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LOCAL GRAMMARS OF MOVEMENT IN FINANCIAL ENGLISH

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Local Grammars of Movement in

Financial English

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Sui Xin

Thesis title: Local grammars of movement in financial English

Abstract:

The present research study explores the local grammars of movement in financial English to illustrate the value and significance of a fuller description of specific kinds of language use with specific language patterns.

In financial settings, the language of 'movement' is closely related to risks and returns, and therefore of great importance to the stakeholders (e.g. Ahmad, Gillam & Cheng, 2005). However, to date the language of movement has not yet been studied systematically. This study fills the gap by describing the local grammars of movement in financial English. It describes and compares the language of four types of movement, namely upward movement, downward movement, no movement, and unspecified movement, across five types of discourses in corporate annual reports, namely public relations discourse, discourse of economics, corporate governance discourse, accounting discourse and legal discourse.

Local grammar refers to a linear grammatical system and focuses on the functions and meanings of the language (Gross, 1993; Hunston & Sinclair, 2000; Barnbrook & Sinclair, 2001). Rather than studying the language as a whole, local grammar deals with only part of the language, and hence a more simple, more precise, and more useful description of the relation between grammatical patterns and meanings and functions (Hunston & Sinclair, 2000).

The corpus analysed was the 1.5-million-word Corpus of Corporate Annual Reports (CCAR) composed of 18 corporate annual reports from the Hang Seng Index constituent companies in Hong Kong. The study is corpus-driven, using *ConcGram*

1.0 (Greaves, 2009) to generate concgram lists of word co-occurrences. From the lists, the most frequent phraseologies of movement in each discourse type were identified.

The local grammars of the 27 phraseologies of movement were examined by concordance analysis. Concordance analysis involved analysing the clauses that contain each phraseology in terms of functional and lexico-grammatical elements. The comparison of the local grammars across the five discourse types in the corporate annual reports reveals that although a few discourses share certain local grammar patterns, each discourse has its unique patterns and characteristics. The distribution of phraseologies of movement and the local grammars of the phraseologies across discourse types confirm Bhatia's (2010) argument that the corporate annual report is made up of different discourses with different communicative purposes and language features.

By exploring the local grammars of the language of movement in financial English, the current study provides a much more thorough description of the local grammars of phraseologies in the CCAR, and has identified various discourse-specific communicative purposes in the annual reports. The study has important implications for teaching and learning in English for Specific Purposes (ESP) and professional communication. The methodology can also be replicated in the study of the local grammars of other genres and communicative contexts.

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Chapter 1 Introduction

1.1 Background of the study

The corporate annual report, which is presented annually by the company to "give a true and fair view of the state of affairs of the company as at the end of its financial year and of its results for the financial year" (Hui & Ng, 2007: 26), is one of the most important genres in financial settings (see, for example, Poe, 1994; Hyland, 1998; Yuthas, Rogers, & Dillard, 2002; Ditlevsen, 2012) and has "long been considered the pulse of corporate realities" (Bhatia, 2010: 39). As widely observed (see, for example, Bhatia, 2010; Ditlevsen, 2012; Dragsted, 2014; Mobasher & Ali, 2015; Sandell & Svensson, 2016), corporate annual reports have at least two communicative purposes: to give a true and fair view of the company's financial status and to establish a positive image of the company. These two different and sometimes contradictory communicative purposes make the genre complex. Bhatia (2010) proposes that corporate annual reports are composed of at least four discourses, namely public relations discourse, discourse of economics, accounting discourse, and legal discourse. These discourses vary in structure, form, content, and linguistic features to serve their different communicative purposes.

Research studies of corporate annual reports have been conducted from different aspects, including readability (see, for example, Schroeder & Gibson, 1990; Rutherford, 2003), textual analysis, with a focus on lexis (see, for example, Malavasi, 2007; Lischinsky, 2011; Murphy, 2013), and genre analysis, with a focus on moves or themes and lexico-grammar (see, for example, Thomas, 1997; Flowerdew & Wan, 2010). However, the majority of the studies focus on only one to three sections, such as chairman's statement (Hyland, 1998; Courtis, 1998; Murphy, 2013; Poole, in press),

management's discussion and analysis (Rutherford, 2002, 2003, 2005), mission statement (Williams, 2008), independent auditor's report (Flowerdew & Wan, 2010), a combination of chairman's statement and management's discussion and analysis (Yuthas et al., 2002), or a combination of chairman's letter, management's discussion and analysis, and notes to financial statements (Schroeder & Gibson, 1990). Only a few studies have covered most sections of the annual reports (Bhatia, 2010; Ditlevsen, 2012; Wang, Li & Cao, 2012), or examined the corporate annual report as a whole text (Lischinsky, 2011).

The state of affairs of the company and the results for the financial year in the corporate annual reports can be examined linguistically by the concept of 'movement', which refers to "a change or development" in financial settings, as in "*movements in the underlying financial markets*" (*Oxford Dictionary of English*, 2005: 1149), or, more specifically, "a change in the price or value of shares, a currency, etc.", as in "*adverse currency movements*" (*Collins Dictionary & Thesaurus of the English Language*, 2011: 676). The changes and developments in financial settings are closely related to the performance of the company in question, and therefore of great importance (see, for example, Bernstein & Wild, 2000; Rutherford, 2005; Chow et al., 2006; Palepu & Healy, 2008; Gibson, 2009). The concept of 'movement' has been investigated from the aspects of metaphor in general English (Lan, 2000) and in financial news (Charteris-Black, 2000; Charteris-Black & Musolff, 2003) and the extraction of sentiment bearing texts in financial news (Ahmad, Gillam & Cheng, 2005; Ahmad, Cheng & Almas, 2006). The current corpus study aims to investigate the language of movement in the financial services by studying how the meaning of movement is construed in corporate annual reports, by combining studies of phraseology and local grammar.

The language of movement can be considered to be a small set of language serving specific functions, and so the present study adopts the approach of local grammar (Gross, 1993) to make a thorough description of the language of movement in the professional genre of corporate annual reports. Gross (1993) introduced finite state

automata and permutation rules to describe local grammars: finite state automata are graphs representing the formation elements of the utterances in a linear order; permutations rules are transformation rules that introduce the relationship of equivalence to modify the finite automata to avoid redundancy. Gross (1993) suggested three steps to generate local grammars, namely to divide the utterances into constituent elements and represent them in a linear order, i.e. in finite state automata; to conduct constituent analysis on these elements, i.e., to map the grammatical, and in some future studies, also the semantic and functional labels in the constituent elements; and by following permutation rules, to identify the equivalent elements of the utterances and rearrange the finite-state graphs.

To date, studies of local grammars have examined small sets of language, including the forms of date expressions (Gross, 1993) and anthroponyms (Nam & Choi, 1997; Baptista, 1998; Baptista, Batista, & Mamede, 2006), and the forms and meanings of sameness and difference (Hunston, 1999), definition (Barnbrook & Sinclair, 2001), evaluation (Hunston & Sinclair, 2000; Bednarek, 2007), and cause and effect (Allen, 2006). These studies confirm the value of local grammar in dealing with a small set of a language.

Language descriptions derived from corpus-driven theories have challenged traditional views about language, including phraseological tendency, the intertwining relation between lexis and grammar, the centrality of the lexical item and its extended units of meaning, and meaning residing in variable units of meaning and always located in texts (Sinclair 1991, 2004; Hunston, 2008). The notion of 'phraseology' refers to "the recurrent co-occurrence of words" (Clear, 1993: 277). The pervasiveness of phraseologies in written and spoken English has been discussed in a number of studies (see, for example, Erman & Warren, 2000; Altenberg, 1998; Biber et al., 1999; Wei, 2009). The majority of the phraseological studies focus on contiguous word combinations, termed as lexical bundles (e.g., Biber et al., 1999), clusters (e.g., Hyland, 2008a), chains (e.g., Stubbs, 2002), or n-grams. However, phraseologies are not confined to contiguous word combinations, but also word co-occurrences with

intervening words, i.e. the skip-grams (e.g. Guthrie et al., 2006), and word co-occurrences with constituency variations and positional variations, termed 'concgrams' (Cheng, Greaves, & Warren, 2006; Cheng et al., 2008). By using *ConcGram 1.0* (Greaves, 2009) as the analyzing tool, the present corpus-driven study identified in a fully automated way concgram lists of different discourse types of corporate annual reports, followed by examination of concordances of the concgrams to identify phraseologies with the meaning of movement for further local grammar analysis. Local grammar refers to "a grammar that describes the language features of specific language patterns or specific kinds of language use" (Cheng, 2012: 215). This local grammar study is the first attempt to systematically examine the lexico-grammatical, semantic and functional features of the language of movement in a financial services genre.

1.2 Key concepts

This section introduces the key concepts examined in the current study to make the analysis and discussion explicit. They are word and phraseology, associatedness or co-selection of words, pattern, and configuration.

The current study adopts the definition of 'word' as "a string of characters lying between spaces" (Sinclair, 2004: 131). When the strings of characters are different, they are considered to be different words; for example, *increase* and *increased* are considered different words.

Phraseology has been defined from various aspects (see section 2.1.2 for details). This study takes a broad view of phraseology in regarding phraseology as "the recurrent co-occurrence of words" (Clear, 1993: 277). There is no strict restriction to the nature of words, i.e. they can be either lexical or grammatical; the span between words, i.e. the amount of intervening words does not matter, as long as the co-occurring words are associated; and the fixedness of the word combinations, i.e. they can be fixed contiguous word combinations or variable discontiguous word combinations (Cheng et

al., 2006). It means that being associated with each other is the only criterion of deciding whether the recurrent co-occurring words constitute phraseology.

The words occurring in the same clause are considered to be co-selected, meaning that they do not co-occur at random but are meaningfully associated or co-selected with each other. The concgrams constituted by associated words were classified as phraseologies, e.g. in the discourse of economics, *decreased*, *per* and *cent* in "Salaries and other costs decreased by 3.7 per cent".

The word 'pattern' refers to the linguistic behavior observed more than once. Local grammar patterns, to be more specific, are presented at two levels. The first level is the lexical grammatical pattern represented by grammatical labels, such as n, v and adj, which represent noun group, verb group and adjective group respectively. The labeling system follows Hunston & Francis (2000) by not differentiating between noun and noun group, verb and verb group, and adjective and adjective group. The second level is the semantic pattern presented by semantic element labels such as 'the thing that moves', 'time of movement' and 'amount of movement', which indicate the unique functions of the elements in the semantic system of movement.

Configuration refers to the phraseological variations identified in the occurrences of the phraseology (Cheng et al., 2006), including both constituency variations (e.g. *increase * HK$# million* and *increase * * * * HK$# million*) and positional variations (e.g. *# per cent increase* and *increase of # per cent*).

1.3 Rationale for the study

1.3.1 Why study phraseology?

In the studies of language, especially in the recent thirty years, the word's position as "the primary unit of lexical meaning" (Sinclair, 2004: 25) has been challenged. It has been widely observed that words do not make meanings by themselves, but by co-selections (see, for example, Sinclair, 1987, 1991, 2007, 2010; Biber, Conrad, & Cortes, 2004; Carter & McCarthy, 2006; Cheng et al., 2006).

Sinclair (1987; 1991) contrasts two principles that explain word co-occurrences: the open-choice principle, which regards word co-occurrences as a wide range of open choices, with grammaticalness being the only restriction, and the idiom principle, which regards word co-occurrences as the result of co-selection. Word choice is decided by these two principles, with the idiom principle dominating the choice (Sinclair, 1991; 2004). The tendency towards the idiom principle is named "phraseological tendency", meaning that "words tend to go together and make meanings by their combinations" (Sinclair, 2004: 29).

Cheng et al. (2006) discuss three major forms of phraseology, namely n-gram (e.g., Biber et al., 2004; Carter & McCarthy, 2006), skipgram (e.g. Guthrie et al., 2006), and concgram (e.g. Cheng et al., 2006). N-gram refers to "contiguous words that constitute a phrase, or a pattern of use, and that recur in a corpus", such as "*a lot of people*" (Cheng et al., 2006: 412). N-grams with intervening words are called skipgrams. The term 'concgram' refers to "all of the permutations of constituency variation and positional variation generated by the association of two or more words" (ibid.: 414). The internal span of the concgrams with three to five words can range from zero to ten, according to the user's setting.

The studies of phraseology have found "clear grammatical relationships" in the word co-selection; however, phraseology "is not a fragment of ordinary English grammar", but deserves "its own, unique local grammar" (Sinclair, 2010: 41). Sinclair (2010) suggests that Gross' (1993) conception of 'local grammar' be adopted in the description of phraseology.

1.3.2 Why study local grammar?

Local grammar, proposed by Gross (1993) and further developed by, for example, Barnbrook & Sinclair (2001), Hunston & Sinclair (2000), and Allen (2006), was adopted by the study for four reasons. They are local grammar does not only investigate the forms, but also the functions and meaning; local grammar is suitable for phraseological study; local grammar focuses on a small set of language; and local grammar studies language in a linear dimension.

First of all, local grammar does not only investigate the forms, but also the functions and meaning construal of the language. Although the notion of 'local grammar' was devised by Gross (1993) for language extraction, with the focus only on the forms (see, for example, Baptista, 1998; Ahmad et al., 2005; Ahmad et al., 2006), studies including Barnbrook & Sinclair (2001), Hunston & Sinclair (2000), and Allen (2006) extend the concept of 'local grammar' to the functions and meaning construal of the language. The purpose of this type of studies is to make a comprehensive description of the language that serves a certain function, so that semantics is regarded as a compulsory component of this type of studies. Barnbrook & Sinclair (2001) argue that a local grammar outperforms a general grammar, because general grammar is structurally oriented, and is not able to work out the functions, while local grammar "stays very close to the functions of the restricted language" (ibid.: 241). Since the current study aims to explore how the meaning of movement is construed in the financial services genre of corporate annual reports and the functions of language in

meaning construal, the local grammar with a focus on form, function, and semantics was considered appropriate.

Secondly, local grammar is a grammatical system developed in the studies of phrases and collocations (Gross, 1993), indicating that it is suitable for phraseological study. Gross (1993) observes that in the studies of phrases and collocations, there are "sets of similar forms" (ibid.: 26) which cannot be well described by the general grammars developed to study the language as a whole. Gross (1993) argues that a local grammar is needed to illustrate how these similar forms can be represented. Gross's (1993) examples to illustrate local grammar, namely synonymous phrases like "*lost his cool*", "*blew his cool*", "*lost his temper*", and "*blew a fuse*" (Gross, 1993: 29), adverbial phrases associated with dates, and expressions of precise dates, are all concerned with phraseologies, rather than the whole clause or the whole sentence. The study of local grammar can thus function effectively at the level of phraseology.

Thirdly, local grammar focuses on a small set of language, and so is most suited to the study of phraseologies of movement in the current study. Compared with general grammars, the local grammar focuses on the structures and features of only a small set of a language, which can be "one set of meanings" (Hunston, 2002: 90) or a "subset of normal language, the sub-language" (Barnbrook, 2002: 94). It can be expected that the small set of a language does not use all the grammatical structures of the language and does not have all the linguistic features (Barnbrook & Sinclair, 2001). Hunston & Sinclair (2000) argue that when dealing with a small set of language, analysis using local grammars can be more simple, by using a limited number of terms; more precise, since each local grammar could be stated in its own terms; and more useful, due to its relation with the discourse function. Rather than reducing the rules of the general grammar to avoid non-specialised sentences being produced, the local grammar devises a unique grammar and "relies very little on received categories" (Barnbrook & Sinclair, 2001: 241), e.g. subject and object, in the general grammar.

Fourthly, local grammar is one of the few grammatical systems, together with the Grammar of Speech (Brazil, 1995), Pattern Grammar (Hunston & Francis, 2000), and Linear Unit Grammar (Sinclair & Mauranen, 2006), that investigate language in a linear dimension, which conforms to the dimension of language utterance, not only of the spoken language (Brazil, 1995), but also of the written language, with spoken language being linear in the dimension of time and written language being linear in the dimension of space (Sinclair & Mauranen, 2006).

In sum, for these four reasons, local grammar is adopted as the approach to the description of the language of movement in a specialised professional genre, corporate annual reports, in the financial services industry.

1.3.3 Why study corporate annual reports?

Corporate annual reports refer to the reports presented annually by the company to "give a true and fair view of the state of affairs of the company as at the end of its financial year and of its results for the financial year" (Hui & Ng, 2007: 26). The corporate annual report is "a yearly record of a corporation's financial condition that must be distributed to shareholders under securities and exchange commission regulations. Included in the report is a description of the company's operations as well as its balance sheet and income statement" (*Dictionary of Finance and Investment Terms*, 2010: 31). As an important corporate disclosure (see, for example, Poe, 1994; Hyland, 1998; Yuthas et al., 2002; Bhatia, 2010), corporate annual reports have a wide range of target readers, including shareholders, managers, financial analysts, employees, lenders, suppliers, customers, government, and the investing public (Anderson & Imperia, 1992; Chow et al., 2006; Gibson, 2009).

Corporate annual reports are composed of various sections, including chairman's statement, report of the directors, report of the auditors, financial statements, notes to

the financial statements, management's discussion and analysis, and five-year summary of selected financial data (Hui & Ng, 2007; Fraser & Ormiston, 2007; Gibson, 2009; Wang et al., 2012). Bhatia (2010) proposes that "annual report was a typical combination of at least four interesting but different discourses included in the same document" (ibid.: 39):

- *Accounting discourse*, which forms a major part of the Annual Reports, duly endorsed, certified by public accountants.
- *Discourse of economics*, in the form of what is conventionally known as the financial review section of the report.
- *Public relations discourse*, in the form of the chairman's letter to shareholders, for which public accounting firms do not take any responsibility.
- *Legal discourse*, which forms a major part of disclaimers, often necessary to comprehend the full implications of the information disclosed in the report.

(Bhatia, 2010: 39)

Despite the importance of corporate annual reports, most studies have focused on only one or a few parts of corporate annual reports (see, for example, Schroeder & Gibson, 1990; Hyland, 1998; Murphy, 2013; Poole, in press), such as the section of chairman's statement, the operating and financial review section, and the auditor's report, rather than studying and comparing all the sections (Bhatia, 2010; Wang et al., 2012). In addition, these studies usually focus on the readability (Schroeder & Gibson, 1990; Courtis, 2004), lexis (Yuthas et al., 2002; Rutherford, 2005), or topics (Kohut & Segars, 1992; Flowerdew & Wan, 2010) of corporate annual reports. This study aims to describe the local grammars of the phraseologies of movement in all the sections of corporate annual reports.

In the pilot stage of the present study, a close study of 18 corporate annual reports of Hang Seng Index constituent companies suggested that at least one more discourse can be added to Bhatia's (2010) four kinds of discourses. It is corporate governance discourse, composed of such sections as corporate governance report, report of the

directors, risk management report, remuneration report, and biographical details of directors and senior management. All the other sections are classified into the four types of discourse according to their primary communicative purposes.

1.3.4 Why study the language of movement in corporate annual reports?

In finance, *movement* refers to "a change or development", as in "*movements in the underlying financial markets*" (*Oxford Dictionary of English*, *2005*: 1149), or, more specifically, "a change in the price or value of shares, a currency, etc.", as in "*adverse currency movements*" (*Collins Dictionary & Thesaurus of the English Language*, *2011*: 676). In financial settings, especially in corporate annual reports, the changes and development of a number of indicators such as assets, liabilities, capital strength, profitability, and growth potential (Thomsett, 2007) are of great importance for the investors and managers to assess the corporations' performance and to make investment decisions, for financial analysts to forecast future performance (Bernstein & Wild, 2000; Rutherford, 2005; Chow et al., 2006; Palepu & Healy, 2008; Gibson, 2009), and for the other readers or stakeholders, including employees, lenders, suppliers, and customers, to understand the operational and financial situation of the corporation and to make decision of future cooperation (Chow et al., 2006; Gibson, 2009). Despite its importance, the language of movement in corporate annual reports has not yet been studied, except for the word frequency description of the words indicating 'comparison' (Rutherford, 2005). The current study represents the first attempt to systematically investigate the language of movement in the five discourses in corporate annual reports. The following examples of the language of movement are extracted from the dataset of the present study: 'The Group recorded an increase in turnover for the eighteen months ended 31 December 2009 of HK$1,738 million' (the discourse of economics), 'Underlying earnings per share were HK$4.84, an increase of one per cent from last year.' (the public relations discourse).

1.4 Objectives of the study

Based on the rationale above, the study examines the language of movement in corporate annual reports with the aims to make a comprehensive description of the local grammars of movement in the five discourses of corporate annual reports and to explore the similarities and differences in the local grammars of movement across movement types and across discourse types. Specifically, the following objectives will be achieved:

1) To identify and examine the phraseologies that construe the meanings of movement in the five discourses of corporate annual reports in order to find out how the meanings of movement are construed in corporate annual reports;

2) To identify and describe the local grammars of movement in each of the five discourse types of corporate annual reports in order to make a thorough description of the forms, functions and semantics of different types of movement specific to discourse types in corporate annual reports; and

3) To compare and contrast the local grammars of movement across discourse types and across movement types in order to identify similarities and differences of the language of movement across discourse types and across movement types in corporate annual reports so as to explore the linguistic features of corporate annual reports.

1.5 Research questions

The study examined 18 corporate annual reports of the Hang Seng Index constituent companies collected from their websites to address the following research questions:

1) What are the phraseologies used to construe the meanings of movement in the five discourses of corporate annual reports?

2) What are the local grammars of movement in the five discourses of corporate annual reports?

3) How are the local grammars of different types of movement similar to and different from each other across discourse types and across movement types in the corporate annual reports?

1.6 Overall structure of the study

Chapter 2 presents a literature review of concepts, theories and empirical research studies related to phraseology (2.1), local grammar and concepts and research studies related to local grammar (2.2), discourse-specific, genre-specific and profession-specific genres, with a focus on corporate annual reports (2.3), and the language of movement in discourse and genre analysis (2.4). In Chapter 3, the data used in the study (3.1) and the research methodology (3.2) are described in detail. Chapter 4 presents findings of the local grammars of phraseologies of movement in each discourse, followed by the local grammars of each movement type in each discourse. Chapter 5 discusses the comparative findings across discourse types (5.1) and across movement types (5.2), and discusses major findings with reference to the literature on phraseologies, local grammars, as well as discourse-specific, genre-specific and profession-specific genres (4.8). Chapter 6 summarises the major findings with reference to the research questions (6.2), discusses implications and limitations (6.3), and makes suggestions for future research (6.4).

Chapter 2 Literature review

As stated in Chapter 1, the present study focuses on the local grammars of the phraseologies of movement in corporate annual reports. This chapter reviews relevant previous studies related to phraseology (2.1); local grammar (2.2); discourse-specific, genre-specific and profession-specific genres, with a focus on corporate annual reports (2.3); and the language of movement in discourse and genre analysis (2.4) in order to identify the research gap for the present study and justify the theoretical and analytical approaches adopted for the present study.

2.1 Phraseology

This section discusses some of the key issues in the study of phraseology and reviews previous research work. First, the open-choice principle and idiom principle (Sinclair, 1991) are discussed to illustrate the phenomena of word co-occurrences. The three forms of word co-occurrence are introduced, namely n-gram, skipgram, and concgram (Cheng et al., 2006), and research studies of these three forms are reviewed. Then research studies of the three categories of phraseology (Greaves & Warren, 2008; Warren, 2008) are discussed, namely meaning shift units (MSU) (Sinclair, 2007), collocational frameworks (Renouf & Sinclair, 1991), and organisational frameworks (Greaves & Warren, 2008; Warren, 2008).

2.1.1 Open-choice principle and idiom principle

The word has long been regarded as "the primary unit of lexical meaning" (Sinclair, 2004: 25). This concept can be observed from any dictionary, in which the words are listed together with a meaning or several meanings. Idiomatic phrases are sometimes listed at the end of the entry, explaining that these word combinations have a meaning which cannot be directly derived from "simple concatenation"

(ibid.: 26) of the consisting words. However, these word combinations are considered to be "anarchic, individual, unstable, one-off items that just do not fit into a tidy description" (ibid.: 27).

Two principles are adopted to interpret word co-occurrences, namely the open-choice principle and the idiom principle (Sinclair, 1987; 1991). The open-choice principle states that word co-occurrence is viewed as a large range of open choices, and the only restriction to the choice is grammaticalness (Sinclair, 1991). The open-choice principle is also named as a "slot-and-filler" (ibid.: 109) model, in which language is described as a series of slots that can be filled in by any word as long as it is grammatical. It is a traditional way of studying language. The tendency towards the open-choice principle, named "terminological tendency", regards a word as having "a fixed meaning in reference to the world", so that when speaking of the referent, the speakers would use the word (Sinclair, 2004: 29).

But actually, speakers do not have as much freedom as it is perceived in the open-choice principle (Sinclair, 1991). For example, we can only say *strong tea* and *powerful engine*, rather than *powerful tea* and *strong engine*, even though the meanings of *strong* and *powerful* are interchangeable and both words are grammatical in these situations (Halliday, 1966). Sinclair (1991) argues that when making utterances, speakers have a great amount of semi-preconstructed phrases to choose from, rather than numerous single words. The tendency that words do not occur at random but are co-selected is called the 'idiom principle' (Sinclair, 1991; 1996). For example, "*of course*" (Sinclair, 1991: 110) is a phrase in which *of* and *course* are selected simultaneously. In this phrase, both the words lose their original meaning and make a new meaning by their combination. The co-selection of words is not decided by grammar as it is claimed in the open-choice principle. The tendency towards the idiom principle is named "phraseological tendency", which states that "words tend to go together and make meanings by their combinations" (Sinclair, 2004: 29).

The open-choice principle and the idiom principle work together to decide word choice, and as argued by Sinclair (1991; 2004), the idiom principle dominates in

the choice. During the use of language, "the first mode to be applied is the idiom principle" (Sinclair, 1991: 114). After the occasional situations where the open-choice principle functions, the mode quickly switches back to the idiom principle again (Sinclair, 1991).

Sinclair's (1991; 2004) argument was supported by the empirical study by Erman & Warren (2000), who studied the distribution of prefabricated and non-prefabricated word combinations by analysing 19 extracts, with seven extracts of 600-800 words from different texts in the *London Lund Corpus* (LLC) *of Spoken English*, ten extracts of 100-400 words from different texts in the *Lancaster-Oslo-Bergen* corpus (LOB) to represent written English, and two extracts of 400 words from two versions of *Goldilocks*, to explore the relationship between the open-choice principle and the idiom principle. The word 'prefabs' was used to refer to the preconstructed multi-word combinations, i.e. the co-selection of words based on the idiom principle (Erman & Warren, 2000). The prefabs were classified into lexical prefabs (e.g. "*run off*", "*intensive care*"), grammatical prefabs (e.g. "*a bit of*", "*very much*"), pragmatic prefabs (e.g. "*and then*", "*well you know*"), and reducible prefabs (e.g. "*I'm*", "*don't*") (ibid.: 38-45).

In the study, each word was considered to be a slot (Erman & Warren, 2000). The slot can be filled by a word which is chosen according to the open-choice principle or a word being part of a prefab. Then the slots filled by the words chosen according to the open-choice principle were replaced with dashes and the words being parts of prefabs were left to indicate the alternation of open-choice principle and idiom principle. Erman and Warren's (2000) study provided evidence to the importance of the idiom principle by finding that more than half of the slots (55.38%) are filled by prefabs. It means that more than half of the word combinations follow the idiom principle. The prefabs tend to occur slightly more frequently in spoken language (58.6%) than in written language (52.3%). Although the difference of frequency between written and spoken language is not as great as it was expected, the distribution of prefab types is strikingly different. Erman & Warren (2000) observed that in written discourse, 71.5% of the prefabs are lexical ones, while in spoken discourse, the lexical prefabs only take 38.8%. The

proportion of grammatical prefabs, pragmatic prefabs, and reducible prefabs in spoken discourse (20.5%, 16.7%, and 24% respectively) is higher than that in written discourse (16.9%, 2.4%, and 9.2% respectively), especially the proportion of the pragmatic prefabs and reducible prefabs. Erman & Warren's (2000) study provided evidence to the cooperation of the idiom principle and the open-choice principle in word choice and the dominant position of the idiom principle.

2.1.2 Concept of 'phraseology'

The word co-selection described by the idiom principle is closely related to the notion of 'phraseology', which has been defined from various aspects.

Some linguists define phraseology with a focus on the fixedness of word combinations. For example, Piirainen (2008: 208) defines phraseology as "the totality of fixed multi-word units of a language, i.e. formulaic expressions that are elements of the lexicon and that go beyond the level of a single word but do not go beyond sentence level". The fixedness of phraseology has long been regarded as an important factor to define phraseology. Cowie (1981) classifies word combinations into four categories, from totally free combination, e.g. "*blow a trumpet*", at one end of the continuum, to restricted collocation, e.g. "*blow a fuse*", figurative idiom, e.g. "*blow your own trumpet*", to pure idiom, e.g. "*blow the gaff*" (ibid.: 228) at the other end of the continuum. In the traditional view, pure idioms, the word combinations whose meanings cannot be identified from their constituents, are considered to be the core of phraseology, and the flexible word combinations are marginalised or even excluded. Gläser (1998) states that idioms are the majority and prototype of the phraseological unit. The confinement of phraseology to fixed word combinations is called "the phraseological approach" to the study of multi-word units (Granger & Paquot, 2008: 27).

However, word combinations are not confined to fixed phrases such as *of course* (Sinclair, 1991; 1996). In fact, corpus studies show that fixed phrases are very few in English, while the phraseological variation is much more pervasive.

Phraseological variation makes the phrases flexible and enables them to fit into the surrounding context (Sinclair, 1996).

Sinclair (1991) suggests that phraseological variation is manifested in seven ways. First, many phrases do not have fixed boundaries. For example, "*set eyes on*" is observed to frequently co-occur with a pronoun subject, and with *never* or temporal conjunctions like "*the moment*", "*the first time*" (ibid.: 111). It is difficult to decide whether the co-occurring elements are part of the phrase or whether they just manifest the nature of collocation. Second, the lexical constituents of phrases may vary. For example, in the phrases of "*in some cases*" and "*in some instances*" (ibid.: 111), *cases* and *instances* can substitute each other without the change of meaning. Third, the syntactic components of phrases may vary. For example, in the phrase "*it's not in his nature to*" (ibid.: 111), *is* can be replaced by *was*, and *not* can be replaced by *hardly*, *scarcely*, etc. Fourth, the word order of phrases can be changed; for example, we can say "*to recriminate is not in his nature*" or "*it is not in the nature of an academic to ...*" (ibid.: 111). Fifth, many words and phrases tend to co-occur with many other words, e.g. "*hard work*", "*hard luck*", "*hard evidence*" (ibid.: 112). Sixth, many words and phrases tend to co-occur with some grammatical choices. For example, the phrase "*set about*" is observed to co-occur frequently with the *-ing* form, e.g. "*set about leaving*" (ibid.: 112). Seventh, many words and phrases have a tendency to occur in a specific semantic environment; for example, *happen* is observed to be associated with unpleasant settings.

Gries (2008) proposes an inclusive definition of 'phraseology', 'phraseologism', from six parameters:

i.   the nature of the elements involved in a phraseologism
ii.   the number of elements involved in a phraseologism
iii.   the number of times an expression must be observed before it counts as a phraseologism;
iv.   the permissible distance between the elements involved in a phraseologism;
v.   the degree of lexical and syntactic flexibility of the elements involved; and
vi.   the role that semantic unity and semantic non-compositionality / non-

predictability play in the definition.

(Gries, 2008: 4)

Based on these parameters, a phraseologism or phraseology is defined as:

the co-occurrence of a form or a lemma of a lexical item and one or more additional linguistic elements of various kinds which functions as one semantic unit in a clause or sentence and whose frequency of co-occurrence is larger than expected on the basis of chance (Gries 2008: 6).

Gries (2008) gives a rather broad definition of phraseology, where both contiguous and non-contiguous word co-occurrences are included, and both fixed patterns, e.g. "*by and large*" (ibid.: 5), and flexible patterns, e.g. "V DO *into* V-*ing*" (ibid.: 5), are included. However, Gries' (2008) definition also has its limitation by being confined to lexical words and excluding the co-occurrences of grammatical words, such as *the…of*.

This study takes a broad view of phraseology in regarding phraseology as "the recurrent co-occurrence of words" (Clear, 1993: 277). There is no strict restriction to the nature of words, i.e. they can be either lexical or grammatical; the span between words, i.e. the amount of intervening words does not matter, as long as the co-occurring words are associated; and the fixedness of the word combinations, i.e. they can be fixed contiguous word combinations or variable discontiguous word combinations (Cheng et al., 2006).

2.1.3 Forms of phraseology: n-gram, skipgram, and concgram

Cheng et al. (2006) discussed three major forms of phraseology, namely n-gram (e.g., Biber et al., 2004; Carter & McCarthy, 2006), skipgram (e.g., Guthrie et al., 2006), and concgram (e.g., Cheng et al., 2006).

2.1.3.1. N-gram

N-gram, which is also termed as lexical bundle (e.g., Biber et al., 1999), cluster (e.g., Hyland, 2008a), and chain (e.g., Stubbs, 2002), refers to "contiguous words that constitute a phrase, or a pattern of use, and that recur in a corpus", such as "*a lot of people*" (Cheng et al., 2006: 412). It is the category that has attracted the most attention among the three forms (e.g. Biber et al., 1999; 2003; 2004; Cortes, 2004; Nesi& Basturkmen, 2006; Hyland, 2008a; Wei, 2009), because n-grams can be identified most easily.

Biber et al. (1999) studied the lexical bundles in the registers of conversation and academic prose by analysing 7 million words of conversation and 5.3 million words of academic prose chosen from the *Longman Spoken and Written English Corpus*, and classified the lexical bundles based on their structural patterns. The researchers confined the lexical bundles being studied to a recurrent sequence of three or more words occurring at least ten times per million words in a register and spreading across at least five different texts in the register. Since the longer the bundle is, the less frequently it is expected to occur, the frequency of occurrence of the five-word and six-word lexical bundles was required to be at least five times per million words (Biber et al., 1999). But the series of studies by Biber et al. also indicated that the frequency cut-off and the length of lexical bundles can vary according to the scope of the study.

Biber et al. (2003) further studied the lexical bundles in speech and writing based on the study of Biber et al. (1999), finding that although lexical bundles are used frequently in both conversation and academic prose, lexical bundles in these two registers are dramatically different with each other in the structures, recurrent composing words, and discourse functions .

Biber et al. (2004) extended their previous studies of lexical bundles to two university registers: university teaching and textbooks, and compared them with those in conversation and academic prose. Findings show that among the four

registers, classroom teaching exceeds the other three registers in lexical bundle types. A close relationship exists between the structures and discourse functions of the lexical bundles, and the distribution of lexical bundles across structures and discourse functions vary from register to register.

Nesi & Basturkmen (2006) examined lexical bundles in academic lectures from the aspect of cohesion. 160 monologic lectures (1,270,798 words) were selected from the *British Academic Spoken English* (BASE) *Corpus* and the *Michigan Corpus of Academic Spoken English* (MICASE). Four-word lexical bundles that occur more than ten times were studied. The study indicated that 18 of the 20 most frequently occurring lexical bundles signal discourse relations and stance expressions. Their study indicated that lexical bundles can organize discourse in lectures and argued that understanding the discourse signaling functions of lexical bundles helps the students to predict the nature of the upcoming discourse, so as to understand the lectures more effectively.

Neely & Cortes (2009) investigated five discourse organizing lexical bundles selected from Biber et al. (2004) and Nesi & Basturkmen (2006) that function as topic introduction/focus in the university teaching in the *Michigan Corpus of Academic Spoken English* (MICASE) to examine the feasibility of using corpus study to enhance the understanding of the function of these bundles and to design class materials. The selected five topic-introducing bundles in the speech of instructors and the speech of students respectively were examined to determine their discourse functions. The findings showed that the functions of these five lexical bundles are not confined to topic introduction/focus, but also topic elaboration/clarification, quantifier, and directives. The proportions of the functions of each lexical bundle are different in the instructor's speech and in the student speech. Lexical bundles have various functions in academic lectures and one lexical bundle may have several different functions. Neely & Cortes (2009) argued that it is important for students to be aware of these functions.

In another study, Cortes (2004) examined the use of lexical bundles by published authors in the fields of history and biology from the aspects of structure and

function, and compared the results with the use of lexical bundles by students in the same disciplines to further identify the functions of lexical bundles in academic prose. The four-word lexical bundles occurring at least 20 times in a million words in the corpus of published writing were identified and classified according to the structural taxonomy by Biber et al. (1999) and functional taxonomy by Biber et al. (2003).

Similar structural features of the lexical bundles were identified in the published history writing and published biology writing, e.g. the domination of nominal phrases and prepositional phrases (Cortes, 2004), which were in line with the findings of Biber et al. (1999). Cortes (2004) identified two major functions of lexical bundles in published history writing, namely referential function and text organizers; while in published biology writing, the lexical bundles are generally referential bundle, text organizer, stance bundle, and some other subject-specific bundles. The comparison of the use of lexical bundles between published and student writing in both disciplines showed that the majority of the lexical bundles identified in published writing are seldom or never used by the students at all levels and students tend to repeat lexical bundles many times in a paper (Cortes, 2004). Cortes (2004) concluded that simple exposure to frequently occurring lexical bundles in certain disciplines may not evoke the students' awareness of the use of lexical bundles, suggesting that it is necessary to introduce the use of lexical bundles to students and encourage them to use them in their writing.

Hyland (2008b) regards lexical bundles as "extended collocations which appear more frequently than expected by chance" (ibid.: 4), contributing to meaning shaping and text coherence. He conducted a study of four-word lexical bundles in the disciplines of electrical engineering, biology, business studies, and applied linguistics by studying a 3.5-million-word corpus of research articles, PhD dissertations, and master theses from these four disciplines, with electrical engineering and biology representing applied and pure sciences and business studies and applied linguistics representing social sciences. The four-word lexical bundles that occur at least 20 times in at least 10% of the texts were selected for the study. He found 240 different four-word lexical bundles in approximately 16,000

cases, which constituted 2% of the total words. Differences were observed in the frequencies, constituent words, structural patterns, and functions of the lexical bundles across these four disciplines, indicating that the features of lexical bundles are discipline-specific.

Carter & McCarthy (2006) used the term 'cluster' to refer to the contiguous word combination to emphasise their observations that "words cluster together" (ibid.: 828). By studying the *Cambridge International Corpus* (CIC), an international corpus consisting of 700 million words with a wide variety of text types, Carter & McCarthy (2006) found that although clusters occur frequently in spoken language and written language, the most common clusters are different and "the most frequent clusters consist of two and three words" (ibid.: 831), with longer clusters being often extensions of shorter clusters.

In Altenberg (1998), the term 'recurrent word-combination' was used to represent "any continuous string of words occurring more than once in identical form" (ibid.: 101). The *London-Lund Corpus of Spoken English* was studied. It is found that over 80 per cent of the words occur in the forms of recurrent word-combination, providing further evidence of the pervasiveness of phraseology. Word-combinations were classified into three structural categories, namely full clauses (independent full clauses 8% and dependent full clauses 2%), clause constituents (multiple clause constituents 56% and single clause constituents 20%), and incomplete phrases (14%), with clause constituents being the most frequent. Altenberg's (1998) study revealed that most word-combinations are not completely frozen, but "occupy a position along the cline between fully lexicalized units and free constructions" (ibid.: 121), indicating the indispensable relationship between lexicon and grammar.

Wei (2009), adopting Altenberg (1998) as a referential framework, investigated Chinese learner spoken English in the Chinese Learners Spoken English Corpus (COLSEC) to find out the use of lexical bundles by Chinese learners and differences in the use of lexical bundles between learners and native speakers of English. The focus of the study was on the lexical bundles with at least three words,

since, as observed by Wei (2009), a large number of 2-word chunks are compound nouns (e.g., *college education*) or words with grammatical information (e.g., *we are*). Although similarities were observed in the pervasiveness of lexical bundles and in lexical bundle distribution across structural types between learners and native speakers of English, findings showed that learners use less full clause lexical bundles than native speakers, implying the weakness of learners in the use of "clause-level ready-made chunks to realize pragmatic meanings" (Wei, 2009: 291). Wei (2009) also found that learners use more chunks to make propositions and fewer chunks to fulfill pragmatic functions, indicating the learners' neglection of the pragmatic qualities of discourse, such as cooperativeness and politeness. From the frequent occurrence of the sequence *it is very ADJ*, learners were found to "have developed their own characteristic ways of realizing evaluative meaning" (ibid.: 292). The sequence *with the development of*, which was found frequently in COLSEC but rarely in the native data, serves important discoursal and pragmatic roles in learners' speech and shows a positive semantic prosody, from the co-selection of such words as *country*, *economy*, and *society*. This finding indicated the influence of socio-cultural factors on language use. Wei's (2009) study further supports the pervasiveness of phraseology, irrespective of speakers and their levels of English language proficiency.

2.1.3.2 Skipgram

The studies described in 2.1.3.1 illustrate the use of n-grams in various disciplines, but it is also noticed that when the n-grams are intervened by a word or a few words, they cannot be retrieved and studied (e.g. Guthrie et al., 2006). The n-grams with intervening words are called skipgrams, which are "non-contiguous word associations" (Cheng et al., 2006: 412). They are currently limited to 4-skip tri grams (Guthrie et al., 2006). A technique called 'skipgram modeling' was developed to skip the intervening words and retrieve the skipgrams; for example, in the utterance of "*I hit the tennis ball*" (ibid.: 1), one could argue that *hit the ball* is a tri-gram, with *tennis* as the intervening word. With the skipgram modeling, the

intervening word *tennis* can be skipped and the tri-gram *hit the ball* can be identified.

The term 'k-skip-n-grams' was used to represent the n-grams allowing a skip distance of k, with 'n' representing the number of words that constitute lexical bundle and 'k' representing the maximum number of intervening words allowed to occur within the lexical bundle (Guthrie et al., 2006). For example, if only considering the forms of word combinations, one could argue that there are three tri-grams in the sentence "*Insurgents killed in ongoing fighting*" (ibid.: 1), namely *insurgents killed in*, *killed in ongoing*, and *in ongoing fighting*. Ten 2-skip-tri-grams can be identified from the sentence, namely *insurgents killed in*, with no word skipped, *insurgents killed on going*, with the word *in* skipped, *insurgents killed fighting*, with the words *in* and *ongoing* skipped, *insurgents in ongoing*, *insurgents in fighting*, *insurgents ongoing fighting*, *killed in ongoing*, *killed in fighting*, *killed ongoing fighting*, and *in ongoing fighting*.

In Guthrie et al. (2006), different genres of news-related texts were studied to examine the coverage of skipgrams in comparison with that of standard n-grams. The texts studied were 300,000 words of news feeds from the Gigaword English Corpus, with the British National Corpus (BNC) and the Gigaword English Corpus as training corpora. Firstly, the BNC was used as the training corpus and all the possible skip-bi-grams in the BNC were identified. Then the coverage of these skip-bi-grams was studied in the 300,000 words of newswire from the Gigaword corpus. Findings showed that the coverage of the skip-bi-grams increases with the number of skipped words allowed, with the coverage of the standard bi-grams being the lowest (79.80%) and the coverage of the 4-skip bi-grams the highest (84.82%). Secondly, almost the same experiment was conducted to study tri-grams, and found that the coverage of the skip-tri-grams also increases with the number of skipped words allowed, with the coverage of standard tri-grams at 45% and 4-skip tri-grams at 54.55%. Although the coverage increases, the coverage of 4-skip tri-grams is still not very high. Based on the findings, Guthrie et al. (2006) argued that the relatively low coverage is due to the fact that the BNC is not a news-specialised corpus, so it is natural that the BNC does not have many n-grams in common with

the news-specialised data. The researchers further argued that this feature can help to identify texts that are in the similar domains to the training corpora.

To test the feature, Guthrie et al. (2006) used the BNC as the training corpus to test the coverage of skip-tri-grams in British newspaper extracts and news extracts translated by the Google automatic translation engine. The British newspaper extracts represent standard English and the translated texts represent machine translated texts. The study indicated that in all texts the coverage of skipgrams increases with the increase of the number of skipped words, but the coverage in standard English is much higher than that in machine translated texts, with the coverage of 4-skip tri-grams at 67.55% and 40% respectively.

Guthrie et al. (2006) also compared the increase in the coverage of standard tri-grams and 4-skip tri-grams by increasing the size of the training corpus. Their study showed that the coverage of 4-skip tri-grams reaches 69% when 50 million words were used as the training corpus, while the 200 million-word training corpus was needed to achieve a similar coverage of standard tri-grams.

The search for 'phrase-frames' in the interfaces of 'Phrases in English' (PIE) developed by Fletcher (2006) represents an example of automatic skipgram search. However, phrase-frames, defined as "sets of variants of an n-gram identical except for one word" (Fletcher, 2006, webpage), are slightly different from the skipgrams studied by Guthrie et al. (2006) in that phrase-frames are not confined to variants of the n-grams with no more than three words, but extended to two to eight words, with only one variant word allowed. The variant word, represented by the wildcard symbol *, can either be an intervening word, or a word adjacent to the n-gram, "*in the * of the*", "*by the end of the **" (Fletcher, 2006).

2.1.3.3 Concgram

The retrieval of skipgrams has enabled the identification of non-contiguous word associations, but not when the position of the constituent words in the phrase

changes (i.e. AB, BA) (Cheng et al., 2006). Furthermore, skipgram search is limited in the number of variant words (Guthrie et al., 2006; Fletcher, 2006). The program ConcGram© or *ConcGram 1.0* developed by Greaves (2005) aims to retrieve all the potential phrases constituted by two to five words with the span of up to ten words, in spite of their constituency variation or positional variation.

ConcGram 1.0 is a phraseological search engine designed to automatically retrieve instances of word co-occurrence (Greaves, 2009). *ConcGram 1.0* enables the fully automatic retrieval of word co-occurrences irrespective of positional variation or constituency variation, without prior intervention by the user (Warren, 2009). The automatically retrieved word co-occurrences, i.e. the concgrams, are only raw data, containing both associated words (i.e. phraseologies) and unassociated ones. Analysis would be needed to distinguish the associated words from the unassociated ones (Warren, 2009).

Very few studies have been conducted with the program. Cheng et al. (2006) demonstrated the analysis of three two-word concgrams, two three-word concgrams, two four-word concgrams, and one five-word concgram in the Hong Kong Corpus of Spoken English as examples to illustrate what the concgrams are like, how the concgram analysis is conducted, and the relationship between word association and statistical tests. The authors found that non-contiguous collocations are common and vary in both constituency and position.

The application of *ConcGram 1.0* in the teaching and learning of phraseology was discussed by Cheng (2007). Cheng et al. (2008) analysed the two-word concgram *play/role* in detail as an example to illustrate the procedure of analysing concgrams and the interpretation of the raw concgram data. Cheng (2009) argued that "the canonical form of a concgram, as well as the non-canonical forms of a concgram which share a similar meaning with the canonical form, constitute phraseology" (ibid.: 173).

Xu (2009) used *ConcGram 1.0* in the study of identity in story telling by the English major students. *ConcGram 1.0* was used to identify the collocations of

identity in a corpus of spoken narrative of past experience with 548,694 words. The tentative findings indicated that the general identity of English major students is girlish, identified from the collocates of *I* and *my*, such as *mother*, *girl*, *cried*, *beautiful*, and *frightened*.

The search for concgrams challenges the traditional key word in context (KWIC) display, in which the node is regarded "as the centre of attention and the words associated with the node as being in a subordinate relationship to it" (Cheng et al., 2006: 414). In the display of concgrams searches, all the associated words of a concgram are highlighted in the concordance lines so that the focus is shifted from the node to word co-occurrences. To avoid assigning a central position to any word, the term 'node' is abandoned in ConcGram©. Instead, the term 'origin' is adopted to refer to "the word or words which are the source of automated concgram searches in order to emphasise the important difference between ConcGram and KWIC displays" (Greaves, 2009: 4).

Cheng et al. (2006) studied the Hong Kong Corpus of Spoken English (HKCSE) with ConcGram© and demonstrated the analysis of several concgrams as examples, namely two-word concgrams *alright/so*, *call/what*, *high/low*, three-word concgrams *correctness/incorrectness*, *challenges/facing/we*, four-word concgrams *case/is/the/this*, *come/to/the/we*, and five-word concgram *can/you/I/know/mean*. The researchers argued that the co-selection of *I mean* and *you know* draws the attention of the hearer and attracts them to agree with the suggestion. A main finding was that "the majority of concgrams seem to be made up of non-contiguous collocations, and show both constituency (AB, ACB) and positional (AB, BA) variations" (Cheng et al., 2006: 431).

2.1.4 Categories of phraseology

Initial studies of concgrams (Greaves & Warren, 2008; Warren, 2008) have found three broad categories of phraseology: meaning shift units (Sinclair, 2010) formerly termed 'lexical items' (Sinclair, 1996; 2004), which are extended units of meaning;

collocational frameworks (Renouf & Sinclair, 1991) which are comprised of grammatical words which frame message-oriented elements of the discourse; and organisational frameworks which have an organisation-oriented function in the discourse (Greaves & Warren, 2008; Warren, 2008).

Sinclair (1996) argued that the traditional idea of a word having meaning by itself could be marginalized to the fields with high speciality, such as the species of plants and animals. In contrast, the meaning of a word is not determined by itself, but together with other words around it. The meaning of a word is decided by the context and the co-occurrence of words, word classes, meanings and attitudes. Sinclair (1996) proposed that the concept of a linguistic item can be extended, and units of meaning are mainly phrasal. His notion of 'lexical item' describes the extended units of meaning and the five categories of co-selection, i.e. two obligatory categories, namely core and semantic prosody, and three optional categories, namely collocation, colligation, and semantic preference.

'Meaning shift unit' (MSU) (Sinclair, 2007) conveys the same notion as 'lexical item'. 'MSU' is preferred by Sinclair (2007) over 'lexical item', mainly for two reasons. Firstly, by using MSU, Sinclair (2007: 3) emphasises that "the co-selection of the constituents causes a shift in the ambient meaning". When the co-selected words change, it would lead to a shift in meaning. In this way, the shift in meaning is due to different co-selections rather than different individual words. Secondly, 'lexical item' is not preferred because it "is associated with dictionaries rather than structures" (ibid.: 3).

The co-selection of words is not limited to lexical words, but also applicable to grammatical words. The notion of 'collocational framework' was proposed by Renouf & Sinclair (1991) to describe the phenomena that "grammatical words have collocates" and "common grammatical words also combine with each other in various ways" (ibid.: 128). The co-occurrences of grammatical words are called 'frameworks', which are composed of "a discontinuous sequence of two words, positioned at one word remove from each other" (ibid.: 128), such as "*a* + ? + *of*", "*be* + ? + *to*" (ibid.: 129). The intermediate word represented by '?' is the

'collocate' of the framework, for example, *lot* is the collocate of the framework '*a + ? + of*'. Marco's (2000) concept of 'framework' was slightly different from that of Renouf & Sinclair's (1991), by allowing the collocate within the framework to be either a word or "a word and its modifiers" (Marco, 2000: 64).

Warren & Leung (2016) is the first attempt to study collocational frameworks in terms of local grammar. In their study, four collocational frameworks, namely *any ... may*, *may ... any*, *any ... shall*, and *shall ... any*, were studied in the Hong Kong Engineering Corpus (HKEC) and the Hong Kong Financial Services Corpus (HKFSC). Different from Renouf & Sinclair (1991), Warren & Leung (2016) adopted a broader definition of collocational framework by not confining the number of intervening words between the two grammatical words. The study found that these collocational frameworks are highly specific to the ordinances sub-corpora consisting of regulative or legal texts (i.e. the Hong Kong Engineering Ordinances Corpus, abbreviated as HKEOC, and the Hong Kong Financial Services Ordinances Corpus, abbreviated as HKFSOC). The two sub-corpora of ordinances were therefore combined and entitled 'the Hong Kong Ordinances Corpus (HKOC)', in which the local grammars of the four collocational frameworks were studied. Semantic roles such as 'the thing or person regulating something', 'the thing or person regulated', 'the regulating or regulated action', 'possibility', and 'permission' were identified in the occurrences of the collocational frameworks, and the local grammatical patterns of the collocational frameworks in HKOC, HKEOC, HKFSOC, and BNC were successfully generated and compared with each other (Warren & Leung, 2016). The study has established a connection between collocational framework and local grammar, and has demonstrated how collocational framework could be studied across registers and across genres.

The co-selection is not restricted to words, but is also found in clauses. The co-selection of clauses is termed by Hunston (2002: 75) as "clause collocation". For example, Hunston (2002) observed that clauses beginning with *I wonder* tend to co-occur with clauses beginning with *because*, with *because* meaning "the reason I mention this is …", as in "*and I wonder who the writer of this is because it quite*

probably or quite possible could have been Hansom much later on" (ibid.: 75). As indicated by Hunston (2002), clause collocations are difficult to find because the clause beginning with *I wonder* can be of any length. According to Sinclair & Mauranen (2006), words and phrases such as *I wonder* and *because* are called 'organisation-oriented elements', which help to manage the discourse, as opposed to 'message-oriented elements', which contribute to the development of the topic and expand the knowledge of the participants. Greaves & Warren (2008) adopted the term 'organisational framework' to emphasise the co-selection of clauses by the use of organisation-oriented elements, such as *either/or*, *both/and*, and *because/so*. The wide span of words allowed by ConcGram© enables the retrieval of organisational frameworks.

2.2 Approaches to grammar

This section reviews the concept of local grammar and relevant studies, together with some other approaches to grammar, which are generative grammar, systemic functional linguistics, construction grammar, grammar of speech, pattern grammar, and linear unit grammar. The purpose of the review is to compare these different approaches to grammar in terms of purpose, underlying beliefs, focuses, definition of 'grammar', coverage, dimension, and the role of corpora in order to identify the similarities and differences between local grammar and other approaches to grammar.

2.2.1 Discussion and comparison of grammatical approaches

The purpose of generative grammar is to separate the grammatical sequences from the ungrammatical ones and to study the structure of the grammatical ones (Chomsky, 1957). The purpose of systemic functional linguistics is to "account for how language is used" to "satisfy human needs" (Halliday & Matthiessen, 2004: xiii). Construction grammar aims to develop a grammatical description system in which all the language structures are represented equally, and to account for the

entirety of the language (Goldberg, 1995; Kay & Fillmore, 1999; Kay, 2002). The grammar of speech is developed with the aim to establish a grammatical approach to represent speech, which is different from written language (Brazil, 1995). The purpose of pattern grammar is to "describe patterns and their association with meaning" (Hunston & Francis, 2000: 3). The purpose of linear unit grammar is to develop a grammatical approach applicable to all or most of the language varieties (Sinclair & Mauranen, 2006). Local grammar aims to fully represent a small set of language, and in some studies to enable automatic language extraction (Gross, 1993; Barnbrook & Sinclair, 2001; Ahmad et al., 2006). It can be concluded that local grammar is the only grammatical system that aims at dealing with a small set of language, rather than the language as a whole.

The underlying belief of generative grammar is that any human being is born with a blueprint which enables them to produce an infinite number of utterances (Chomsky, 1965). It focuses on identifying "the underlying system of rules" (ibid.: 4), i.e. the blueprint in the brain. The underlying belief of systemic functional linguistics is that a language is "a system for making meanings" (Halliday, 1994: xvii), and the system has three metafunctions. Systemic functional linguistics focuses on the study of the functions of language in the meaning construal (Halliday & Matthiessen, 2004). Construction grammarians believe that constructions are "the basic units of language" (Goldberg, 1995: 4) and represent the "form-meaning correspondences" (ibid.: 1). Construction grammar focuses on the relationship between the form and the meaning (Goldberg, 1995). The underlying belief of the grammar of speech is speech, as an in-time uttered process, is better to be analysed increment by increment, rather than constituent within constituent (Brazil, 1995). The focus of the grammar of speech is on the accomplishment of communicative purpose by the increment-by-increment utterance. For pattern grammar, it is believed that patterns and lexis are mutually dependent, since that one lexical item occurs in a limited number of patterns, and one pattern occurs with a limited number of lexical items (Hunston & Francis, 2000). Pattern grammar focuses on the interaction between lexical items and the grammatical patterns they occur in, and the relationship between patterns and meanings. For linear unit grammar, most, if not all, of the language varieties can be

analysed in a linear dimension, with a focus on the relationship of boundaries between the increments (Sinclair & Mauranen, 2006). As for local grammar, the belief is that when dealing with a small set of language, adopting the local grammar approach can be more simple, more precise, and more useful (Hunston & Sinclair, 2000). The focus of local grammar is on discourse functions and meaning construal.

In addition to the purpose of and the belief about grammar, the concept of 'grammar' is defined differently in these grammatical approaches. For generative grammar, grammar is defined as "a device that generates all of the grammatical sequences of L and none of the ungrammatical ones" (Chomsky, 1957: 13). For systemic functional linguistics, grammar is defined as "a resource for making meaning" (Halliday & Matthiessen, 2004: 31), and more specifically, "a network of interrelated meaningful choices". With regard to construction grammar, grammar is the system that identifies how the form of the language is associated with meaning (Goldberg, 1995). As for the grammar of speech, grammar is regarded as a system by which the communicative purposes can be reached through speaking (Brazil, 1995). According to Hunston & Francis (2000), grammar is simply the generalisation of the observations about how the language is used. According to Sinclair & Mauranen (2006), grammar is a system by the analysis of which text or language can be related to meaning. Regarding local grammar, the notion of 'grammar' can be understood as a system that generalizes the features of a small set of language.

The coverage of these grammatical approaches also varies. Generative grammar covers the fields of syntax, phonology and semantics (Chomsky, 1965). Systemic functional linguistics covers syntax, morphology, and lexis (Matthiessen, 1997; Halliday & Matthiessen, 2004), but also involves associated fields of phonology, semantics, and context (Halliday & Matthiessen, 2004). Construction grammar mainly covers syntax, lexis, semantics and pragmatics (Fillmore, Kay & O'Connor, 1988), but pragmatics can be combined into semantics in the broad sense. The grammar of speech covers syntax, semantics and intonation, which belongs to the field of phonology (Brazil, 1995). Local grammar and pattern grammar study lexis, syntax and semantics (Hunston & Francis, 2000), with the same coverage as

construction grammar. Linear unit grammar covers syntax and semantics (Sinclair & Mauranen, 2006). It can be observed that syntax and semantics are covered by all of these grammatical approaches. Phonology is covered by generative grammar and the grammar of speech, and is also involved in systemic functional linguistics. Lexis is included in systemic functional linguistics, construction grammar, pattern grammar, and local grammar.

Corpora are playing a role in the majority of the grammatical approaches under discussion, with exceptions of generative grammar and most of the construction grammar studies. Concerning the use of corpora, all the grammatical approaches except pattern grammar adopt a corpus-based approach with the data selected from the corpora used as examples. Pattern grammar and local grammar are the only exceptions which adopt a corpus-driven approach. A corpus-driven approach, defined by Tognini-Bonelli (2001: 11) refers to the use of a corpus "beyond the selection of examples to support or quantify a pre-existing theoretical category", and "the theoretical statement can only be formulated in the presence of corpus evidence and is fully accountable to it"; that is, any conclusions or claims are made exclusively on the basis of corpus observations.

A hierarchical dimension is adopted in generative grammar, systemic functional linguistics, and construction grammar, while a linear dimension is adopted in the grammar of speech, pattern grammar, linear unit grammar, and local grammar. Systemic functional linguistics, however, tries to weaken the importance of the hierarchical structure of the language, but stresses on the functions of the language units (Halliday & Matthiessen, 2004).

The findings of the comparison across the seven approaches to grammar in the seven aspects are summarised below.

	Generative grammar	Systemic functional linguistics	Construction grammar	Grammar of speech	Pattern grammar	Linear Unit Grammar	Local grammar
Purpose	to separate the grammatical sequences from the ungrammatical ones and to study the grammatical ones	to account for how language is used to satisfy human needs	to develop a system in which all the language structures are represented equally	to establish a grammatical approach to represent speech	to describe the patterns and their association with meaning	to develop a grammatical approach applicable to all or most of the language varieties	to fully represent a small set of language, and in some studies to enable automatic language extraction
Underlying beliefs	innate linguistic competence	language is a system for making meanings, and the system has three metafunctions	constructions are the basic units of language and represent the form-meaning correspondences	speech is better to be analysed in a linear dimension	patterns and lexis are mutually dependent	most language varieties can be analysed in a linear dimension	grammatical system devised for a small set of language has its advantages
Focuses	identifying the underlying system of rules	the study of the functions of language in the meaning construal	the relationship between form and meaning	the accomplishment of communicative purpose by the increment-by-increment	the interaction between lexical items and the grammatical patterns, and the relationship	the relationship of boundaries between the increments	functions and meaning construal

				utterance	between patterns and meanings		
Definition of 'grammar'	a device that generates all of the grammatical sequences of L and none of the ungrammatical ones	a resource for making meaning, and more specifically, a network of interrelated meaningful choices	the system that identifies how the form of the language is associated with meaning	a system by which the communicative purposes can be reached through speaking	the generalisation of observations about how the language is used	a system by the analysis of which text or language can be related to meaning	a system that generalizes the features of a small set of language
Coverage	syntax, phonology, and semantics	syntax, morphology, lexis, phonology, semantics, and context	syntax, lexis, semantics, and phonology	syntax, semantics, and phonology	lexis, syntax and semantics	syntax and semantics	lexis, syntax and semantics
Dimension	hierarchical	hierarchical	hierarchical	linear	linear	linear	linear
Role of corpora	not used	corpus-based	not used in most studies	corpus-based	corpus-driven	corpus-based	corpus-driven

2.2.2 Local grammar

The studies of phraseology indicate that "clear grammatical relationships" exist in word co-selection; however, phraseology "is not a fragment of ordinary English grammar", but deserves "its own, unique local grammar" (Sinclair, 2010: 41). Sinclair (2010) suggests that Gross' (1993) conception of 'local grammar' be adopted in the description of phraseology. This section reviews the concept of local grammar and relevant studies.

It is noticed that in the study of collocations and phrases, there are often sets of similar forms that are not covered by "formal rules of either the phrase structure or transformational type" (Gross, 1993: 26). Local grammar illustrates how these similar forms can be represented. Gross (1993) introduced finite state automata and permutation rules to describe local grammars, with finite state automata referring to graphs representing the formation elements of the utterances in a linear order and permutations rules referring to transformation rules that introduce the relationship of equivalence to modify the finite automata to avoid redundancy.

Gross (1993) argued that it takes three steps to generate local grammars: to divide the utterances into composing elements and represent them in a linear order, i.e. in finite state automata; to conduct constituent analysis on these elements; and to follow permutation rules to identify the equivalent elements of the utterances and rearrange the finite-state graphs. Local grammars of synonymous phrases like "*lost his cool*", "*lost his temper*", "*blew a fuse*" (Gross, 1993: 29), adverbial phrases associated with dates, and expressions of precise dates were analysed in terms of local grammar.

Gross (1993) identified eight patterns in the analysis of the synonymous phrases. The patterns are *be + out of + temper*; *be + in + a + rage*; *get/ fly + into + a + rage*; *control/ keep/ hold* + possessive adjective + (proverbial) + *temper*; *lost* + possessive adjective + (*proverbial*) + *temper*; *blow* + possessive adjective + *cool/ cork/ stack/ top*;

blow + a + fuse/ gasket; and *flip + the + lid + (off)*. Seven patterns were identified in the analysis of adverbial phrases corresponding to dates. Rather than using the word 'decade', Gross (1993) listed the tens from twenties/ 20s to nineties/ 90s in the graph. The figures can be both alphabetical (e.g. *thirties*) and numerical (e.g. *30s*). For the format of the paper, the word 'decade' was adopted to refer to the tens listed. The permutation rule that '*in the early/ late sixties*' equals '*early/ late in the sixties*' was identified. Eleven patterns were identified in the expressions of precise dates (Gross, 1993). Permutation rules of *a + day = day + month + date in cardinal number + year*, e.g. "*a Monday* and *Monday June 6, 1969*" (ibid.: 36), and *on + the + date in ordinal number + of + month*, e.g. "*on the 6th of May = on May 6*" (ibid.: 36), were identified.

The above examples show that Gross' (1993) local grammar focuses on the formation (i.e. the forms) and transformation (i.e. the relationship of equivalence) of the composing elements of utterances expressing similar meaning, rather than on the functional or semantic roles of these elements. In some other local grammar studies (e.g. Barnbrook & Sinclair, 2001; Hunston & Sinclair, 2000), the focus has shifted to the functional or semantic roles of the composing elements. The study of the functions of the elements is regarded compulsory in these studies of local grammar.

Compared with general grammar, i.e. the grammar developed for the language as a whole, local grammar is focused and specialised in the structures and features of the small set. It sets out to describe only a small set of a language, which can be "one set of meanings" (Hunston, 2002: 90) or a "subset of normal language, the sub-language" (Barnbrook, 2002: 94). It can be expected that the small set of a language does not use all the grammatical structures of the language and does not have all the linguistic features (Barnbrook & Sinclair, 2001).

Hunston & Sinclair (2000) argued that in some cases, analysis using local grammars can be more simple, by using a limited number of terms; more precise, since each local grammar could be stated in its own terms; and more useful, due to its relation with discourse function. Similarly, Barnbrook & Sinclair (2001) argued that a local

grammar will outperform a general grammar, because that general grammar is structurally oriented, and is not able to work out the functions, while local grammar "stays very close to the functions of the restricted language" (ibid.: 241). Hunston (2002) further illustrated that "the elements of the local grammar are more useful than elements of a general grammar" (ibid.: 157). For example, when analysing the sentence of definition "An albatross is a very large white sea bird" (*Collins Cobuild Student's Dictionary*: 14, cited in Barnbrook & Sinclair, 2001: 247), it is more useful to know that albatross is the headword than to know that it is the subject.

Rather than reducing the rules of the general grammar to avoid non-specialised sentences being produced, local grammar devises a unique grammar and "relies very little on received categories" (Barnbrook & Sinclair, 2001: 241) in general grammar, e.g. the categories of subject, object, etc. Another aim of devising local grammars was to enable computer programs to identify the elements in the local grammars automatically (Hunston, 2002).

Although local grammar outperforms general grammar from various aspects, not many studies have been conducted on local grammar since it was proposed almost twenty years ago, probably because of the long-existing ambition in the field to cover the language as a whole. It is observed that these studies of local grammar fall into two types: the studies focusing on the forms of the language and the studies focusing on the functions and meaning construal of the language. These studies are reviewed in sections 2.2.2.1 and 2.2.2.2 respectively.

2.2.2.1 Local grammars with a focus on the forms of the language

In some studies (e.g. Baptista, 1998; Ahmad et al., 2005; Ahmad et al., 2006) following the tradition of Gross (1993), the focus of local grammar is on the forms of the language. Local grammar is regarded as an approach to language extraction. The significance of the identification of the local grammar is not on the local grammar

itself, but on the further analysis enabled by searching for the patterns of local grammar in the wider context.

Nam & Choi (1997) used a local grammar-based approach in the recognition of Korean proper names, with the aim to develop a system to detect proper names and to compile an electronic lexicon of the proper names. The proper names studied by Nam & Choi (1997) have two restrictions: one is that they are not included in the dictionary of common nouns by Nam (1994); the other is that they can be the answers to the interrogative pronoun 'who' (Nam & Choi, 1997). It can be inferred from the second restriction that only people's names were studied in the paper, rather than the names of countries, locations, mountains, etc. Nam & Choi (1997) argued that since the focus of their study is on the compilation of a dictionary of proper names rather than the nature of proper names, a precise definition is not given to the concept of proper names. The restrictions at least give the readers a rough idea about the nouns that were studied.

Nam & Choi (1997) found that different from English and French, the proper names in Korean do not use initial upper case. It makes the recognition of proper names in Korean more difficult. They identify five patterns where proper names (PNs) are expected to occur, namely type 1: "<PN-(Postposition + E)>", with the same position as common nouns; type 2: "<PN (Spec + E) Professional Title-(Postposition +E)>", with professional titles; type 3: "<PN-(Gen+E) Family Relation-(Postposition+E)>", with family relations; type 4: "<PN Vocative Term-(Postposition+E)>", with vocative terms; and type 5: "<PN Incomplete Noun-(Postposition+E)>", with incomplete nouns (ibid.: 275-280). Detailed local grammar of each type is studied, with finite-state automata identified. Family name and given name are specified in the automata. The local grammars of these five types were combined to form the local grammar of Korean proper name expression. Although the complete list of the nouns associated with proper nouns was not identified (e.g. professional titles, family relations), Nam & Choi (1997) believed that the list can be exhausted in further studies.

Baptista (1998) adopted a local grammar approach to extract anthroponyms in European Portuguese for the development of machine-readable dictionaries, arguing that machine-readable dictionaries play an important role in identifying every word of a text, which is an essential procedure to conduct any automatic language processing. A small corpus of 90,534 (13,417 different) tokens was compiled from the online edition of Portuguese daily newspaper *PÚBLICO*. It was studied by using "the machine-readable dictionary of Portuguese simple words of the DIGRAMA system (Eleutério et al., 1995)" (Baptista, 1998: 24) with about 100,000 lexical entries and 1,250,000 inflected forms. Proper nouns were not included in the dictionary. After comparison, 1,532 tokens (about 11.4%) of the corpus of newspaper were identified as "unknown tokens" (ibid.: 24), which were not recognized by the entries and inflected forms of the dictionary. About 200 (13%) of the unknown tokens are anthroponyms that can be recognized by a small machine-readable dictionary of about 3,000 proper nouns (Baptista, 1998).

Baptista (1998: 30) found that proper names are composed of an invariable sequence of characters and a variable one. For example, in the case of "Carl" and "Carlos", 'Carl' is an invariable sequence of characters and 'os' is a variable sequence of characters. Codes were added to designate the variable sequences of characters that generate inflections. Semantic features, including Hum (=human), gn (=given name) and sn (=surname), were also marked after the codes. A set of local grammars was developed to represent the anthroponyms, with the finite state automaton "NprNpr.graph" as the dominant pattern. Other auxiliary patterns include "Maiusc.graph" for abbreviated nouns, "AbbrevTitles.graph" for abbreviated titles (ibid.: 30-31). The patterns can be AbbrevTitles + <N+Hum+sn>, or <N+Hum+gn> + Maiusc. + <N+Hum+gn>, etc. (Baptista, 1998: 31). Baptista (1998) suggested that the local grammar of anthroponyms needs to be further improved, as it does not distinguish abbreviated given names from surnames, and gender-number values of the names.

Baptista, Batista & Mamede (2006) extended Baptista (1998) by utilizing the local grammar approach in compiling an electronic dictionary of anthroponyms of European Portuguese (DicPRO). Experiments were conducted to examine the usefulness of the DicPRO resource. The dictionary was applied to a corpus of broadcast news speech recognition system compiled by Caseiro and Trancoso (2002). The corpus was divided into a training corpus of 498,000 words and an evaluation corpus of 49,306 words. To evaluate the capitalization of anthroponyms, the anthroponyms in the evaluation corpus were distinguished from other proper names. It was found that 1,101 of the 3,001 proper names are anthroponyms. A probabilistic dictionary was produced from the training corpus to examine the probability of the words to occur in upper case or in lower case (Baptista et al., 2006). The words occur more frequently in upper case are labeled as CAP, and those occur more frequently in lower case are as MIN. It was identified that 15% of the words in the probabilistic dictionary are tagged with CAP. The information of CAP or MIN was also included in the DicPRO dictionaries. Baptista et al. (2006) followed the set of local grammars by Baptista (1998), which combined both "positional and lexical information" (ibid.: 26). Two finite-state automata were given as examples. The set of local grammars was used to search the corpus, with a satisfying retrieval rate of 75% to 87%.

Ahmad et al. (2005) adopted a local grammar approach to extract sentiment-bearing texts from large volumes of news streams by studying the local grammar of *percent* to identify the sentiments of news stories, i.e. good news or bad news. They argued that the neighbourhood of the specialist words typically used in financial news announcements carries sentiment information, and the study of the local grammar of the specialist words can enable the retrieval of sentiment bearing language.

Based on this argument, the Reuters Corpus Volume 1 (RCV1), which contains 181 million tokens in 806,791 financial news texts, was compared with the reference corpus of general English, the British National Corpus (BNC) with 100 million tokens in 4124 texts to extract the key words from the corpus of financial news texts (Ahmad et al., 2005). It was observed that *percent* is the word with the highest weirdness or

keyness (157.84), followed by *shares* with the weirdness of 19.51 and *bank* with the weirdness of 10.99 (Ahmad et al., 2005). *Percent*, the word with the highest weirdness, was selected for study. The key collocates of *percent* were extracted, and the most frequent ones are *up*, *rose*, *rise*, *down* and *fell*, which convey the meaning of movement, and bear sentiments according to Ahmad et al. (2005). The local grammar of *percent* in association with its key collocates was generated in the form of a finite state automaton for retrieving sentiment-bearing sentences. For example, the local grammar of *percent* when it occurs with *down* is '*down* + (*more than/ nearly/ to/ from/ over/ about*) + numeral cardinal + *percent*'. Ahmad et al. (2005) argued that the local grammar of *percent* and its key collocates enables the identification of sentiments from a large amount of financial news announcements.

Ahmad et al. (2005) is significant in that it integrates finance, computing and linguistics and enables the extraction of some expressions of sentiment. Ahmad et al. (2006) further developed the study in 2005 by suggesting that the use of local grammar in data extraction was applicable not only to English, but also to other languages, with Arabic and Chinese as examples, by adopting the same method to study Chinese and Arabic financial news texts. The findings of Ahmad et al. (2005; 2006) support both the feasibility and value of using local grammar to conduct sentiment analysis in financial news streams.

2.2.2.2 Local grammars with focuses on the functions and meaning construal

Different from the studies discussed in the last section, some studies (e.g. Barnbrook & Sinclair, 2001; Hunston & Sinclair, 2000; Allen, 2006) have shifted the focus of local grammar from forms (Gross, 1993) to the functions and meaning construal of the language. These studies seek to explore how the meanings are construed by the use of language and how the language functions in the meaning construal.

Barnbrook & Sinclair (2001) studied the local grammar of definition by analyzing and parsing a corpus of definition sentences containing 434,220 words extracted from the *Collins Cobuild Student's Dictionary* (CCSD). The analysis of the local grammar focused on the function of the definition sentence to explain the meaning of the definiendum. Rather than using traditional grammatical terms like 'subject' and 'object', terms like 'left-part', 'right-part', 'hinge', and 'matching' were introduced to explain the relationship between the definiendum and the definiens. Each definition was divided into two parts, namely a left-part, which usually contains the definiendum, and a right-part, which usually contains the definiens. When the headword occurs towards the end of a sentence, the situation was considered to be reversed. This situation was found to be rare, only 1.5% (472 out of 31,407). The two parts are connected by a hinge, which specifies the relationship between the left-part and the right-part. The two parts are usually in the relations of equivalence (the two parts mean the same thing) or explicitness (the right-part is more explicit than the left-part).

Parsing was conducted in three stages (Barnbrook & Sinclair, 2001), namely to identify the definition types and the categorizing criteria; to divide the definition sentence into several major functional components; and to conduct further analysis when it is necessary, and output the analysis in the required format. The information of the definition text, the grammar note, the sense number and the inflected forms was extracted from the dictionary and converted into a simple form using a set of programmes. Then the definitions were divided into four groups and seventeen types, according to the organisational patterns of the sentences. Only six out of the 31,407 definitions failed to be classified into these four groups.

The study (Barnbrook & Sinclair, 2001) found Group A to cover 55.94% of the definitions, with the characteristic that each definition forms a statement of identity between the definiendum and definiens, e.g. "An **issue** of a magazine or newspaper is a particular edition of it" (*CCSD*: 301, cited by Barnbrook & Sinclair, 2001: 255). Group B covers 35.24% of the definitions, with a pattern in which conditional clause is used to define the headword, which is usually a verb, e.g. "If some is **run-down**, they

are tired or ill" (*CCSD*: 491, cited by Barnbrook & Sinclair, 2001: 257). Group C, which accounts for 8.75% of the definitions, consists of projections describing "the linguistic purposes and situations" with the headwords (Barnbrook & Sinclair, 2001: 257), e.g. "You can also say you **admire** something when you look with pleasure at it" (*CCSD*: 8, cited by Barnbrook & Sinclair, 2001: 257). Group D, containing only 17 sentences, uses "a preliminary phrase beginning with *in*" (Barnbrook & Sinclair, 2001: 258) to introduce the headword, e.g. "In **humid** places, the weather is hot and damp (*CCSD*: 272, cited by Barnbrook & Sinclair, 2001: 258).

An individual parsing software program was developed for each of the seventeen sentence types (Barnbrook & Sinclair, 2001). The output of the parsing follows the same form, consisting of the headword, the sense number where appropriate, the grammar code, and the definition with structural symbols assigned to segments of text sequentially.

Sinclair (2010) extended their study by analysing the definiendum in a dictionary as a lexical item, and argued that "any configuration of text which has a distinct sense" (ibid.: 37) can be analysed as a lexical item.

The concept of local grammar proposed by Gross (1993) was adopted by Sinclair (2010) to illustrate the organisation of the components of a lexical item. Sinclair (2010) argued that each lexical item containing variables "has its own, unique local grammar" (ibid.: 41), and local grammar is not necessary for "simple lexical items - single words [of the definienda] - and fixed idioms [of the definienda]" (ibid.: 41) since they do not have variations. The local grammar of the lexical item with *sever* as the core was analysed as an example. Its subsense of "put an end to" (ibid.: 38) was observed much more frequently than its core sense "divide by cutting or slicing" (ibid.: 38). When expressing the sense of 'put an end to', *sever* is the core. It functions together with its collocation, colligation, semantic preference and semantic prosody (Sinclair, 2010).

The local grammar of the word *sever* was categorized into three groups after both structural analysis and semantic interpretation, namely specified, prespecified, and inferrable (Sinclair, 2010). The first group was termed as 'specified', since the relationship that is severed is specified by a prepositional phrase (Sinclair, 2010). The pattern is predicator (*sever*) + pre-deictic ([*all*]) + deictic ([POSSADJ]) + head (SEMPREF) + preposition (*with/ to/ between/ from*), e.g. *sever his relationship with the company*. The second group was termed as 'prespecified', since the relationship that is severed is prespecified by an alternative structure rather than the prepositional phrase in group one (Sinclair, 2010). The pattern is predicator (*sever*) + pre-deictic ([*all*]) + deictic ([POSSADJ]) + head (SEMPREF), e.g. "*their only hope is to sever such links*" (ibid.: 42). The prespecification is realized by nominalisation, cohesion and words indicating relation. The prespecification was labeled as 'paraphrase'. The third group was termed as 'inferrable', since the relationship that is severed is not specified but can be inferred (Sinclair, 2010). It often occurs in headlines and shares the same pattern with the second group, but paraphrase is not involved, e.g. "*Gary's in a hurry to sever Links*" (ibid.: 43). There are also a few instances where the relationship that is severed is not specified deliberately, e.g. "*This is the good we dare not sever*" (ibid.: 43). They were labeled as 'unspecified' (Sinclair, 2010).

Sinclair (2010) argued that multi-word lexical items can be "identified both by its conformity to its local grammar and the meaning-shift that it induces in its components" (ibid.: 45). By conformity, it means that configurations which conform to the local grammar are very likely to have this sense, and configurations which are substantially different from the local grammar are unlikely to have this sense. By meaning-shift, the meanings of the lexical components of the lexical item shift from their meanings when used elsewhere to have a meaning closely related to the semantic prosody of the lexical item (Sinclair, 2010).

Hunston (1999) examined the local grammar of the expressions of sameness and difference. The words expressing the meanings were first identified, followed by the patterns. Functionally-oriented terms such as 'comparer', 'item 1', and 'item 2' were

used to describe the items of the local grammar. The patterns include comparer + comparison + item 1, 2, e.g. "*There are people who equate those two terrible video tapes*" (ibid.: 2); comparison + item 1 + item 2, e.g. "*It's difficult to differentiate between chemical weapons and chemicals for peaceful use*"; and item 1 + comparison + item 2, e.g. "*Make your advertisement stand out from all the others by having it printed in bold type...*" (ibid.: 3).

Hunston & Sinclair (2000) studied the local grammar of evaluation by specifying the limited patterns that are typically used to evaluate and identifying evaluative adjectives from these patterns and their co-occurring adjectives to "test the applicability of a local grammar to the concept of evaluation" (ibid.: 100). Six patterns were identified, with specific functional terms including 'evaluative category', 'thing evaluated', 'evaluation carrier', 'evaluator', 'evaluating response', and 'evaluating context' used in the identification to emphasize the role of each part in the patterns of evaluation, rather than the traditional grammatical function in the general language. The term 'hinge' proposed by Barnbrook & Sinclair (1995) was also adopted to refer to the connection between the evaluated thing and the evaluative category. Six local grammatical patterns with ten sub-patterns were identified, e.g. Pattern 1: *IT* (introductory / anticipatory) + LINK VERB + ADJECTIVE GROUP (evaluative category) + CLAUSE (thing evaluated), as in "*It was certain that he was much to blame*" (Hunston & Sinclair, 2000: 85).

The analysis indicated that it is possible to use these patterns to identify evaluative adjectives. After the discussion of evaluative adjectives, evaluative noun was also analysed with an example of thirty concordance lines with *nuisance* as the node word. Five parsing patterns of evaluative nouns were developed. The study indicated that it is possible to specify evaluative patterns and identify the evaluative adjectives that frequently occur in these patterns, with the participating roles of each part of the pattern identified automatically. It can be inferred that "the construction of a local grammar of evaluation seems a very feasible undertaking" (ibid.: 101).

The local grammar of evaluation (Hunston & Sinclair, 2000) is closely associated with the pattern grammar proposed by Hunston & Francis (2000). The patterns are composed of elements marked with the same grammatical labels as those in pattern grammar, such as 'link verb', 'adjective group'. Then these elements were mapped with evaluative roles, such as 'evaluative category', 'thing evaluated', to construct local grammar.

Bednarek (2007) adopted the research approach of Hunston & Sinclair (2000) to compare the differences in evaluation between British 'popular' newspapers and 'quality' newspapers by the study of evaluative adjective patterns. A corpus of 70,300 words, consisting of 100 pieces of news with the same ten topics chosen from ten British newspapers, was compiled for the study. Concordance lines containing link verbs, namely *be*, *look*, *appear*, *seem*, *remain*, *leave*, and general nouns, namely *thing*, *point*, *kind* and *sort*, were examined.

The analysis indicated that there is no significant difference in terms of frequency of patterns in the local grammar of evaluation between popular newspaper and quality newspaper (Bednarek, 2007). However quality newspapers tend to use more evaluative adjective patterns that involve evaluative category, whereas popular newspapers use slightly more evaluative adjective patterns that involve evaluating response. This finding indicated that popular newspapers prefer to use evaluation for "reporting emotional or mental states" (ibid.: 15) or "affect proper" (ibid.: 12), whereas quality newspapers prefer to use evaluation for evaluation proper. Findings also indicated that popular newspapers tend to "use more intense and metaphorical adjectives" than quality newspapers but the formality of the evaluative adjectives cannot be concluded because of "the small amount of data available" (ibid.: 15).

Allen (2006) studied the local grammar of cause and effect using the Halmstad Biomedical Corpus (HBC), a 1.93-million-word corpus composed of 589 biomedical research articles selected from 2 general journals and 64 specialist periodicals published since 1997. Allen (2006) identified manually the lexical items indicating

cause and effect by testing whether these lexical items can be substituted by periphrastic verbs identified by semantic intuition, such as *cause*, *affect*, and *make*. 208 lexical items indicating causation were identified from the HBC. The majority of the lexical items (about 140 out of 208) are monotransitive verbs, and some others are nominal, verbal, delexical and adjectival lexical items. The study found that the 208 lexical items occur in 103 patterns, with a number of which representing open choices rather than "genuine patterns of co-selection" (ibid.: 89). The patterns were categorized into verbal patterns, delexical patterns, nominal patterns and adjectival patterns according to the cores of the lexical items.

After the study of patterns, the elements were classified into three major functional systems, namely cause, hinge and effect. Hinge refers to the link between cause and effect nominal groups. These functional systems were further categorised into several semantic categories. The semantic categories under cause system include process, lifestyle, disease, and biochemical. The semantic categories under hinge system include productive, parametric, relational, and inferential. The effect system involves the semantic categories including product [symptom], product [bio_function], and product [disease]. Then the "functional / semantic labels" were mapped onto the patterns of cause and effect (Allen, 2006: 145).

Five functional sub-types of causation were classified, based primarily on the analysis of the verbal groups linking the cause and effect, and also on a classification of the resultative effect (Allen, 2006). The five functional sub-types are productive causation, e.g. "*These internal stresses and strains would result in structural damages due to micro-cracking and interfacial debonding*" (ibid.: 186), parametric causation, e.g. "*Postoperative AFIB increases the duration of hospitalization*" (ibid.: 190), relational causation, e.g "*Food allergy is yet another common cause of acute, recurrent in childhood*" (ibid.: 192), inferential causation, e.g. "*Local tumour recurrence was associated with a two-to-three-fold increase in the rate of metastasis*" (ibid.: 199), and existential causation, e.g. "*There was no correlation between the histological type of AC and the presence of concomitant squamous cell lesions*" (ibid.: 203).

In conclusion, the two types of local grammar studies are similar in that they both deal with a small set of language, rather than the language as a whole; they conduct the grammatical analysis in a linear dimension; and the corpus-driven approach is adopted in both types of studies. They are different from each other in the aspects of purpose, focus, and coverage. The first type of local grammar studies identifies the patterns of the language that share similar forms with the aim to develop computational programs for language extraction, while the second type aims to make a comprehensive description of the language that serves a certain function. Different purposes of the studies have led to different focuses and different coverage. The first type, as it is discussed, focuses on the forms of the language, so that only lexis and syntax are examined in the grammatical analysis. The second type focuses on the functions and meaning construal of the language, and the inter-relation between syntactic patterns and meanings, so that semantics is regarded as a compulsory component of local grammar in this type of studies, together with lexis and syntax.

A few studies are similar to local grammar from various aspects, represented by the studies of 'semantic sequences' (see, for example, Hunston, 2008; Bondi & Diani, 2015) and grammar of the expressions of pain (Halliday, 1998). Hunston (2008) proposed the notion of 'semantic sequences' to refer to "recurring sequences of words and phrases that may be very diverse in form and which are therefore more usefully characterised as sequences of meaning elements rather than as formal sequences" (ibid.: 271) and argued that semantic sequences, which represent "what is often said", "are most useful when linked to epistemology in disciplinary discourse" (ibid.: 290). Hunston's (2008) notion of 'semantic sequence' is very similar to local grammar in that the mapping of "functional / semantic labels" (Allen, 2006: 145) to grammar patterns can also be regarded as the generation of 'semantic sequence'. The difference is that semantic sequence focuses more on "semantic similarity", allowing "formal variation" within the same semantic sequence (Hunston, 2008: 292).

Bondi & Seidenari (2012) and Bondi & Diani (2015) adopted the concept of 'semantic sequence' in the study of evaluative phraseologies in Italian and in English. In Bondi & Seidenari (2012), NEWS blog corpus chosen from the BLOG corpus was compared with reference corpora the BNC and the CORIS/CODIS to obtain keyword lists, with the focus on grammar keywords or 'salient grammatical words' (SGW) (Gledhill, 2000) associated with evaluative meaning. Markers of subjectivity, namely *I*, *my*, *I'm*, and *am* in English and *mi*, *io*, and *me* in Italian, were observed at the very top of the keyword lists in both sub-corpora. Collocational profiles and grammar patterns of the seven words were studied (Bondi & Seidenari, 2012). Bondi & Seidenari (2012) tried to map grammar pattern with semantic sequences and identified that each sequence has its preferred grammar patterns, but with a rather high degree of variation.

Bondi & Diani (2015) extended the study of evaluative phraseologies by studying the collocates, grammatical patterns, and semantic sequences of subjectivity markers in the whole BLOG corpus, with the focus on the similarities and differences in the language of evaluation between Italian and English. Comparison was conducted in three pairs: EN *I* and IT *io*/*mi*; EN *me* and IT *me*; and EN *my* and IT *mio*/*mia* at two levels: lexico-grammatical level and semantic sequence level (Bondi & Diani, 2015). In the study at lexico-grammatical level, collocation and colligation of the node were investigated. In the study of semantic sequences, Bondi & Diani (2015) classified the semantic sequences of the evaluative language into two major types: prototypical semantic sequences and argumentative semantic sequences, with prototypical semantic sequences dominating the frequency in both English (90.34%) and Italian (82.17%). The grammatical patterns and semantic sequences were linked together to illustrate the language of evaluation. The analysis revealed high similarity in the evaluative language in Italian and in English. Bondi & Diani (2015) took a further step, compared to Bondi & Seidenari (2012), by conducting a more detailed mapping of the grammar patterns on semantic sequences, and therefore established a closer connection between the two concepts, the combination of which is believed to be useful in the analysis of "specific areas of meaning" (Bondi & Diani, 2015: 150) and phraseological study.

The studies of 'semantic sequences' are similar to local grammar studies in at least three aspects: they deal with a specific area of meaning rather than the language as a whole; the core items examined in the studies, namely grammatical patterns and semantic sequences, are also the essence of local grammar; and the combination of the two concepts, especially in Bondi & Diani (2015), is also of high similarity with that in local grammar studies.

The difference is that studies of semantic sequences focus more on the sequence of the meaning elements, so that the words classified in each meaning element may not belong to the same syntactic element. For example, "I am wild about cabbage" was classified into the semantic sequence of 'evaluation + entity evaluated', with *I am wild about* as one meaning element and *cabbage* as the other. While syntactically, its grammar pattern was represented as "link-v adj", with *am* as one syntactic element and *wild about cabbage* as the other (Bondi & Diani, 2015: 133). In local grammar, it may be analysed as n (evaluator, *I*) + link-v (hinge, *am*) + adj (evaluating response, *wild*) + prep (hinge, *about*) + n (thing evaluated, *cabbage*), indicating a one-to-one correspondence between syntactic element and meaning element.

Halliday (1998) is another study that is similar to local grammar. The first COBUILD written corpus containing 18 million words was studied to identify the frequencies of the key lexical items with the cores of *pain*, *hurt*, *ache* and *sore* and their derivations. Their collocations were categorized into four groups: parts of body, kinds of pain, degrees of pain, and cause of pain. The study of the corpus of written data provided quantitative evidence of the frequencies and collocations of the various expressions of pain (Halliday, 1998). Then a transcript of a consultation among a doctor, a young patient, and the patient's mother was studied to examine the expressions of pain in daily life, rather than in narrative fiction (Halliday, 1998). The lexical items expressing pains and their collocates were identified. Based on the study of lexical items and collocations in the spoken text, the construal of pain in the 24 pain-expressing clauses of the text was studied. A set of paradigms was developed based on the data of the COBUILD corpus to "examine expressions of pain from the standpoint of transitivity"

(Halliday, 1998: 15). The paradigms specified the pattern of pain expression, the type of process, structural functions, and agnate expression. Twenty-four patterns of pain expressions were included in the paradigms and analysed from functional, grammatical and semantic aspects. The study of the grammar of pain expressions can be regarded as a process of understanding how "experience is transformed into meaning" (Halliday, 1998: 30) through language.

Similar to the studies of local grammars, the study of the grammar of pain focuses on one aspect of the language, which is the pain expression in this case. It also generalizes patterns of expressions, with focuses on semantics and functions. Different from the studies of local grammars, Halliday's (1998) study of the grammar of pain used corpus data as reference and the patterns of pain were generated from a dialogue transcript, so that the frequencies of the patterns were not examined. In addition, syntax was not included in Halliday (1998). The semantic and functional patterns were therefore not studied at the lexico-grammatical level.

2.2.3 Conclusion

In conclusion, these approaches to grammar have one common feature; that is, they all include syntax and semantics in the grammatical analysis. Generative grammar, systemic functional linguistics, and the grammar of speech are similar in that they all include phonological study in their grammatical analysis, while systemic functional linguistics, the grammar of speech, pattern grammar, and local grammar are the four approaches that emphasize that lexis and grammar are indispensible. Systemic functional linguistics, construction grammar, the grammar of speech, pattern grammar, and local grammar share the similarities of focusing on the relationship between language and meaning construal and analysing the elements of the texts from a semantic aspect to identify how they function in making the meaning. Generative grammar, systemic functional linguistics, and construction grammar analyse the texts

in a hierarchical dimension, while the grammar of speech, pattern grammar, linear unit grammar, and local grammar adopt linear dimension in the grammatical analysis.

2.3 Professional communication, corporate communication, and corporate annual reports

This section reviews professional communication research and corporate communication, with a focus on corporate annual reports (CARs), in order to better understand the genre of corporate annual reports in professional communication.

2.3.1 Professional communication and corporate communication

Professional communication, an overarching term to refer to "the use of all forms of semiotic resources (linguistics as well as multimodal) in and for academic as well as professional contexts, both spoken and written", often includes management communication, corporate communication, organisational, and institutional communication (Bhatia & Bremner, 2014: xvi).

As a major type of professional communication, corporate communication is concerned with "the set of activities involved in managing and orchestrating all internal and external communications aimed at creating favorable starting points with stakeholders on which the company depends" (Riel & Fombrun, 2007: 25). It is an integration of external and internal communication activities in marketing communications, employee communications, investor communications, customer communications, and government communications, etc to seek for the most effective and efficient form of communication (Goodman, 2004; Torp, 2009; Cornelissen, 2011; Breeze, 2013; de Groot, 2014; Frandsen & Johansen, 2014). Corporate communication has become increasingly important in recent years with the stronger stakeholder demands, an increase in media presence, increasing dependence on information, and

internationalization (Goodman, 2004; de Groot, 2014). A large amount of money has been spent on corporate communication, especially in the large corporations. The spending on corporate communication in the Fortune 500 companies in the year 2000 ranged from $285,000 to $100 million, with the mean being $21.6 million (Goodman, 2004).

The purposes, forms and language of corporate communication vary with different stakeholders, including clients, investors, suppliers, competitors, media, local community, and employees (Cornelissen, 2011; Frandsen & Johansen, 2014). For example, investors and shareholders would be interested in financial information and the organization's strategy and operations, while existing and potential customers would be interested in information about products and services in the forms of advertising, sales promotions, and in-store communications (Cornelissen, 2011). Among all these kinds of relationship that corporate communication tries to enhance, investor relations is "a central function of corporate communication" (Goodman, 2004: 211). Three communication vehicles with various forms for investor relations are identified:

> 1) Printed matter: company prospectus, annual reports, quarterly reports, 10K and 10Q reports, press releases, fact books, corporate background or overview statements, Securities Exchange Commission filings, the proxy statement.

> 2) Oral presentations: annual meetings, briefings, conference calls, telephone contracts, audio tape reports.

> 3) Electronic means: email, broadcast fax, videotape reports, online information services and databases, the internet.

(Goodman, 2004: 211)

The messages that corporations choose to communicate with internal and external audiences are considered to be corporate discourse, a developing set of social practices including a large variety of texts and genres (Breeze, 2013). Studies have been conducted to explore the features of the various genres. For example, Henry (2008) studied the genre of earnings press releases, which are issued several weeks after the end of each quarter by the corporations to announce their results, with the purpose to "gain an increased understanding of the firm-investor communication process" (ibid.: 364). The regulatory context, structural attributes, and the informative and promotional purposes of earnings press releases were explored to identify the linguistic features of earnings press releases. The results indicated that earnings press releases share some similarities with annual reports in that they all report the performance of a company during an accounting period; they all use both narrative language and accounting language; and they all consist of a number of subgenres. Similar to annual reports and other forms of corporate communication, earnings press releases serve both informative and promotional purposes (Henry, 2008). In addition, a sample of 1,366 firm-year observations for 562 firms "from the telecommunications and computer services industries and related equipment manufacturers for the period 1998 to 2002" (ibid.: 384) were examined to explore the relationship between the stock market reaction and how the earnings press releases are written. Henry (2008) identified that the tone of earnings press releases exerts influence on investors: the more positive the tone of earnings press releases is, the investors are more likely to think about the results positively, so as to lead to a market reaction. It was also identified that the length of earnings press releases diminishes the market impact of unexpected earnings, and weaker evidence was found that numerical intensity may diminish the market impact of unexpected earnings (Henry, 2008). Verbal complexity, on the other hand, does not influence market reaction.

The reliability and transparency of corporate communication have attracted much attention especially after the collapse of Enron and WorldCom from the perspectives including accounting and finance, business law, business ethics, and banking and investment (Bhatia, 2008; de Groot, 2014). Not many studies, however, have been

conducted from the linguistic perspective of corporate communication documents to identify the linguistic features of the documents and how the linguistic resources are used to persuade the stakeholders (Bhatia, 2008; Christensen & Cornelissen, 2011), despite the central position of language in corporate communication to convey information, ideas, communicating values, beliefs, and culture (Goodman, 2004).

2.3.2 Corporate communication and critical discourse analysis

Goodman (2004) proposes that corporate communication is an interdisciplinary area, covering anthropology, communication, language and linguistics, management and marketing, sociology, and psychology. Given the interdisciplinary nature of corporate communication, critical discourse analysis (CDA) is often adopted as the framework or the analytical approach (Fairclough, 2013; Bhatia, 2010; Merkl-Davies & Koller, 2012; Cheng, 2013). CDA views language as a kind of social practice (Fairclough, 1989; Wodak, 2001; Cheng, 2013) and highlights the power relations in the society (Wodak, 2011).

CDA is therefore an interdisciplinary or "transdisciplinary" area by cutting across boundaries between disciplines, such as linguistics, politics, economy, and sociology (Fairclough, 2013: 4). The aspect of economy is considered to be the most important aspect due to its dominance in contemporary societies and its strong and pervasive effects on all aspects of social life (Fairclough, 2013).

Nielsen & Thomsen (2007) conducted a critical discourse analysis of the reports of Corporate Social Responsibility (CSR) obtained from corporate annual reports of six Danish companies in 2004 with the aim to identify "what organizations say and how they say it" so as to explore whether "organizations report consistently on CSR in terms of genres, media, rhetorical strategies, etc" (ibid.: 25). The study began with a semantic topic analysis of the CSR reports to identify the issues that the companies have emphasized so as to give a rough idea of the corporations' identity and self-

understanding of corporate social responsibility. The identified semantic topics of the six CSR reports include employees, local community, environment, society, corporate governance and accountability, business strategy, and measurement of CSR initiatives. The semantic topic analysis was followed by an analysis of textual and rhetorical features in four dimensions, namely 'perspective' or "the role of business in society" in terms of people, profit, and planet, 'contextual information' in terms of market position, global/local, and CEO/history, 'stakeholder priority' in terms of employees, shareholders, customers, suppliers, media, and NGOs, and 'CSR ambition level' in terms of low, middle, and high (ibid.: 30-36), to identify the discourse strategies adopted in the CSR reports, so as to explore the power relations and the interaction between the corporations and their stakeholders. The analysis and comparison revealed that the reports of the six companies are very dissimilar in terms of semantic topics and textual and rhetorical features, implying the differences in the corporations' view of the most important stakeholders and their attitudes towards corporate social responsibility.

Merkl-Davies & Koller (2012) examined the 2002 chairman's statement of Meggitt, a UK defence public limited company, at the three levels of CDA to explore "how managers use language strategically to impose their perception of organisational activities and outcomes" (ibid.: 184). At the level of text, the use of impersonalisation and evaluation was studied in the chairman's statement. It was found that referential vagueness, passivisation, and grammatical metaphor in the form of nominalisation are the major devices of impersonalisation in the text being studied, with nominalisation being the most prevalent. In the study of evaluation at the level of text, the instances of evaluation were categorised according to their desirability (positive or negative) and directness (explicit or implicit). Findings showed that more than half of the instances are explicitly positive and one third are implicitly positive. The only three instances of negative evaluation are towards external circumstances, and by contrast, financial performance, board members and employees are all evaluated positively. At the level of discourse practice context, although the section being studied is entitled 'chairman's statement' with chairman's photo and signature, the identity of chairman is

"linguistically almost entirely absent" and his function in the text is "purely symbolic" (ibid.: 187), representing senior management rather than himself. Based on the findings, the researchers argued that the main target audiences of the chairman's statement are shareholders. All the four investor concerns in the defence industry proposed by Capelle-Blancard & Couderc's (2008) were observed to be addressed in the chairman's statement, namely earnings information, news about mergers and acquisitions, future public military spending, and geopolitical events, indicating the importance of shareholders in the chairman's statement. At the level of social context, the content of the chairman's statement was linked to the social and political background. More than half of the texts in the chairman's statement were on the five strategic acquisitions from major players in the defence industry and the appointment of a non-executive director with a strong military background, signaling a major strategic re-orientation from civil and military aviation industry to predominantly military aviation industry, which is a response to the external political environment of the wars in the Middle East, with the purpose to convince the readers that the company is an attractive investment opportunity. By studying the discourse at the three levels, Merkl-Davies & Koller (2012) show how linguistic and semiotic devices are used strategically to achieve the communicative goals of the management.

2.3.3 Corporate annual reports

Corporate images from various perspectives (e.g. social or financial) and over time would collectively represent the corporate reputation (Riel & Fombrun, 2007; Cornelissen, 2010; de Groot, 2014), which may influence the market value (e.g. Smith, Smith & Wang, 2010), customer loyalty (e.g. Chun, 2005; Walsh et al., 2009), and employer attractiveness (e.g. Cable & Turban, 2003). The promotional features of corporate annual reports may also serve to exert influence on financial journalists to report the corporation positively, on analysts to evaluate the past and future performance of the corporation positively, and on investors to build up their confidence so as to stimulate investment (Henry, 2008).

The history of corporate annual reports can be traced back to 1827 (Plung & Montgomery, 2004). During these years, corporate annual reports developed from simple financial data required by law to corporate communication tools, containing both compulsory disclosure and voluntary disclosure (Wang et al., 2012; Mobasher et al., 2013). As widely observed (see, for example, Bhatia, 2008; Ditlevsen, 2012; Breeze, 2013), corporate annual reports have undergone a shift from purely informative documents to increasingly promotional ones. The promotional purpose is becoming so obvious that Thomsett (2007) regards it as "a public relations tool and is not intended to inform you so much as to sway your opinion" (ibid.: 1). The informative and promotional purposes of corporate annual reports, which co-exist and may sometimes conflict with each other, make the genre complex.

The corporate annual report is one of the most important tools in corporate communications (Stanton & Stanton, 2002; Courtright & Smudde, 2009; de Groot, 2014). Goodman (2004: 213) asserts that "the annual report is the primary publication that is given freely to introduce the company to the outside world". Like other corporate communication tools, including earnings announcements, earnings calls, press releases, and notes from annual general meetings (de Groot, 2014), corporate annual reports aim to build favourable relationship with investors, opinion formers, such as analysts and journalists, authorities, customers, suppliers, and media (Rowbottom & Lymer, 2010) as well as to construe positive images to any stakeholder with a performance-related interest in the company (Dolphin, 2004; Breeze, 2013), since the focus of corporate communication has been shifting from investment community to a broader interpretation of community including all stakeholders (Goodman, 2004). The expressive, informative and relational functions are fulfilled in the same document (Ditlevsen, 2012), with the relational function being indirect but essential to perpetuate the image and identity of the corporation (Goodman, 2004). About 73.7 per cent of the Fortune 1000 companies used vendors and agencies in the preparation of annual reports, only preceded by advertising in the various forms of corporate communication (Goodman, 2004).

2.3.4 Sections of corporate annual reports

Corporate annual reports are composed of various sections, including chairman's statement, report of the directors, report of the auditors, financial statements, notes to the financial statements, management's discussion and analysis, and five-year summary of selected financial data (Hui & Ng, 2007; Fraser & Ormiston, 2007; Gibson, 2009; Wang et al., 2012).

These sections have been roughly divided into two groups (see, for example, Crowther, Carter & Cooper, 2006; Mobasher et al., 2013; Breeze, 2013; Sandell & Svensson, 2016), namely the detailed accounting information represented by measures, numbers and statistics (Sandell & Svensson, 2016), i.e. the financial statements, and "the natural language of the corporation" (Crowther et al., 2006: 180) or "the narrative sections" (Mobasher & Ali, 2015: 14) represented by the "textualizations and contextualizations of these numbers in the form of descriptions, stories, explanations, metaphors, and so forth" (Sandell & Svensson, 2016: 6), i.e. the remaining sections of the corporate annual reports provided by the company.

Ditlevsen's (2012) is one of the few attempts to classify the sections of corporate annual reports into more detailed categories. Ditlevsen (2012) conducted diachronic study of the annual reports of the Danish company Danisco from 1935 through 2007-2008 and the sections of the annual reports were divided into eleven potential categories, which are listed in order of the relevance to financial information in Table x (ibid.: 98). Category 11 is the only category that vanished after 1976. As widely agreed, Ditlevsen (2012) argues that annual report serves two subordinate communicative purposes: "to give a true and fair view of the state of the company and to provide a positive image of the company" (ibid.: 92). The primary communicative purposes and prototypical texts of each potential category are as follows:

Table 2. 1 Categories of Texts in the Annual Report (Ditlevsen, 2012)

	Category	Communicative purpose	Prototypical texts
1.	Financial position of the company	giving a true and fair view of the state of the company's affairs	Balance sheet, Income statement, and Cash flow
2.	General performance of the company	giving a true and fair view of the state of the company's affairs	Operational review, Sustainability report, corporate governance report, and general performance of the company
3.	Selected topics about specific company matters	providing a positive image of the company	Text on employees, Mission and visions, Environmental issues, Ethical issues, and Knowledge as an asset in its own right
4.	Statements	giving a true and fair view of the state of the company's affairs	Auditor's report and Sustainability verification statement
5.	At a glance	giving a true and fair view of the state of the company's affairs	Financial highlights and Summaries of the company's profit-and-loss account, balance sheet, and controlling interests
6.	Views of management	providing a positive image of the company	CEO's letter
7.	Topics of special interest to shareholders	giving a true and fair view of the state of the company's affairs	Shareholder information, Convening of the ordinary general meeting, and

			Special interest to shareholders
8.	Management of the company	giving a true and fair view of the state of the company's affairs	Presentation of the company's executives and board of directors
9.	Communication data	more neutral or balanced communicative purposes	Company address
10.	Metacommunicative texts	more neutral or balanced communicative purposes	Table of contents, Definitions of key figures and financial ratios, and Legal status of the Danish and English version
11.	Obituaries	more neutral or balanced communicative purposes	Obituary

Based on the analysis of the macrostructure and the visual elements of the annual reports, Ditlevsen (2012) divided the period into four phases, namely phase 1 from 1935 through 1958, phase 2 from 1959 through 1988, phase 3 from 1989-1990 through 2005-2006, and phase 4 from 2006-2007 through 2007-2008. Considerable increase was observed in the number of pages, texts, and visual elements throughout the period (Ditlevsen, 2012). The annual reports in phases 1 and 2 are identified to primarily serve the subordinate communicative purpose of giving a true and fair value of the state of the company's affairs, with those in phase 2 having more kinds of text and more visual elements; the annual reports in phase 3 serve both subordinate communicative purposes of "giving a true and fair view of the state of the company's affairs and providing a positive image of the company" (ibid.: 106), but still with more texts serving the first subordinate communicative purpose; and the annual reports in phase 4 serves primarily the subordinate communicative purpose of giving a true and fair view of the state of the company's affairs (Ditlevsen, 2012).

As suggested by Ditlevsen (2012), the evolution of the annual reports of Danisco can be explained by both the changes in situational factors, such as disclosure requirements and the need of stakeholder communication, and the history of change within the organization, such as the 25th anniversary, the merger between Danisco and two other companies, and the change of business strategy. The internal factors would make it difficult for the results to represent the situations of other companies.

Since Ditlevsen (2012) is a diachronic study of the corporate annual reports of one company, some of the sections were not found in the pilot study of the 42 Hang Seng Index constituent companies and differences were observed in the titles, contents, and communicative purposes of the constituent sections.

Bhatia (2010), after studying the annual reports of 15 Hong Kong Stock Exchange listed companies, proposes that "the annual report was a typical combination of at least four interesting but different discourses included in the same document" (ibid: 39). The four kinds of discourses identified by Bhatia (2010) are:

- *Accounting discourse*, which forms a major part of the Annual Reports, duly endorsed, certified by public accountants.
- *Discourse of economics*, in the form of what is conventionally known as the financial review section of the report.
- *Public relations discourse*, in the form of the chairman's letter to shareholders, for which public accounting firms do not take any responsibility.
- *Legal discourse*, which forms a major part of disclaimers, often necessary to comprehend the full implications of the information disclosed in the report.

(Bhatia, 2010: 39)

Accounting discourse, the communicative purpose of which is "to report accurately and factually on the basis of financial evidence of past corporate performance" (Bhatia, 2010: 43), is a typical response to the authoritative requirements to provide audited

summary of the status of the corporation and its business operations (Thomsett, 2007; Bhatia, 2008). It is composed of three major sections, namely the financial statements, independent auditor's report, and the notes to the financial statements. The section of financial statements is composed of income statement, which reports revenues and expenses, gains and loss, and net income (Gibson, 2009), balance sheet, which report the values of assets, liabilities and total equity (Thomsett, 2007), statement of changes in equity, which summarises the balances of equity accounts at the beginning and at the end of the financial year (Gibson, 2009), and cash flow statement, which demonstrates the inflows and outflows of cash (Gibson, 2009). Independent auditor's report is a one or two page report by independent auditor on the fairness of the financial statements (Fraser & Ormiston, 2007). The notes to the financial statements are in the forms of both texts and tabular forms to provide additional information to financial statements and to explain how the figures were calculated (Fraser & Ormiston, 2007; Thomsett, 2007). It is often the largest section of CARs (Thomsett, 2007), but is also claimed to be one of the least read sections of annual reports (Chang & Most, 1977). Financial statements and the notes are prepared by the company's accounting department, approved by vice presidents and chief financial officers, and then reviewed by the internal auditing department before sending to an independent accounting firm for examination and certification (Thomsett, 2007). Accounting discourse is the only discourse that is audited and certified by independent auditors.

Although the section of financial statements in the accounting discourse only covers several pages, accounting for a small percentage of the whole annual report, it forms the basis for the understanding of the financial status and performance of the company (Fraser & Ormiston, 2007). It is also the basis for the discourse of economics, which is provided by the company for the review of the performance of the company. This discourse is based on the statistics in the financial statements, but without the certification of auditors (Hui & Ng, 2007; Bhatia, 2010).

The discourse of economics is concerned with the explanation and interpretation of the disclosed in the accounting discourse, so that it shares some accounting information

with the accounting discourse. The difference between these two discourses lies in two major aspects: the discourse of economics focuses on the discussion and analysis of the figures (Bhatia, 2010), and it is not audited by the independent auditors. The typical section of the discourse of economics is management discussion and analysis, in which the financial statements are discussed and interpreted (Yuthas et al., 2002) to explain some technical accounting issues and to assist the readers to understand the financial situation and assess the future of the corporation (Stittle, 2003). Since the target readers are not confined to the professionals with accounting background, this section is expected to be written in a less technical and less complicated style than accounting discourse (Stittle, 2003). Some other titles of this section or parts of this section are performance, financial review, operating and financial review, management's review, managing director's report, review of operations, and business review, etc.

In addition to the section of management discussion and analysis, the sections also include financial highlights in the forms of tables, charts, graphs, and short texts at the beginning of the annual report, five- or ten-year financial summary, the summary of financial data including net sales, income or loss, total assets, and cash dividends per common share in the last five or ten years to show the readers the overall trends (Fraser & Ormiston, 2007), and unaudited supplementary financial information, which is generally at the end of the discourse of accounting but is not audited by the independent auditors, are also included in the discourse of economics.

The primary purpose of public relations discourse is to "promote a positive image of the company to its shareholders and other stakeholders in order to sustain their confidence in future corporate performance" (Bhatia, 2010: 43). The typical section of public relations discourse is chairman's statement, which is also called chairman's letter, president's letter, management messages, report of the chairman and the managing directors, chairman's letter to shareholders, letter to shareholders, chairman's report, the CEO's letter, executive letter, message from the chairman or something similar. As observed by Yuthas et al. (2002), it is not a compulsory section

but is typically included. The chairman's statement covers generally the following matters:

- a summary of the general trading conditions over the financial year, usually placing the company's trading position in the context of the national and global economics
- particularly good or bad trading performances by individual subsidiaries or divisions
- the contribution of employees
- events of a special nature – for example, the opening and closing of factories or offices, staff redundancies and new business ventures
- overall company strategy and plans for the future

(Stittle, 2003: 79-80)

As the most widely read section of the corporate annual reports, the chairman's statement informs the stakeholders about the performance of the company in the previous financial year (Thomsett, 2007; Bhatia, 2008), with the purpose to create a positive corporate image of the corporation so as to establish credibility and gain trust from the readers (see, for example, Anderson & Imperia, 1992; Kohut & Segars, 1992; Clatworthy & Jones, 2001; Stanko & Zeller, 2003; Merkl-Davies & Brennan, 2007; Mobasher et al., 2013). It "has enormous rhetorical importance in building credibility and imparting confidence, convincing investors that the company is pursuing sound and effective strategies" (Hyland, 1998: 224). According to the notion of 'recognition heuristic' proposed by Gigerenzer (2001), the readers tend to put more emphasis on the portion of text with which they are familiar, chairman's statement is therefore the most overweighted part of corporate annual reports for the majority of the readers, especially for the less sophisticated ones (Henry, 2008). Although the chairman's statement is signed by the president or CEO of the company, it is usually a collaborative product by the president or CEO, chief financial officer, and chief legal officer (Thomas, 1997).

Analysing chairman's statement, Bhatia (2008) found that it often has seven moves, namely Move 1) looking back, Move 2) identifying important themes, Move 3) elaboration on themes, Move 4) expectations and promises, Move 5) expressions of gratitude, Move 6) looking forward, and Move 7) positive and polite closing. Each move has its own lexico-grammatical features (Bhatia, 2008). For example, in the elaboration of achievements in Move 3, the use of perfect tense is very common, e.g. "*have concentrated*", "*have increased*" (ibid.: 171); and in the expectations and promises in Move 4, a combination of the pronoun *we* and verbs such as *expect* and *hope*, and positive nominals such as *progress* and *expansion of business* are very commonly used (Bhatia, 2008). These lexico-grammatical features indicate the positive tone of the chairman's statement, which is suggested to be interpreted in the context of professional practice that "businesses often downplay any indications of negative performance to highlight positive aspects for future growth" (ibid.: 172).

In addition to the chairman's statement, the public relations discourse also includes the sections of corporate profile, which gives an introduction of the company to establish a positive image; chief executive's report, which enlarges the issues highlighted by the chairman with a focus on key strategic issues of business structure and the impact of certain decisions on shareholders (Stittle, 2003); corporate social responsibility, which includes reports on social, environmental and ethical issues (Reynolds & Yuthas, 2008), such as the public service activities and the efforts in environmental protection, with the emphasis on the interactions with the natural environment, employees, communities, and customers (Stanton & Stanton, 2002); mission statement, which "tells two things about a company: who it is and what it does" (Falsey, 1989: 3), or in other words, gives a brief introduction to the corporation, highlights its goals and operating principles, and promotes its values and beliefs to establish a positive image in the minds of the public (Goodman, 2004).; and honors and awards, which records the honors and awards of the corporation during the financial year.

According to Bhatia (2010), legal discourse generally refers to the disclaimers, which disclaim the forward-looking statements to provide a "safe harbor against potential litigation" (Henry, 2008: 367). In the study of the 18 annual reports, it is found that legal discourse is not limited to disclaimers, but also some warrants, which guarantee the readers that no false information or misleading statements are included in the annual report. The legal discourse is generally very short, ranging from one paragraph to five pages.

Public relations discourse is the most widely read discourse in the CARs, since the language of the accounting discourse and the discourse of economics are highly technical and difficult to interpret and understand, and therefore can be of little use to the readers without accounting background (Thomsett, 2007).

The four discourses proposed by Bhatia (2010) cover the majority of the annual reports. However, some sections are still left unclassified, which include corporate governance report, report of the directors, risk management report, remuneration report, and biographical details of directors and senior management. These sections are used to report the information of corporate governance, so that corporate governance discourse is added to the list as the fifth discourse contained in annual reports.

Corporate governance report is a typical section of the corporate governance discourse. In the Appendix 14 to the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (Listing Rules), all the listing companies are required to "include a Corporate Governance Report prepared by the board of directors in their summary financial reports" (Appendix 14: 2). The corporate governance report must include the issues of corporate governance practices, directors' securities transactions, board of directors, chairman and chief executive, non-executive committees, board committees, auditor's remuneration, company secretary, shareholders' rights, and significant changes in investor relations (Appendix 14). Other issues of share interests of senior management, other investor relations, internal controls, and management functions are optional but recommended in Appendix 14.

Report of the directors, "a compulsory catalogue of details required by the Hong Kong Companies Ordinance" (Hyland, 1998: 227), is generally presented together with the audited financial statements. It gives a very brief introduction, most of which leads the readers to other sections in the annual report for further information, to the company operation and internal governance, such as principal activities, directors' and chief executive's interests in securities, and audit committee. As observed by Martin (1989: 235), it is "little more than a clearing house for reference to other parts of the annual report". It explains why endophoric markers, discourse markers which refer the readers to other parts of the text for information, are observed (Hyland, 1998) more frequently in this section than in chairman's statement.

Risk management report is concerned with principles and activities taken by the company to manage and mitigate the risks in the achievement of business objectives. Remuneration report and biographical details of directors and senior management, the titles of which are self-explanatory, report the remuneration information and biographical details of the directors and senior management respectively. These sections are all associated with the governance of the company, so that they can be classified as corporate governance discourse.

2.3.5 Studies on corporate annual reports

Mobasher et al. (2013) classified the studies of corporate annual reports into studies conducted on the texts of CARs (see, for example, Kohut & Segars, 1992; Thomas, 1997; Hyland, 1998; Rutherford, 2005) and studies conducted on the images of CARs (see, for example, Anderson & Imperia, 1992; David, 2001; Bernardi et al., 2002). Since the present study does not include image analysis, only the studies on the texts of CARs are reviewed in this chapter.

Concerning the topics of study, the studies on the texts of CARs can be further classified into several groups: some studies investigate the readability of the annual reports (see, for example, Courtis, 1986; Schroeder & Gibson, 1990) and its association with some possible influential factors, such as financial performance, risk, and press appearance (see, for example, Rutherford, 2003; Courtis, 1998; 2004); some studies are textual analysis of the CARs, especially the analysis of the lexis in the CARs (Yuthas et al., 2002; Rutherford, 2005; Malavasi, 2007; Lischinsky, 2011; Murphy, 2013); some studies are the genre analysis of the CARs, especially the analysis of the moves or themes of the CARs (see, for example, Kohut & Segars, 1992; Thomas, 1997; Flowerdew & Wan, 2010); and some studies are combinations of textual analysis, genre analysis and/or readability (see, for example, Clatworthy & Jones, 2006; Williams, 2008; Dragsted, 2014).

Studies on readability of CARs have been focused on the sections of chairman's statement, notes to financial statements, and Management's Discussion and Analysis (MD&A) (Courtis, 1986, 1998, 2004; Schroeder & Gibson, 1990; Rutherford, 2002, 2003). The readability was measured with Flesch or Fog index (Courtis, 1986, 1998, 2004) or a combination of Flesch index, the use of passive voice, word length, and sentence length (Schroeder & Gibson, 1990).

Studies revealed that all these sections are difficult to read, with chairman's statement slightly easier than the other two sections (Courtis, 1986; Schroeder & Gibson, 1990). The study of the use of passive voice revealed that MD&As and President's Letters use much less passive voice than notes to financial statements and no significant difference was observed in the use of passive voice between MD&As and President's Letters. Relationship between readability and various factors such as corporate risk and return (Courtis, 1986; Rutherford, 2003), company performance (Courtis, 1998; Rutherford, 2003), frequency of press appearance (Courtis, 1998), the release of good or bad news, corporate age (Courtis, 2004), organisational complexity (Rutherford, 2003; Courtis, 2004), and company size (Rutherford, 2003) has been explored. Only weak association was identified between readability and frequency of press appearance,

release of bad news, and company size, and no association was identified with the other factors (Courtis, 1998, 2004; Rutherford, 2003). The studies found "no systematic evidence to indicate that obfuscation is being used as a tool to deliberately deceive readers" (Courtis, 2004: 308).

The textual analysis of CARs mainly focuses on the study of lexis or phraseology, including the use of metadiscourse (Hyland, 1998), evaluative lexis (Malavasi, 2007), terms for financial crisis (Lischinsky, 2011), keywords (Murphy, 2013; Poole, in press), lexical features (Yuthas et al., 2002; Rutherford, 2005; Wang et al., 2012), and textual characteristics (Clatworthy & Jones, 2006) mainly in the sections of CEO's letters or chairman's statements and Management's Discussion and Analysis (MD&A) or Operating and Financial Reviews (OFRs).

Studies revealed that the difference in the communicative purposes of the sections leads to different language features. For example, Hyland's (1998) comparison of the use of metadiscourse between CEO's letters and Director's reports in corporate annual reports showed that although they both have more textual metadiscourse than interpersonal metadiscourse, CEO's letters contain 2.5 times more metadiscourse per 100 words and 6 times more interpersonal metadiscourse than directors' reports (Hyland, 1998), with the communicative purpose of directors' report to provide "a simple record of company particulars" and CEO's letter to "influence the audience" (ibid.: 232).

It is also found that different situations of financial performance may result in different language features. For example, Yuthas et al. (2002) conducted a quantitative study on the lexis of the sections of President's Letter (PL) and Management's Discussion and Analysis (MD&A) in the annual reports of three groups of companies (namely negative companies with the first-quarter earnings at least 20% lower than financial analysts' forecast, positive companies with higher-than-expected first-quarter earnings, and neutral companies with no earnings surprise in the first quarter) to investigate the ethical characteristics of the texts. The comparison indicated that "firms expecting both

good and bad earnings surprises exhibited a higher level of communicative action than a composite average firm" (Yuthas et al., 2002: 141), implying that these companies have stronger desire to establish an honest and trustworthy image (Yuthas et al. 2002).

Another example is Murphy (2013), who conducted a comparative corpus study of Letters to Shareholders in three years of different financial environment (namely 2006 representing a good year, 2008 representing a year of financial crisis, and 2010 representing the end of financial crisis) by investigating the CEO Letters corpus (CEOL corpus) to verify whether the main message from the CEOs is the same in different economic environment and to explore the influence of the adoption of different software programmes on the findings. DICTION 5.0 was first used to analyse the sub-corpora on the basis of five master variables, namely activity, certainty, optimism, realism, and commonality. It was found that the lexis in the CEO letters are active, not certain, highly optimistic, not realistic, and indicating acceptance of in-group conformity (Murphy, 2013). But no statistically significant difference was observed from the comparison of the three years. Key word lists and key semantic domain lists of CEOL 2008 to CEOL 2006 and CEOL 2010 showed that the main message from the CEOs is that 2008 is "a difficult, negative year" (ibid.: 67). However, closer analysis of the concordances of the keywords and key clusters in CEOL 2008 showed that positive elements indicating achievements, status, and confidence of economic recovery are frequently co-selected. It shows that the corporations are still optimistic or trying to establish a positive image even during the financial crisis.

Poole (in press) conducted a similar comparative study on the keywords of the letters to shareholders of two Fortune 500 banking institutions over three years from 2008 to 2010. One banking institution was Bank of America (BoA), which reported losses for 2010, after reporting profits in 2008 and 2009; the other banking institution was Citigroup, which reported profits for 2010, after the loss making in 2008 and 2009. The node texts were compared to two sets of reference corpora: one as "internal reference corpora" (ibid.: 6) consisting of letters to shareholders from ten highest-ranking commercial banking institutions for the three years and the other as external

reference corpora consisting of letters to shareholders from high-performing companies outside the banking industry for the three years (Poole, in press). The analysis of the keyword lists revealed three major findings: in the years of poor performance, more forward-looking lexical items are used in the letters to shareholders to outline plans for future improvement so as to restore investors' confidence; in the years of high performance, more personal pronouns and names are used to attribute the success to the leadership of the company so as to establish credibility; while in the years of poor performance, these personal pronouns and names are not key any more to distance the authors from the poor performance of the company (Poole, in press).

Lischinsky (2011) investigated "how the global financial crisis is discursively constructed" (ibid.: 154) by studying the terms for the financial crisis, namely CRISIS, DOWNTURN, RECESSION, SLOWDOWN, SLUMP, TURBULENCE, and TURMOIL, their collocates and discourse preferences in a corpus of 50 financial and corporate social responsibility reports from Swedish companies with AntConc (Anthony, 2005). The comparison of the corpus of annual reports with the British National Corpus revealed higher frequency of the terms for the crisis in the annual reports than in general English, with DOWNTURN and SLOWDOWN "favoured with unusual frequency by the writers of these reports" and SLUMP being "especially infrequent" (Lischinsky, 2011). The lexical collocates of these six terms, except for those of SLUMP due to its rare occurrences (3 times), were identified with AntConc. High similarity was observed from the collocates, with most of which associated with economics and the market. The collocates are all generic words such as BUSINESS and INDUSTRY, which "give few clues as to the specific nature of this crisis" (ibid.: 158). Although the collocates such as WORLD, GLOBAL, SUSTAINED, and SEVERE are co-selected to underscore the severity of the crisis, "no concrete processes or actors are immediately apparent" (ibid.: 159). Qualitative analysis of the concordances supports the findings of the quantitative analysis that the discussions of crisis in the annual reports, with the focus on effects and remedies, are general and abstract, without talking much about its causes and its concrete impact on specific agents.

Some studies puts more focus on word frequencies and charged words. For example, Rutherford (2005) studied the word frequencies of Operating and Financial Reviews (OFRs) of 68 companies, in which seven groups of 10 companies were identified, namely loss-making, least profitable, most profitable, largest, smallest, highest geared, and lowest geared. The 50 most frequent words from each group were consolidated into a list of 90 individual words, which were then classified into categories based on the purpose of the OFR, such as general words (e.g. *British*, *facilities*, *management*); financial performance (e.g. *loss*, *margins*, *revenue*), financial position (e.g. *assets*, *borrowings*, *debt*), and comparison (e.g. *rate*, *reduced*, *up*) (Rutherford, 2005). The words of comparison, which are similar to 'movement' in the current study, were further divided into three groups according to "their directional connotation" (ibid.: 370), namely 'up' words, including *growth*, *higher*, *increase* or *increased*, and *more*; 'down' words, including *decrease* or *decreased*, *lower*, and *reduced* or *reduction*; and 'neutral' words, covering all the remaining words of comparison, such as *compared*, *level*, and *than*. It was revealed that the frequency of 'up' words is more than three times higher than that of 'down' words (Rutherford, 2005). The study of charged words indicated that approximately 80% of all the charged words indicate positive meaning. Clear evidence of Pollyanna effect was revealed in the OFRs across all the groups, such as the more frequent reference to profits than to losses, the more frequent reference to assets than to liabilities, and the more frequent use of "positively charged words and 'up' words" (ibid.: 366), with stronger effect in poorly performing companies (Rutherford, 2005).

Another example is Malavasi (2007), who studied the evaluative lexis in the bank annual reports to explore how the promotional and persuasive nature of annual reports is realised. 142 narrative sections with approximately 473,000 words of 47 annual reports of nine major European banks between 1995 and 2002 were selected for study (Malavasi, 2007). These sections are the Chairman's Statement, the Chief Executive's Report, the Bank and Business Description, and the Corporate Governance Description. The words "*group(s)*, *bank(s)* as well as their proper name, *business(es)* and *service(s)*" (ibid.: 176) were searched for in the corpus with WordSmith (Scott, 1999)

for the manual identification of the evaluative lexis. It was identified that evaluative words tend to be co-selected with all the nodes, with all the evaluation being positive, e.g. adjectives including *best*, *first-rate*, and *world-class*, verbs including *outperform*, *improve*, and *gain*, and nouns including *excellence*, *soundness*, and *improvement* (Malavasi, 2007). However, more positive evaluation is realised in "an indirect and more implicit way" (ibid.: 177), i.e. through the co-selections with "a positive pragmatic meaning or semantic prosody" (ibid.: 180) of the context. The use of the concealed evaluative strategies indicated the banks' desire to persuade the readers "sensitively, tactfully and objectively" (ibid.: 181). This finding supports the argument that the word does not make meaning by itself, but together with its surroundings (e.g. Sinclair, 1996; Stubbs, 2001; Partington, 2004; Cheng, 2006).

Wang et al. (2012) explored the lexical features of corporate annual reports by studying a corpus consisting of 120 pieces of corporate annual reports in 2011 with WordSmith Tools 4.0 (Scott, 2004) from the perspectives of lexical richness, word length, keywords, first person pronouns, hedges, and evaluative words. The corpus was divided into nine sub-corpora based on section, namely Company Description, Chairman's Statement, Business Overview, Management's Discussion and Analysis, Corporate Social Responsibilities, Corporate Governance, Auditor's Report, Financial Statements and Notes, and Investor Information (Wang et al., 2012). The comparison revealed different lexical features across the sections. For example, the vocabulary of chairman's statement is the richest of the nine sections, followed by the report of corporate social responsibilities, with the vocabulary of auditor's report being the least rich one (Wang et al., 2012). It was also identified that more positive words, such as *benefit*, *best*, *growth*, and *increase*, are used in the corporate annual reports than negative words, such as *decrease*, *loss*, and *unrealised*, especially in the sections of chairman's statement, business overview, management's discussion and analysis, and financial statements. The lexical analysis contributes to a better understanding of corporate annual reports and their language features. It is also one of the few studies that try to compare the different sections of corporate annual reports.

Some studies focus on the textual characteristics of the corporate annual reports by studying the moves and strategies. Kohut & Segars (1992) studied the content of presidents' letters of the top and bottom 25 corporations of the Fortune 500 based on return on equity to identify whether presidents' letters in high and low performing companies are different in terms of technical characteristics such as word count and number of sentences, themes, and time frame of themes. Each sentence of the presidents' letters was coded as a unit and the coded sentences were classified according to their dominant themes and past or future reference (Kohut & Segars, 1992). Six recurring themes were identified from the analysis, namely environmental factors, growth, operating philosophy, product/market mix, unfavorable financial reference, and favorable financial reference. The comparison revealed that word count is the only significant difference, with high-performing corporations being "more verbose" (ibid.: 13) than low-performing corporations. The genre analysis indicated that both groups refer more frequently to the past themes, with the frequency in high-performing corporations higher than that in low-performing corporations; low-performance corporations refer to future operating philosophy more frequently than high-performing corporations; high-performing corporations refer to the product/market mix theme and favorable financial reference theme more frequently; and low-performing firms refer to unfavorable financial references more frequently, although still with low frequency, only 1.64 sentences per statement (Kohut & Segars, 1992). It was found that even low-performing corporations refer to favorable financial references (4.5 sentences) more frequently than unfavorable financial references (1.64 sentences). This study indicated that "financial performance influences the manner in which CEOs report annual corporate results" (ibid.: 7).

Thomas (1997) adopted a systemic approach to study the management messages in the annual reports of a machine tool manufacturer over the years 1984-1988, "which began with prosperity and ended with severe loss" (ibid.: 47), to explore the different linguistic features of good news and bad news in annual reports. The systems of transitivity, thematic structure, context and cohesion, and condensations were employed in the analysis (Thomas, 1997). The study revealed an increase in the use of

passive constructions as profits decrease and a prevalent use of relational process verbs and nonhuman agents, a significant decrease in the use of the pronoun *we* as the theme and a corresponding increase in the use of inanimate groups as themes, a close relationship between the management and the good performance of the company in 1984 and a combination of the bad news and good expectation in 1988, and the concealment of negative or more negative implications in a number of words, phrases, and clauses that appear slightly negative, neutral, or even positive (Thomas, 1997). These findings indicated that the writers of the messages tend to "take credit for the successes but distance themselves from the failures" (ibid.: 58).

Clatworthy & Jones (2006) compared the chairman's statements of 50 extremely profitable and 50 extremely unprofitable UK listed companies to investigate whether the reporting strategies of the companies are influenced by their financial performance. The study was conducted by the comparison of six textual characteristics, which are the length of the statements, the proportion of passive sentences, the number of personal references, the discussion of key financial indicators (profit, sales, dividends, and earnings per share), the use of quantitative references, and the focus on the future. The comparison revealed that "compared with profitable companies, unprofitable companies focus less on key financial indicators, use fewer quantitative results, fewer personal references and more passive sentences (although this is not significant), and focus more on the future" (ibid.: 506). No significant difference was observed from the length of the statements. The findings provide evidence to "the presence of impression management in the chairman's statement" (ibid.: 504). These differences in textual characteristics manifest the desire of profitable companies to emphasise the good news and the desire of unprofitable companies to downplay the bad news (Clatworthy & Jones, 2006). The results are in line with the quantitative bias demonstrated by Skinner (1994), the use of personal references observed by Hyland (1998) and Thomas (1997), and support Thomas' (1997: 58) argument that management "take credit for the successes but distance themselves from the failures". But they are different with Kohut & Segars' (1992) observation that profitable companies are more verbose than unprofitable companies.

Flowerdew & Wan (2010) studied the section of independent auditor's report by adopting both the contextual approach and the linguistic approach to genre analysis to explore how communicative purposes are achieved through the move structure of audit reports and the lexico-grammatical realisations and to investigate "the respective roles of templates and original writing in the production of such reports" (ibid.: 78). By studying a corpus of 25 authentic auditors' reports, Flowerdew & Wan (2010) identified that the audit reports consist of two obligatory moves and a number of optional moves with various frequencies. The lexico-grammatical analysis indicated that the less frequently occurring moves like QUALIFIED OPINION, DISCLAIMER OF OPINION, and BASIS FOR QUALIFIED OPINION are much less formulaic than the other moves such as SUMMARY OF CREDIBLE ACTIONS TAKEN and ADDRESS RESPONSIBILITIES. This finding was well explained by the results of interview and participant observation, which found that audit reports are highly standardized and templates are used in the production of the reports. However, original writing would be required in the circumstances where QUALIFIED OPINION or DISCLAIMER OF OPINION is involved (Flowerdew & Wan, 2010).

Conaway & Wardrope (2010) studied the CEO letters in 2005 corporate annual reports of 30 U.S.-based companies and 24 Latin American-based companies to compare the themes, writing features, and cultural attributes. Topic headings, subheadings, and central topics of the sentences or paragraphs in the CEO letters were manually identified and similar topics were grouped together as a theme (Conaway & Wardrope, 2010). The themes of the letters from the Latin America-based companies were found much more diversified than those of the U.S.-based companies (Conaway & Wardrope, 2010). A large number of themes in Latin American letters were not related to financial reporting, such as political and economic stability (Conaway & Wardrope, 2010). Such observation was interpreted by Conaway & Wardrope (2010) as Latin Americans' "high propensity to avoid uncertainty" (Becker, 2004: 120). The comparison of the writing styles revealed that the Latin American letters are shorter, but with more paragraphs and more themes; more passive constructions are used in

Latin American letters; and the writing styles of the Latin American letters are more formal, with sentences being longer and more complex (Conaway & Wardrope, 2010). The findings provide evidence to the argument that the function of corporate documents is not limited to the provision of factual information, but also "to influence public opinion and attitudes, particularly among potential investors, in ways that create support for organizational practices or undermine opposition to them" (ibid.: 141). The study is also a demonstration of how culture could be studied through thematic analysis of texts.

Ahmed Haji & Mohd Ghazali (2012) studied the voluntary disclosure in the annual reports of 85 companies listed on Bursa Malaysia in the years 2006 and 2009 to examine the impact of the 2007/08 financial crisis on corporate voluntary disclosure (CVD). The extent and quality of the CVDs were measured to analyse 'what is said' and 'how it is said' respectively. The extent of the CVDs was measured on a dichotomous basis of a self-constructed disclosure checklist with three categories (strategic information, financial information, and CSR information) and the quality was measured on the basis of a four-point Likert scale ranging from 0 to 3, with 0 representing that the company did not disclose the information at all, 1 representing that the information was only disclosed qualitatively, 2 representing that the information was only disclosed quantitatively, and 3 representing that the information was disclosed both qualitatively and quantitatively (ibid.: 111). The results of the comparison over the two years revealed that both the extent and quality of CVDs increased significantly following the global financial crisis, with CSR information is the most widely disclosed category. The findings lend support to the argument that the CVDs in corporate annual reports are used to influence society's perception of the corporations and their performance, and to legitimize their future existence (Deegan, Rankin & Voght, 2002; Ahmed Haji & Mohd Ghazali, 2012).

Some other works study the CARs from more than one aspect, i.e. they combine lexical studies, genre analysis and/or readability in their studies.

Clatworthy & Jones (2001) is a study combining readability and genre analysis. In the study of readability, they replicated Courtis (1998) by studying the chairman's statements of the 30 most profitable corporations and 30 most unprofitable corporations listed in UK and the relationship between readability and financial performance. In genre analysis, the thematic structures of the chairman's statement were studied to explore the effect of thematic structure on readability. It was found that the first passage of chairman's statement is easier to read than the other two passages and the last passage is the most difficult one. No significant difference in readability was observed between profitable statements and unprofitable statements, except for that the first passage from profitable companies is significantly easier to read than that from unprofitable companies (Clatworthy & Jones, 2001). In the analysis of thematic structures, eleven major themes were identified by the synthesis of the topics, such as future and/or outlook, results, and employees (ibid.: 317). The comparison revealed that profitable companies discuss significantly more frequently their results in the first passage of the chairman's statement than the unprofitable companies, implying the profitable companies' desire to establish a good image by talking about their good performance early (Clatworthy & Jones, 2001). The variability of readability of the passages was attributed to the thematic structure; in other words, "the contents of the first passage, which typically involves a broad discussion, are more readable than the middle and final sections, which typically involve more varied complex technical issues, such as firms' operations, financing or segmental analyses, employees and future outlook" (ibid.: 322).

Dragsted (2014) is a combination of the studies of readability, lexical studies and genre analysis of CARs. A comparative study of the letters to shareholders of a large Danish bank over three periods of time (2004-2007 before the financial crisis, 2008-2011 during the crisis, and 2012-2013 after the crisis) was conducted from the aspects of the title, readability and length, the recurrent and idiosyncratic themes, and the linguistic features of interactional discourse markers and charged words. WordList and KeyWords functions of Wordsmith Tools were used in textual analysis, with British National Corpus as reference corpus (Dragsted, 2014). The title of this section varied

from 'Summary' in 2004-2009 and 'Executive statement' in 2010-2011 to 'To our shareholders' in 2012 and 'Letter to our shareholders' in 2013. The readability and length analysis revealed that declining financial performance generally resulted in longer and more detailed letters to shareholders, and performance improvements usually led to shorter and less detailed versions (Dragsted, 2014). "Considerable variation" (ibid.: 92) was observed from the recurrent themes with respect to the frequency and position. For example, the frequency of the word *customer(s)* increases dramatically in the three periods of time, indicating the shift of the bank's focus to customers; the theme of *net profit* is introduced early in the years of high performance, while in the other years, it is introduced later, or even omitted (Dragsted, 2014). The analysis of the idiosyncratic themes revealed that the focus of the letters to shareholders shifts from the merger and acquisition events in pre-crisis period to Danish government's bank-related strategies during the crisis period, and financial recovery and trust rebuilding in post-crisis period. The study of self-mention discourse markers (Dragsted, 2014) indicated that in the pre-crisis period, the bank always refers to itself in the third person. Although the first person pronouns appeared in 2010, third person discourse markers still dominated in the crisis period of 2008-2011. Extensive use of first person pronouns was observed in the post-crisis period of 2012-2013, representing "a more personal writing style" (ibid.: 98). The study of engagement markers also supported this finding by observing more frequent engagement with readers in post-crisis period. The study of charged word revealed that the highest portion of neutral words occurred in pre-crisis period and the lowest portion in post-crisis period, which contained considerably more positively charged words instead (Dragsted, 2014). Although the highest portion of negatively charged words was observed in the crisis period, its distribution of positive words and negative words was "more or less even" (ibid.: 101). The comparison from these dimensions revealed "a general genre shift from relatively impersonal, factual expositions, using fairly technical and neutral vocabulary, into a more personal, engaging and letter-like address to shareholders, using a less specialized vocabulary and more charged words" and "a move towards a more persuasive purpose" (ibid.: 102). Dragsted's (2014) study is valuable in demonstrating a multi-dimensional analytical approach to letters to

shareholders, with the findings from each dimension support each other. But since the study is based on the letters to shareholders of only one bank institution, the writing style of which may be influenced by the writers and their educational experiences, it may not be safe to apply the findings to other institutions. The categorisation of charged words is based on the word lists, rather than within context. As suggested by Murphy (2013), some negative words may be co-selected with positive elements in the letters to shareholders to express positive meaning, which is in line with the arguments by linguists including Sinclair (1996), Stubbs (2001), Partington (2004), and Cheng (2006) that words should be studied with their co-selections.

Mobasher & Ali (2015) combined genre analysis with lexical studies to explore the moves of management forewords of CARs and the lexical features of each move. The corpus of 64 samples from Asian companies (31 from Kuwait and 33 from Malaysia) was studied with AntConc 3.3.5w (Laurence, 2012). Six moves and nineteen strategies were identified, with two to five strategies identified in each move (Mobasher & Ali, 2015). It was revealed that the six moves appear in the two sets of management forewords with a high distribution, and each move has its unique set of most frequent words (Mobasher & Ali, 2015). The high degree of regularity indicated that management foreword is "a relatively stable genre" (ibid.: 23), in which a standardized writing approach is adopted by the writers.

Williams (2008) is one of the few empirical studies on mission statements in CARs. Genre analysis and textual analysis were conducted on the mission statements or equivalents of 42 corporations listed on the 2006 *Fortune* 1000 list to investigate "possible links between mission statements and financial performance" (ibid.: 94-95). 14 firms with the highest profits were categorised as the higher-performing group and 13 firms with the lowest profits were categorised as the lower-performing group (Williams, 2008). The genre analysis of the two groups revealed that almost the same number of corporations in each group included the content components of customers, products or services, and self-concept; and significant differences were observed in the inclusion of the content components of survival, public image, and employees

(Williams, 2008). Textual analysis indicated a wide use of first-person-plural pronouns in mission statements of all the corporations studied. It was also revealed that the two groups mentioned excellence, integrity, and innovation with similar frequency. Higher-performing corporations mentioned teamwork and safety more frequently than lower-performing corporations (Williams, 2008). Expressions of goodwill were observed in all the mission statements. The recipients of goodwill in the two groups were similar, both with customers as the most frequently designated recipients. Higher frequency was observed in the mentioning of employees, shareholders, and communities or society as targeted goodwill recipients in higher-performing corporations (Williams, 2008). The wide use of first-person pronouns and positive values and the corporations' efforts to deliver goodwill revealed the strategies of the corporations to "create a strong ethos" (ibid.: 116).

In conclusion, corporate annual reports have been investigated by a number of studies from various aspects; however few studies have examined and compared all the sections of CARs, and even fewer have included the language of movement in their studies, except for the word frequency description of the words indicating 'comparison' by Rutherford (2005), despite of the great importance of movement for the investors and managers to assess the corporations' performance and to make investment decisions, for financial analysts to forecast future performance (Bernstein & Wild, 2000; Rutherford, 2005; Chow et al., 2006; Palepu & Healy, 2008; Gibson, 2009), and for the other readers, including employees, lenders, suppliers, and customers, to understand the operational and financial situation of the corporation and to make decision of future cooperation (Chow et al., 2006; Gibson, 2009).

2.4 Studies on the language of movement

Although the language of movement has not been studied systematically in corporate annual reports from the aspects of phraseology and grammar, it needs to be stated that a few relevant studies have been conducted in other fields from other aspects, including metaphoric studies on up and down in general English (Lan, 2000) and on economy and market movements in financial news (Charteris-Black, 2000; Charteris-Black & Musolff, 2003), and extraction of sentiment bearing texts in financial news by Ahmad et al. (2005, 2006).

Lan (2000) is one of the few studies that focuses on the topic of movement. Taking the cognitive approach to metaphor, Lan (2000) conducted a contrastive study of the metaphors of the spatial concepts UP and DOWN in English and their counterparts SHANG and XIA in Chinese, represented by the words *up*, *down*, *shang*, and *xia* respectively to find out their metaphorical extensions and to explore the similarities and differences in English and in Chinese. She proposes that UP and DOWN have two prototypical uses, namely the dynamic UP/DOWN referring to movement, e.g. "The unemployment rate has gone *up* to 4%", and the static UP/DOWN referring to a particular location, e.g. "The kite is *up* in the sky" (ibid.: 83). In these two examples, *the unemployment rate* and *the kite* are termed as 'trajector'; *4%* and the ground level are termed as 'landmark'. In the first example, the movement of the trajector *the unemployment rate* from being low to being high is called the 'path'; while in the second example, since it depicts a particular location rather than a movement, the path is considered to be zero. SHANG and XIA have three prototypical uses, namely the dynamic SHANG/XIA, the static SHANG/XIA, and the contact SHANG/XIA, which depicts "a contact between the trajector and the landmark", e.g. "报纸*上*放着一支笔; bozhi *shang* fangzhe yizhi bi; newspaper *up* place zhe one zhi pen; There is a pen on the newspaper" (ibid.: 87), in which there is a contact between the trajector the pen and the landmark the newspaper. In Lan's (2000) study, the spatial metaphor is considered to be the mapping of "the image-schematic structure of the domain of space onto that

of a non-spatial target domain" (ibid.: 77), such as quantity and social hierarchy; or in other words, "when we give other non-spatial domains a vertical space axis, a trajector, a landmark and a path, that will be called an instance of a metaphorical extension of UP/DOWN or SHANG/XIA" (ibid.: 89).

The study (Lan, 2000) revealed that UP and DOWN are "fundamentally dynamic concepts rather than static ones" (ibid.: 205), with only 2.27% of the occurrences of *up* and 5.53% of the occurrences of *down* carrying the static meaning; SHANG and XIA are "well balanced between their static side and their dynamic side" (ibid.: 206), with 65.33% of the occurrences of *shang* in the case of non-dynamic model (47.43% in contact model and 17.9% in static model) and 34.67% in the case of dynamic model and 54.15% of the occurrences of *xia* in the case of non-dynamic model (20.51% in contact model and 33.64% in static model) and 45.85% in the case of dynamic model. The majority of the occurrences of *shang* (72.4%), *xia* (77.56%), and *up* (87.52%) carry metaphorical meaning, while 45.38% of the occurrences of *down* carry metaphorical meaning. Despite the differences, a close correspondence is observed: all the four concepts have the same target domains, namely QUANTITY, SOCIAL HIERARCHY, STATES, and TIME. The UP and DOWN in English and SHANG and XIA in Chinese are similar by sharing the metaphorical extensions of three target domains, namely QUANTITY, SOCIAL HIERARCHY, and STATES: AT/TOWARDS A LARGER QUANTITY, A HIGHER STATUS, OR A MORE DESIRABLE STATE IS SHANG OR UP and AT/TOWARDS A SMALLER QUANTITY, A LOWER STATUS, OR A LESS DESIRABLE STATE IS DOWN. The only difference is associated with the target domain of TIME: AT/TOWARDS A EARLIER TIME IS SHANG; AT/TOWARDS A LATER TIME IS XIA; while TOWARDS A LATER TIME IS UP; and TOWARDS A LATER TIME IS DOWN.

Another study associated with movement is Charteris-Black (2000), in which metaphors of market movements were studied in *The Economist* magazine. It was identified that market movements are often described by inanimate metaphors: "*The Market is a Liquid*", "*The Market is a Ball*", and "*The Market is a Fun Fair*" (ibid.:

159) are observed from the words and phrases including *float/floating*, *bounce*, and *slide*.

In Charteris-Black & Musolff (2003) study of the use of metaphor in the financial reporting on the topic of the euro in Britain and Germany from September to November 2000, which is a period of turbulent financial trading, metaphors of movement were identified and studied. By studying the English corpus with 47 articles (25,017 words) and the German corpus with 63 articles (25,668 words), Charteris-Black & Musolff (2003: 159) observed three main metaphoric clusters in the English data corpus: "THE VALUE OF THE EURO IS AN ENTITY THAT MOVES UP AND DOWN"; "THE STATE OF THE EURO IS A STATE OF HEALTH/STRENGTH"; and "EURO TRADING IS PHYSICAL COMBAT", with the first two metaphoric clusters shared by the German data and the third one being a characteristic feature of British financial reporting. Metaphors of movement in English financial reporting, which shift from "the source domain of spatial movement to the target domain of value", are usually "buried metaphors that have become part of the conventional framework for financial reporting" (Charteris-Black & Musolff, 2003: 159), i.e. at the semantic level, such as *low/lower* and *fall/fell* in "such candid discussion on intervention strategy from policy makers and set the euro lower" and "The euro fell back below Dollars 0.90 later in the session" (ibid.: 160). But it is still observed that a few metaphors are used to "express either approval or disapproval of the movement", i.e. at the pragmatic level, such as *bolster* and *slip* in "the Group of Seven central banks intervened to bolster the euro on September 22" and "euro slips towards intervention zone" (ibid.: 160), although with a low frequency.

Focusing on the word *growth*, White (2003) studied metaphors in economic discourse by examining *The Financial Times* and other materials from economics books and journals. Three metaphorical uses have been identified from the word *growth* and its collocations. The most typical one is as "basic quantification" (ibid.: 135), which is used to highlight the increase and to quantify the extent of the increase, e.g. "*Growth* should double in the coming year" (ibid.: 135). It is "a more literal than metaphoric use

of growth" (ibid.: 135), with the focus on the quantification of the increase. Compared with the use of basic quantification, the other two metaphors are more metaphoric than literal. The metaphor "*The economy is a living organism*" (ibid.: 135), which is similar to "*The Economy is an Organism*" proposed by Charteris-Black (2000: 155), is identified and further categorised into "*The economy is a plant*", e.g. "*Healthy growth is primarily due to a competitive economy*" (White, 2003: 136-138) and "*The economy is an animal or a human*", e.g. "Jobs improve *on the back of strong growth*" (ibid.: 140). Another metaphor identified is "*The economy is a mechanical process*" (ibid.: 141), e.g. "Any increase in interest rates at this time would *trigger* a sharp decline in *growth*" (ibid.: 142).

These studies on movement provide an interesting insight of the meanings implied by the metaphorical use of the words indicating movement, and especially by their co-selections with words and phrases associated with economy and market value. Since they are all metaphorical studies, the words being studied are confined to those with metaphorical meanings. These studies focus more on the retrieval of "as wide a range as possible" (White, 2003: 134) of the metaphorical uses, rather than to draw a whole picture of the language of movement. While as observed in the current study, a great number of the most frequent movement expressions are composed of words without metaphorical meaning, such as *increased/HK$#/million* and *decreases/amount/impairment*, or are concerned with basic quantifications, which are considered to be "more literal than metaphoric use" (ibid.: 135) or "buried metaphors that have become part of the conventional framework for financial reporting" (Charteris-Black & Musolff, 2003: 159), such as *declined/per/cent* and *rose/per/cent*.

Ahmad et al. (2005) and Ahmad et al. (2006), which were reviewed in section 2.2.2, are similar to the current study in that the language of movement is studied from the aspect of local grammar. But in their studies, only the local grammar of the word *percent* was included and therefore cannot cover the whole picture of the language of movement; local grammar was used as an approach to text extraction, with the focus only on the syntactic patterns and actual words. For example, the local grammar of

percent when it occurs with *down* is represented as '*down* + (*more than*/ *nearly*/ *to*/ *from*/ *over*/ *about*) + numeral cardinal + *percent*' (Ahmad et al., 2005). The semantic aspect of local grammar was left unexplored.

2.5 Summary

Chapter 2 has reviewed studies on phraseology, local grammar, discourse-specific, genre-specific and professional-specific genres, and the language of movement. The review indicates that although the language of movement is of great importance in financial settings, it has not been fully described. Local grammar, as "a grammar that describes the language features of specific language patterns or specific kinds of language use" (Cheng, 2012: 215), is a suitable approach to the description of the language of movement in financial settings. Although more than 20 years have passed since the concept of local grammar was first proposed by Gross (1993), few studies have been conducted. These studies can be roughly divided into two groups: studies with a focus on language forms mainly for language parsing and studies with a focus on the function and meaning construal mainly for exploration and thorough description of language use. The current study falls into the second group. The pervasiveness of phraseologies in both spoken and written English has been widely observed, and a wide range of studies have been conducted on contiguous word co-selections. However, the word co-selections with positional or constituent variations have rarely been studied. The current study aims to be the first systematic study of the language of movement in financial English by studying the local grammar of phraseologies.

Chapter 3 Data description and research methodology

3.1 Data description

The corpus examined was a self-collected corpus entitled 'Corpus of Corporate Annual Reports (CCAR), 1.5 million words comprised of the latest annual reports of 18 Hang Seng Index constituent companies collected in June 2010. The Hang Seng Index constituent companies were selected because they are the largest and the most influential companies in Hong Kong and can therefore represent the situation of Hong Kong economy (Oxfam, 2010). The length of each annual report varies from 45,577 words to 272,946 words. The organizations of the corporate annual reports also vary, conforming to Thomsett's (2007) observation that there is no uniform format for annual reports. But a number of sections, such as chairman's statement, financial statements, notes to financial statements, and management discussion and analysis, can be found in almost all the annual reports.

In addition to the commonly shared sections, some sections are similar in their communicative purposes. The CCAR was therefore divided into five sub-corpora, with the classification based on Bhatia (2010). After all of the 18 annual reports had been read, one more discourse was added to Bhatia's (2010) four kinds of discourses. It is corporate governance discourse, composed of such sections as corporate governance report, report of the directors, risk management report, remuneration report, and biographical details of directors and senior management.

Table 3.1 shows the word counts of individual discourses (sub-corpora) of the Corpus of Corporate Annual Reports (CCAR).

Table 3. 1 Corpus of Corporate Annual Reports (CCAR)

Sub-corpus of CCAR	Word count	Percentage
Accounting discourse	594,522	39.55%
Discourse of economics	419,589	27.91%
Public relations discourse	110,076	24.82%
Legal discourse	5,796	7.32%
Corporate governance discourse	373,149	0.39
Total	1,503,132	100%

3.2 Research methodology

ConcGram 1.0 (Greaves, 2009) was used for the analysis of the corpora texts by generating 3-word concgram lists from the five sub-corpora. The major functions of *ConcGram 1.0* utilised in the study were unique word list, concgrams, and concgram search.

The study was conducted in four main steps: identify the phraseologies to be studied in each sub-corpus; study the local grammars of phraseologies conveying the meaning of movement in each sub-corpus; synthesize the local grammars of phraseologies to generate Local Grammars of each movement type in each sub-corpus, and compare the local grammars of movement across the sub-corpora.

In the first main step, the unique word lists of the five sub-corpora were generated respectively with the 'Statistics >> Unique words' function of ConcGram. The 2-word concgram lists were then generated with the 'Concgram >> Create new concgram list (automatically) >> Using ALL words in a text' functions based on the unique word list. In the prompted 'Concgram Preferences' dialogue, 'use exclusion list' was selected to discard the 50 grammatical words which constitute 40% of the English language (Ahmad, 2005).

The study of the 2-word concgram lists indicated that word co-occurrences was not confined to two words, but at least three words in a number of instances. For example, the two-word concgrams of *change/fair* and *change/value* were frequent. Co-occurrences of 3 words also applied to various other concgrams, including *increased/HK$* and *increased/million*, *declined/per* and *declined/cent*, and *changes/interest* and *changes/rates*. This observation extended the study of 2-word concgrams into the study of 3-word concgrams. Based on the 2-word concgram lists, 3-word concgram lists of all the five sub-corpora were generated with the procedure of 'Concgrams >> Load saved concgram list file >> All 3-word concgrams'.

The concgram list of each sub-corpus was then studied in detail to identify any potential concgrams that may convey the meaning of movement. The cutoff of the frequency was set to be 10 in the sub-corpora of public relations discourse, discourse of economics, governance discourse and accounting discourse, which means that the concgrams that occur 9 times or less were excluded from the study. In the sub-corpus of legal discourse, the frequency cutoff was set to be 3 due to the small size (5,796 words) of the sub-corpus.

The concgrams were then classified into four semantic categories, namely upward movement, downward movement, unspecified movement, and no movement. The potential concgrams in each semantic category were then searched for in the five sub-corpora respectively with the function 'Concgrams--Concgram Search (user specified)' to retrieve the concordance lines containing the potential concgrams.

The concordance lines were then examined to identify the associatedness of the co-occurring words. Judgment was made based on whether the three words occur in the same clause, i.e. in the same "unit structured around a verb phrase" (Biber et al., 1999: 120). The concgrams constituted by associated words were classified as phraseologies.

The second procedure basically followed the sequence of three steps: divide the text into composing elements and represent them in a linear order; conduct constituent

analysis on these elements, i.e. map the grammatical, semantic/functional labels on the constituent elements; and combine the texts that share grammatical patterns into several groups.

The study of the local grammar of each phraseology started with the investigation of the concordance of the phraseology. In the cases where the frequency of occurrence of the phraseology is more than 40, 40 concordance lines were randomly selected with the 'randperm' (random permutation) function of MATLAB® (http://www.mathworks.com/products/matlab). The random sampling of concordance lines has been widely adopted in corpus studies (Gale, Church, & Yarowsky, 1993; Gavioli & Aston, 2001; Stubbs, 2001; Hanks, 2004; Römer, 2004; Allan, 2009).

In Chapter 4, the local grammatical patterns of the 27 phraseologies were described, and shown in Table a of the analysis of each phraseology. A detailed description of the patterns and linguistic realizations is found in the Appendix. Discussion of the comparative local grammatical patterns of the phraseologies was followed by discussion of findings about the phraseological variation (Cheng et al., 2006; 2008) of each phraseology. A study of phraseological variation involved identifying all of the possible configurations of the phraseology and their frequencies. The frequency determined the canonical form which became the benchmark against which all of the other configurations were compared. Following Cheng et al (2008: 236), the analysis generated, for each phraseology, "a paraphrasable family with a canonical form and patterns of co-selection".

This analysis was followed by discussing the local grammar (lexico-grammar and semantic elements) and the paraphrasable family of each phraseology. Table b in the analysis of each phraseology shows the local grammar oriented relationship by mapping configurations to local grammatical patterns, and Table c indicates the configuration oriented relationship by mapping local grammatical patterns to configurations. Tables b and c reveal the relationship between local grammar and phraseological variation.

Then the local grammars of each movement type in each discourse were generated in Table A by synthesising the local grammatical patterns of all the four or five phraseologies in each type. The distribution of each local grammatical pattern across phraseologies was presented in Table B. Similarities and differences of the local grammatical patterns were then discussed. Similar local grammatical patterns were combined into patterns with obligatory elements and optional elements. The combined Local Grammatical Patterns are shown in Table C. Following the discussion of the combined Local Grammatical Patterns, the distribution of semantic elements across phraseologies (Table D) was compared.

After the generation of local grammars of each movement type in each discourse and the comparison among phraseologies, the local grammars were compared across movement types and across discourses in Chapter 5. First of all, the local grammars of the three movement types were compared with each other within the same discourse, e.g. the comparison of the local grammars of upward movement, downward movement and unspecified movement in the discourse of economics. Secondly, the local grammars of the same movement type were compared across discourses, e.g. the comparison of the local grammars of upward movement across the public relations discourse, the discourse of economics, corporate governance discourse, and accounting discourse. The comparison was conducted in terms of four aspects: frequency of phraseologies, constituent words of phraseologies, Local Grammatical Patterns, and semantic elements.

Three boundaries of co-texts were involved in the analysis. The first boundary of co-texts is the width for concordance lines, the default setting of which is "50 characters (i.e. approximately 12 words) either side of the centred word" (Greaves, 2009: 2). However, initial examination of the concordances suggested that the default width of the concordance lines was not enough to reveal complete patterns. The width was therefore extended to 100 characters either side of the centred word with the procedure

'Concordance >> Search settings >> Select the width for concordance strings from the list box' in order to have longer co-texts.

The second boundary of co-texts is the criterion of judging whether the constituent words in the concgrams are co-selected. As it has been discussed, concgrams are different from phraseologies in that concgrams only represent the co-occurrences of words, but the co-occurring words in the concgrams are not necessarily co-selected, i.e. they are not necessarily associated with each other (Cheng et al., 2008; Warren, 2009). The study of concordances would therefore enable the identification of the instances where the constituent words are associated with each other, i.e. the identification of phraseologies from the concgrams. The criterion of judging the associatedness of the co-occurring words was whether they occur in the same clause, for example, *decreased*, *per* and *cent* in "Salaries and other costs decreased by 3.7 per cent" (line 9 of *decreased/per/cent* in the discourse of economics), or the same unit smaller than a clause, e.g. *increase*, *per* and *cent* in "Profit before tax was HK$915 million - an increase of 41.9 per cent" (line 4 of *increase/per/cent* in public relations discourse). .

The third boundary of co-texts is the width of co-texts being studied for local grammatical pattern. The criterion was set to be the smallest unit that contains all the three constituent words of the phraseology, which can be a nominal group and a clause. For example, in "The increase of HK$3,018 million or 1.4% was mainly due to profit attributable to the Company's shareholders" (line 34 of *increase/HK$#/million* in the discourse of economics), the text being studied for local grammatical patterns is "the increase of HK$3,018 million or 1.4%", which belongs to the same nominal group. In the concordance line "Net earned insurance premiums decreased by 13 per cent to US$390 million, driven by lower credit related premiums in HSBC Finance due to declining loan volumes" (line 22 of *decreased/per/cent* in the discourse of economics), the text being studied for local grammatical patterns is "net earned insurance premiums decreased by 13 per cent to US$390 million", which belongs to the same clause.

3.3 Summary

In conclusion, the current corpus study analysed the self-compiled 1.5-million-word Corpus of Corporate Annual Reports (CCAR) with five sub-corpora of different discourse types. *ConcGram 1.0* was used to identify the potential concgrams to be studied. Concordance lines of the concgrams were examined to identify the phraseologies of movement. Local grammatical patterns of each movement type and each discourse type were then generated and compared.

Chapter 4 Findings and discussion

In this chapter, the phraseologies of movement of the five discourses in the Corpus of Corporate Annual Reports (CCAR) are analysed and discussed in terms of their local grammars. This study aims to study the local grammars of the five most frequently occurring three-word phraseologies of each of the four movement types, namely upward movement, downward movement, unspecified movement and no movement, in each of the five discourses, namely public relations discourse, discourse of economics, corporate governance discourse, accounting discourse and legal discourse. As introduced in Chapter 3, the cutoff frequency of phraseologies was set to be 10 in the discourses of public relations, economics, corporate governance and accounting, and 3 in legal discourse due to the small size of the this sub-corpus.

Analysis shows that in the public relations discourse, all the phraseologies of movement are in the category of upward movement. In the corporate governance discourse, phraseologies are identified in upward movement and unspecified movement. In the economics discourse and accounting discourse, phraseologies of upward movement, downward movement and unspecified movement are identified. In the legal discourse, although the cutoff of frequency was lowered to three, no phraseology of movement is observed. Since the legal discourse is composed of the disclaimers and warrants, which are concerned with the reliability of the other discourses rather than the performance of the corporation, it is understandable that no phraseology of 'movement' is identified in legal discourse. Across the five discourse-specific sub-corpora, no phraseology that indicates the meaning of no movement is observed. In total, 27 phraseologies of movement are identified from the CCAR for the study of local grammar, with some phraseologies identified in more than one discourse types.

The 27 phraseologies across movement types and across discourse types are shown below.

Phraseologies of upward movement in public relations discourse (N=65, 100%)			Freq.
1	increased	HK$#	million	29
2	increase	per	cent	13
3	increase	HK$#	million	12
4	development	Hong	Kong	11
Phraseology of downward movement in public relations discourse			0
Phraseology of unspecified movement in public relations discourse			0

Phraseologies of upward movement in the discourse of economics (N=399, 51%)			Freq.
1	increased	HK$#	million	104
2	increased	per	cent	91
3	rose	per	cent	85
4	increase	HK$#	million	65
5	increase	per	cent	54
Phraseologies of downward movement in the discourse of economics (N=204, 26%)			
1	fell	per	cent	55
2	declined	per	cent	49
3	decreased	HK$#	million	36
4	declined	US	billion	34

5	decreased	per	cent	30
Phraseologies of unspecified movement in the discourse of economics (N=174, 23%)				
1	changes	fair	value	74
2	movement	liabilities	net	40
3	change	fair	value	24
4	movements	fair	value	20
5	changes	income	interest	16

Phraseology of upward movement in corporate governance discourse (N=15, 60%)				Freq.
1	development	business	group	15
Phraseology of unspecified movement in corporate governance discourse (N=10, 40%)				
1	changes	equity	statement	10
Phraseology of downward movement in corporate governance discourse				0

Phraseologies of upward movement in the accounting discourse (N=81, 12%)				Freq.
1	increase	fair	value	40
2	increase	cash	equivalents	17
3	increase	HK$#	million	14
4	increased	HK$#	million	10
Phraseologies of downward movement in the accounting discourse (N=64, 10%)				
1	decline	fair	value	20
2	reduced	carrying	amount	14

3	decreases	amount	impairment	10
4	decrease	cash	flows	10
5	decrease	event	objectively	10
Phraseologies of unspecified movement in the accounting discourse (N=508, 78%)				
1	changes	fair	value	246
2	change	fair	value	98
3	changes	equity	statement	73
4	changes	income	statement	63
5	changes	interest	rates	28

4.1 Local grammars of phraseologies of movement in public relations discourse

Four phraseologies indicating the meaning of 'movement' have been identified in public relations discourse. They are *increased/HK$#/million*, *increase/per/cent*, *increase/HK$#/million*, and *development/Hong/Kong*. The four phraseologies all indicate the meaning of upward movement. It is in line with the findings of the studies including Rutherford (2005), Williams (2008), and Wang et al. (2012) that more positive words and 'up' words are used in CARs than negative and 'down' words, with the aim to create a positive image of the corporation. The concordance lines of each phraseology were analysed to find out its local grammatical patterns, configurations, and the relationship between grammar and linear lexical realizations.

4.1.1 *Increased/HK$#/million*

In the case of *increased/HK$#/million*, 29 co-selections are found in 22 concordance lines, with four local grammatical patterns identified in 17 of the 22 lines analysed

(77.27%) (Table 4.1a). A detailed description of the patterns and linguistic realizations is found in Appendix 1.

Table 4.1a Four local grammatical patterns of *increased/HK$#/million* in public relations discourse

	n	v	prep	num			prep	num			
	the thing that moves	movement	hinge	amount of move-ment			hinge	amount after move-ment			10 58.82 %
1	*Group turnover for 2009*	*increased*	*by*	*10%*			*to*	*HK$17, 553 million*			
	n	v	prep	num			prep	num	prep	n	
	the thing that moves	movement	hinge	amount of move-ment			hinge	amount after move-ment	hinge	time after move-ment	3 17.65 %
2	*net assets employ-ed by the Aviation Division*	*increased*	*by*	*HK$4,6 38 million*			*to*	*HK$21, 654 million*	*at*	*31ˢᵗ Decem-ber 2009*	
	n	v		num			prep	num			
	the thing that moves	movement		amount of move-ment			hinge	amount after move-ment			2 11.76 %
3	*profit attribut-able to equity holders*	*increased*		*14.8%*			*to*	*HK$54 7.3 million*			
	n	v	prep	num	prep	n	prep	num			
	the thing that moves	movement	hinge	amount of move-ment	hinge	time of move ment	hinge	amount after move-ment			2 11.76 %
4	*net debt*	*increased*	*by*	*HK$1,2 35 million*	*Dur-ing*	*the year*	*to*	*HK$31, 681 million*			

Two amounts are involved in each of the four local grammatical patterns, namely 'amount before movement' (n.) and 'amount after movement' (num.), with the 'movement' (v.) realized by *increased*.

Based on Cheng et al. (2008), local grammatical pattern 1 *the thing that moves* (n.) + *movement* (v.) + *hinge* (prep.) + *amount of movement* (num.) + *hinge* (prep.) + *amount after movement* (num.) is the canonical local grammatical pattern of the phraseology due to its highest frequency (N=10, 58.82%). The 'amount of movement', represented by *#%* (N=5, 29.41%), *# per cent* (N=2, 11.76%), *HK$# million* (N=2, 11.76%), or *a total of #%* (N=1, 5.88%), is connected to the 'movement' by the 'hinge' (prep.) *by*; the 'amount after movement', realized by *HK$# million*, is preceded by the 'hinge' (prep.) *to*, e.g. "Profit before tax increased by 7.1% to HK$5,915 million" (line 23) and "Underlying attributable profit, which principally excludes the effect of valuation gains on investment properties and the associated deferred tax, increased by HK$3,237 million to HK$8,475 million" (line 13). It is similar to the pattern "V *by* amount" identified by Francis, Hunston & Manning (1996: 173), who clarified that the verbs in this pattern are concerned with 'increase' and 'decrease'. The prepositional phrase indicates "the size of the increase or decrease" (ibid.: 173), which is similar to the 'amount of movement' in the current study. 'The amount after movement', however, is not specified in Francis et al.'s (1996) verb pattern.

Pattern 2 (N=3, 17.65%) has 'hinge (prep.) + time after movement (n.)' in the form of *at 31st December 2009* added to the canonical pattern, with both amounts realized by *HK$# million*, e.g. "Net assets employed by the Aviation Division increased by HK$4,638 million to HK$21,654 million at 31st December 2009" (line 18).

In pattern 3 (N=2, 11.76%), the 'hinge' (prep.) *by* connecting 'movement' (v.) and 'amount of movement' (num.) is omitted from the canonical local grammatical pattern, e.g. "profit attributable to share holders increased 103% to HK$468 million" (line 21). This pattern is similar to the "V amount" pattern in Francis et al. (1996: 72), with the verbs concerned with "changes in value, amount, or degree". No preposition exists

between the verb and the amount. The 'amount after movement' in the current study is not included in Francis et al. (1996).

Pattern 4 (N=2, 11.76%) has 'hinge (prep.) + time of movement (n.)' added after the 'amount of movement' (num.), e.g. "Despite strong operating cash flows, net debt increased by HK$1,235 million during the year to HK$31,681 million" (line 14).

Three main configurations of the linguistic forms of *increased/HK$#/million* are identified, as below:

1) *increased … HK$# million* (N=12, 54.55%)

a. *increased by #% to HK$# million* (N=5, 22.73%), e.g. "Profit before tax increased by 7.1% to HK$5,915 million" (line 23)

b. *increased #% to HK$# million* (N=2, 9.09%), e.g. "Profit attributable to equity holders increased 14.8% to HK$547.3 million" (line 4)

c. *increased by # per cent to HK$# million* (N=2, 9.09%), e.g. "Net rental income increased by 21 per cent to HK$7,271 million" (line 9)

d. *increased by HK$# million* (N=1, 4.55%), as in "underlying profit increased by HK$4,909 million" (line 30)

e. *increased by #% year-on-year to HK$# million* (N=1, 4.55%), as in "The Group's net operating income before impairment allowances increased by 2.1% year-on-year to HK$26,055 million as a result of higher net fees and commission income" (line 26)

f. *increased by a total of #% to HK$# million* (N=1, 4.55%), as in "Total deposits from customers increased by a total of 4.1% to HK$844,453 million and the deposit mix also improved" (line 6)

2) *increased … HK$# million … HK$# million* (N=8, 36.36%)

a. *increased by HK$# million to HK$# million* (N=5, 22.73%), e.g. "Division increased by HK$452 million to HK$7,882 million at 31st December 2009" (line 19)

b. *increased by HK$# million during 2009 to HK$# million* (N=1, 4.55%), as in "The Group's total net assets employed increased by HK$18,396 million during 2009 to HK$185,030 million" (line 15)

c. *increased by HK$# million during the year to HK$# million* (N=1, 4.55%), as in "Despite strong operating cash flows, net debt increased by HK$1,235 million during the year to HK$31,681 million" (line 14)

d. *increased from HK$# million * * * * * * * * * * to HK$# million* (N=1, 4.55%), as in "Net rental income also increased from HK$2,550 million for the twelve months of the previous financial year to HK$4,262 million" (line 20)

3) *increased ... HK$ ... million ... HK$* (N=2, 9.09%)

a. *increased #% to HK$# million and HK$#* (N=1, 4.55%), as in "Profit attributable to shareholders and earnings per share increased 12% to HK$14,168 million and HK$3.32 respectively" (line 2)

b. *increased by #% year-on-year to HK$# million or HK$#* (N=1, 4.55%), as in "The Group's profit attributable to shareholders increased by 310.6% year-on-year to HK$13,725 million or HK$1.2981 per share" (line 27)

The four local grammatical patterns of *increased/HK$#/million* are mapped onto the three configurations (Table 4.1b).

Table 4.1b Local grammatical patterns and configurations of *increased/HK$#/million*

Pattern	Configuration	Conf number	Freq	Total freq
1	*increased by #% to HK$# million*	1a	5 29.41%	10 58.82%
	increased by # per cent to HK$# million	1c	2 11.76%	
	increased by HK$# million to HK$# million	2a	2 11.76%	
	increased by a total of #% to HK$# million	1f	1 5.88%	
2	*increased by HK$# million to HK$# million*	2a	3 17.65%	3 17.65%
3	*increased #% to HK$# million*	1b	2 11.76%	2 11.76%
4	*increased by HK$# million during 2009 to HK$# million*	2b	1 5.88%	2 11.76%
	increased by HK$# million during the year to HK$# million	2c	1 5.88%	

Local grammatical pattern 1 (N=10, 58.82%) is found in configurations 1a (N=5, 29.41%), 1c (N=2, 11.76%), 2a (N=2, 11.76%), and 1f (N=1, 5.88%), which all start with *increased by* and end with *to HK$# million*. The difference of these configurations lies in the linguistic forms of the intervening numeral group, which is realized by *#%* (N=5, 29.41%, 1a), *# per cent* (N=2, 11.76%, 1c), *HK$# million* (N=2, 11.76%, 2a), and *a total of #%* (N=1, 5.88%, 1f), e.g. "Group turnover for 2009 increased by 10% to HK$17,553 million" (line 22) and "net rental income increased by 21 per cent to HK$7,271 million" (line 9).

Pattern 2 (N=3, 17.65%) is found in configuration 2a, with the 'amount of movement' (num.) and 'amount after movement' (num.) both realized by *HK$# million*. Compared to pattern 1, it has 'hinge (prep.) + time after movement (n.)' in the form of *at 31st December 2009* added to the end, e.g. "Net assets employed by the Beverages Division increased by HK$530 million to HK$4,573 million at 31st December 2009" (line 17).

Pattern 3 (N=2, 11.76%) is found in configuration 1b, with *#%* representing the 'amount of movement' (num.) and *HK$# million* representing the 'amount after movement' (num.), e.g. "Profit attributable to shareholders increased 14.8% to HK$547.3 million" (line 4).

Pattern 4 (N=2, 11.76%) is found in configurations 2b and 2c, in which 'hinge (prep.) + time of movement (n.)' in the form of *during 2009* or *during the year* is inserted after the 'amount of movement' in the form of *HK$#million*, as in "The Group's total net assets employed increased by HK$18,396 million during 2009 to HK$185,030 million" (line 15, configuration 2b) and "Despite strong operating cash flows, net debt increased by HK$1,235 million during the year to HK$31,681 million" (line 14, configuration 2c.)

The three main configurations of *increased/HK$#/million* are then mapped onto the four local grammatical patterns (Table 4.1c).

Table 4.1c Configurations and local grammatical patterns of *increased/HK$#/million*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*increased by #% to HK$# million*	5 22.73%	pattern 1	5 22.73%
1b	*increased #% to HK$# million*	2 9.09%	pattern 3	2 9.09%
1c	*increased by # per cent to HK$# million*	2 9.09%	pattern 1	2 9.09%
1d	*increased by HK$# million*	1 4.55%	unclassified	1 4.55%
1e	*increased by #% year-on-year to HK$# million*	1 4.55%	unclassified	1 4.55%
1f	*increased by a total of #% to HK$# million*	1 4.55%	pattern 1	1 4.55%
2a	*increased by HK$# million to HK$# million*	3 13.64%	pattern 2	5 22.73%
		2 9.09%	pattern 1	
2b	*increased by HK$# million during 2009 to HK$# million*	1 4.55%	pattern 4	1 4.55%

2c	*increased by HK$# million during the year to HK$# million*	1 4.55%	pattern 4	1 4.55%
2d	*increased from HK$# million * * * * * * * * * to HK$# million*	1 4.55%	unclassified	1 4.55%
3a	*increased #% to HK$# million and HK$#*	1 4.55%	unclassified	1 4.55%
3b	*increased by #% year-on-year to HK$# million or HK$#*	1 4.55%	unclassified	1 4.55%

Each of the configurations is realized in one local grammatical pattern, except for configuration 2a, which is realized in patterns 2 and 1 with the difference in the co-selection of 'hinge (prep.) + time after movement (n.)', and a few other configurations that are not classified into grammatical patterns due to their unique grammatical features.

4.1.2 *Increase/per/cent*

In the case of *increase/per/cent*, 19 co-occurrences are found in 13 concordance lines and 13 co-selections in 12 concordance lines, with only one local grammatical pattern identified in 6 of the 12 lines analysed (50%) (Table 4.2a). A detailed description of the patterns and linguistic realizations is found in Appendix 2.

Table 4.2a One local grammatical pattern of *increase/per/cent* in public relations discourse

	n	prep	num	prep	n	
1	movement	hinge	amount of movement	hinge	time before movement	6 100%
	an increase	*of*	*31 per cent*	*over*	*2008*	

In all the 6 instances (100%), the 'movement' (n.), represented by *an increase*, is connected to the 'amount of movement' (num.) in the form of *# per cent* by the 'hinge' (prep.) *of*. The 'time before movement' in the form of *2008* (N=3, 50%) or *last year* (N=3, 50%) is connected to the 'amount of movement' (num.) by the 'hinge' (prep.) *over* (N=4, 66.67%) or *from* (N=2, 33.33%), e.g. "an increase of 31 per cent over 2008" (line 2) and "an increase of two per cent from last year" (line 13). It is similar to

the pattern "N *of* amount" identified in Francis, Hunston & Manning (1998: 185), with the 'N' represented by *increase* in the current study. Francis et al. (1998) classified the nouns in this pattern into the 'magnitude' group, meaning that they can be expressed as an amount. In the local grammatical pattern in the current study, 'time before movement' is included to specify the period being compared.

Three main configurations of the linguistic forms of *increase/per/cent* are identified in the 12 concordance lines, as follows:

1) *increase ... per cent* (N=8, 66.67%)

   increase of # per cent (N=8, 66.67%), e.g. "Underlying earnings per share were HK$4.84, an increase of one per cent from last year" (line 3)

2) *per cent ... increase* (N=3, 25%)

   a. *# per cent increase* (N=2, 16.67%), e.g. "Corporate Banking achieved a 20.1 per cent increase in operating profit excluding loan impairment charges to HK$979 million" (line 7)

   b. *# per cent * increase* (N=1, 8.33%), as in "In 2009, there was an approximately 2.5 per cent average increase in remuneration over 2008" (line 6)

3) *per cent ... increase ... per cent* (N=1, 8.33%)

   *# per cent * increase * * * * * * * # per cent* (N=1, 8.33%), as in "drove an 18.3 per cent year-on-year increase in the Mainland customer base and a 35.9 per cent rise in deposits" (line 5)

Since there is only one grammatical pattern in the occurrences of the phraseology *increase/per/cent*, the relation between local grammatical pattern and configuration is

not presented in tables. All the 6 instances of the pattern share the first configuration *increase * # per cent*. The two words inserted between *increase* and *per cent* are the preposition *of* and a numeral, which represents the 'amount of movement' together with *per cent*. The preposition *of* is the 'hinge' connecting 'movement' and the 'amount of movement'. Each of the other configurations has its grammatical feature, and therefore does not belong to any pattern. It is due to both the infrequency of occurrence and the small size of the data.

4.1.3 *Increase/HK$#/million*

In the case of *increase/HK$#/million*, 12 co-selections are found in 11 concordance lines, with three local grammatical patterns identified in 9 of the 11 lines analysed (81.82%) (Table 4.3a). A detailed description of the patterns and linguistic realizations is found in Appendix 3.

Table 4.3a Three local grammatical patterns of *increase/HK$#/million* in public relations discourse

	n		prep	num		num/n	
1	movement		hinge	amount of movement			4 44.44%
	an increase		*of*	*HK$872.5 million*			
	n		prep	num	prep	num/n	
2	movement		hinge	amount of movement	hinge	amount before movement	3 33.33%
	an increase		*of*	*81 per cent*	*from*	*last year's HK$14,151 million*	
	num	n	prep	n	prep	num	
3	amount of movement	movement	hinge	the thing that moves	hinge	the amount after movement	2 22.22%
	a 10%	*increase*	*in*	*recurring profit*	*to*	*HK$5,313 million*	

In the three local grammatical patterns, *increase* is the only word representing 'movement' (n.). Pattern 1 *movement* (n.) + *hinge* (prep.) + *amount of movement* (num.) is the canonical local grammatical pattern of the phraseology (N=4, 44.44%), with the 'amount of movement' (num.), represented by *HK$# million* (N=3, 33.33%)

or *HK$# million, or #%* (N=1, 11.11%), connected to the 'movement' (n.) by the 'hinge' (prep.) *of*, e.g. "an increase of HK$872.5 million compared to 2008" (line 30) and "representing an increase of HK$2,534 million, or 2,445.1%, compared to the HK$104 million earned in 2008" (line 21). Although comparisons with last year also occur in the concordance lines, such as *compared to 2008* and *compared to the HK$104 million earned in 2008* in the above examples, they do not occur in the same clause with *increase* and *HK$# million*, so that they are not included in the grammatical pattern. This pattern is labeled as 'N *of* amount' by Francis et al. (1998), with the 'N' represented by *increase* and the 'amount' specified as 'amount of movement' in the current study.

Pattern 2 (N=3, 33.33%) has 'hinge (prep.) + amount before movement (num/n)' added to the canonical local grammatical pattern, e.g. "an increase of 81 per cent from last year's HK$14,151 million" (line 12). It is similar to the 'N of amount' pattern (Francis et al., 1998), but has an additional amount, i.e. the amount before movement, specified.

In pattern 3 (N=2, 22.22%), the sequence of 'movement' (n.) and 'amount of movement' (num.) is changed and 'the thing that moves' (n.) is included, e.g. "a 10% increase in recurring profit to HK$5,313 million" (line 35). This pattern was not identified in the description of the grammar patterns of nouns by Francis et al. (1998). It may be a unique feature of corporate annual reports.

Two main configurations of the linguistic forms of *increase/HK$#/million* are identified, as below:

1) *increase … HK$# million* (N=10, 90.91%)

a. *an increase of HK$# million* (N=5, 45.45%), e.g. "an increase of HK$18,828 million over the position at the end of 2008" (line 29)

b. *a #% increase in * * to HK$# million* (N=1, 9.09%), as in "a 10% increase in recurring profit to HK$5,313 million" (line 35)

c. *an #% increase over * * * of HK$# million* (N=1, 9.09%), as in "an 8% increase over the 2008 profit of HK$3,675 million" (line 26)

d. *a mild increase in * * * * * * * to HK$# million* (N=1, 9.09%), as in "the Group reported a mild increase in net operating income before impairment allowances to HK$26,055 million" (line 36)

e. *an increase of # per cent from * * HK$# million* (N=1, 9.09%), as in "an increase of 81 per cent from last year's HK$14,151 million" (line 12)

f. *a # per cent increase in * * * * * * to HK$# million* (N=1, 9.09%), as in "Corporate Banking achieved a 20.1 per cent increase in operating profit excluding loan impairment charges to HK$979 million" (line 37)

2) *increase … HK$# million … HK$# million* (N=1, 9.09%)

an increase of HK$# million or #% over HK$# million, as in "representing an increase of HK$380 million or 7% over HK$5,708 million (restated) for the twelve months ended 30 June 2008" (line 19)

The three local grammatical patterns of *increase/HK$#/million* are mapped onto the two configurations (Table 4.3b).

Table 4.3b Local grammatical patterns and configurations of *increase/HK$#/million*

Pattern	Configuration	Conf number	Freq	Total freq
1	*an increase of HK$# million*	1a	4 44.44%	4 44.44%
2	*an increase of HK$# million or #%*	2	1	3

	over HK$# million		11.11%	33.33%
	*an increase of # per cent from * * HK$# million*	1e	1 11.11%	
	an increase of HK$# million	1a	1 11.11%	
3	*a #% increase in * * to HK$# million*	1b	1 11.11%	2 22.22%
	*a # per cent increase in * * * * * * to HK$# million*	1f	1 11.11%	

The two configurations of *increase/HK$#/million* are then mapped onto the three local grammatical patterns (Table 4.3c).

Table 4.3c Configurations and local grammatical patterns of *increase/HK$#/million*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*an increase of HK$# million*	4 36.36%	pattern 1	5 45.45%
		1 9.09%	pattern 2	
1b	*a #% increase in * * to HK$# million*	1 9.09%	pattern 3	1 9.09%
1c	*an #% increase over * * * of HK$# million*	1 9.09%	unclassified	1 9.09%
1d	*a mild increase in * * * * * * to HK$# million*	1 9.09%	unclassified	1 9.09%
1e	*an increase of # per cent from * * HK$# million*	1 9.09%	pattern 2	1 9.09%
1f	*a # per cent increase in * * * * * * to HK$# million*	1 9.09%	pattern 3	1 9.09%
2	*an increase of HK$# million or #% over HK$# million*	1 9.09%	pattern 2	1 9.09%

Configuration 1a *an increase of HK$# million* is realized in patterns 1 and 2, with the difference in the co-selection of 'hinge (prep.) + amount before movement (num/n)', e.g. "representing an increase of HK$2,534 million, or 2,445.1%" (line 21, pattern 1) and "an increase of HK$18,828 million over the position at the end of 2008" (line 29, pattern 2).

Each of the other configurations is realized in only one local grammatical pattern, except for configurations 1c and 1d, which are not classified into local grammatical patterns due to their unique grammatical features, attributable to the infrequency their occurrences and the restriction of data size.

4.1.4 *Development/Hong/Kong*

In the case of *development/Hong/Kong*, 52 co-occurrences are found in 42 concordance lines and 11 co-selections in 11 concordance lines. Three local grammatical patterns are identified in 8 of the 11 lines analysed (72.73%) (Table 4.4a). A detailed description of the patterns and linguistic realizations is found in Appendix 4.

Table 4.4a Three local grammatical patterns of *development/Hong/Kong* in public relations discourse

1		n	prep	n	prep	n	
		movement	hinge	the thing that moves	hinge	place of movement	3 37.5%
		the development	*of*	*RMB bond business*	*in*	*Hong Kong*	
2	n/adj	n			prep	n	
	the thing that moves	movement			hinge	place of movement	3 37.5%
	the economic and social	*development*			*of*	*Mainland China and Hong Kong*	
3	adj	n	prep	n	prep	n	
	modifier of the movement	movement	hinge	the thing that moves	hinge	place of movement	2 25%
	the sustainable	*development*	*of*	*its various businesses*	*in*	*Hong Kong and the Mainland*	

Local grammatical patterns 1 and 2 have the same frequency (N=3, 37.5%), with a difference in the sequence of 'the thing that moves' and 'movement'. They are considered to be the canonical local grammatical patterns due to the highest frequency. In pattern 1, 'the thing that moves' is connected to the 'movement' (n.) by the 'hinge'

(prep.) *of*; while in patter 2, it directly precedes the 'movement' (n.), e.g. "laid a solid foundation for the Group in the development of RMB bond business in Hong Kong" (line 22, pattern 1), and "To support sports development in Hong Kong, BOCHK donated HK\$10 million to the Sports Federation" (line 12, pattern 2).

Pattern 1 can be regarded as an expansion of the pattern 'N *of* n' identified by Francis et al. (1998), in which the word *development* was classified into the 'rise' and 'fall' group of nouns represented by 'N'. In pattern 1, 'place of movement' is added to provide further information. Pattern 2 was not identified in the patterns of *development* by Francis et al. (1998). It is therefore considered to be a marked usage.

Pattern 3 (N=2, 25%) is derived from pattern 1 with 'modifier of the movement' (adj.) added to the beginning, e.g. "the sustainable development of its various businesses in Hong Kong and the Mainland" (line 25). It can be considered to be a combination of the patterns 'adj N' and 'N *of* n' in Francis et al. (1998).

In all the 11 instances, *development*, *Hong* and *Kong* occur in the position of *development ... Hong Kong* (100%). Five configurations of the linguistic forms are identified in the 11 concordance lines, as follows:

1) *development of * * * in Hong Kong* (N=5, 45.45%), e.g. "laid a solid foundation for the Group in the development of RMB bond business in Hong Kong" (line 22)

2) *development * Hong Kong* (N=3, 27.27%), e.g. "To support sports development in Hong Kong, BOCHK denoted HK\$10 million to the Sports Federation and the Olympic Committee" (line 12)

3) *development * * * * Hong Kong* (N=1, 9.09%), as in "contributed substantially to the economic and social development of Mainland China and Hong Kong" (line 21)

4) *development* * * * * * * * * * * *Hong Kong* (N=1, 9.09%), as in "The Mainland's development and steady growth will continue to provide solid support for Hong Kong's economy" (line 37)

5) *development* * * * * * * * * * * * *Hong Kong* (N=1, 9.09%), as in "The stable development of small and medium-sized enterprises (SME) is an important pillar of the Hong Kong economy" (line 10)

The constituent words of the phraseology, namely *development*, *Hong* and *Kong*, occur in the same noun group in each of the instances in the first three configurations (N=9, 81.82%), e.g. "To support the development of electric vehicles (EVs) in Hong Kong to reduce roadside emissions" (line 27). The fourth and fifth configurations occur in different noun groups within a clause, e.g. "The Mainland's development and steady growth will continue to provide solid support for Hong Kong's economy" (line 37).

The three local grammatical patterns of *development/Hong/Kong* are mapped onto the five configurations (Table 4.4b).

Table 4.4b Local grammatical patterns and configurations of *development/Hong/Kong*

Pattern	Configuration	Conf number	Freq	Total freq
1	*development of * * * in Hong Kong*	1	3 37.5%	3 37.5%
2	*development * Hong Kong*	2	2 25%	3 37.5%
	*development * * * * Hong Kong*	3	1 12.5%	
3	*development of * * * in Hong Kong*	1	2 25%	2 25%

All the 3 instances (37.5%) in patterns 1 are found in the first configuration *development of * * * in Hong Kong*, with the three asterisks representing 'the things that move' (n.), e.g. "laid a solid foundation for the Group in the development of RMB bond business in Hong Kong" (line 22).

Two instances in pattern 2 (25%) are found in configuration 2 *development * Hong Kong* with a preposition between *development and Hong Kong*, e.g. "To support sports development in Hong Kong, BOCHK donated HK$10 million" (line 12); one instance (12.5%) is found in configuration 3 *development * * * * Hong Kong* with four words in between, which are *of Mainland China and*, as in "and contributed substantially to the economic and social development of Mainland China and Hong Kong" (line 21).

Pattern 3 (N=2, 25%) is found in configuration 1, with the asterisks representing 'the thing that moves' (n.), e.g. "the sustainable development of its various businesses in Hong Kong and the mainland" (line 25).

The five configurations of *development/Hong/Kong* are then mapped onto the three local grammatical patterns (Table 4.4c).

Table 4.4c Configurations and local grammatical patterns of *development/Hong/Kong*

Conf no.	Configuration	Freq	Pattern	Total freq
1	*development of * * * in Hong Kong*	3 27.27%	pattern 1	5 45.45%
		2 18.18%	pattern 3	
2	*development * Hong Kong*	2 18.18%	pattern 2	3 27.27%
		1 9.09%	unclassified	
3	*development * * * * Hong Kong*	1 9.09%	pattern 2	1 9.09%
4	*development * * * * * * * * * Hong Kong*	1 9.09%	unclassified	1 9.09%
5	*development * * * * * * * * * * * Hong Kong*	1 9.09%	unclassified	1 9.09%

Configuration 1 (N=5, 45.45%) is found in patterns 1 (N=3, 27.27%) and 3 (N=2, 18.18%), with the difference in whether the 'movement' (n.) is qualified by a 'modifier' (pattern 3), e.g. "for the sustainable development of its various businesses in

Hong Kong and the mainland" (line 25, pattern 3) and "To support the development of electric vehicles (EVs) in Hong Kong to reduce roadside emissions" (line 27).

Configuration 2 (N=3, 27.27%) is found in pattern 2 (N=2, 18.18%), with the preposition *in* or *for* between *development* and *Hong Kong*, as in "To support sports development in Hong Kong" (line 12) and "as well as the organization development for Hong Kong and mainland projects" (line 14).

Configuration 3 (N=1, 9.09%) is also found in pattern 2, with *of Mainland China and* as inserting words. *Mainland China and Hong Kong* represents 'places of movement' (n.), and *of* functions as the 'hinge' (prep.) connecting 'movement' (n.) and 'places of movement' (n.), as in "the economic and social development of Mainland China and Hong Kong" (line 21).

The other few instances are not classified because each of them has its unique grammatical form, and therefore does not belong to any pattern. This is due to the infrequent occurrence and the small data size.

4.2 Local Grammar of upward movement in public relations discourse

In the 3-word concgram list of the sub-corpus of public relations discourse, only five concgrams indicating upward movement and one concgram indicating downward movement were observed. The occurrences of *decrease*, *year* and *tonnes* were found to be unassociated; those of *development/long/term* were found to be the two-word concgram *development/long-term*. The study therefore only includes four phraseologies of upward movement, which are *increased/HK$#/million*, *increase/per/cent*, *increase/HK$#/million*, and *development/Hong/Kong*.

The eleven local grammatical patterns of the four phraseologies indicating upward movement in public relations discourse are presented in Appendix 4.36A.

Eleven local grammatical patterns are identified in the four phraseologies of upward movement in public relations discourse. Pattern 1 'the thing that moves (n.) + movement (v.) + hinge (prep.) + amount of movement (num.) + hinge (prep.) + amount after movement (num.)' is the canonical local grammatical pattern of the phraseologies of upward movement in public relations discourse due to its highest frequency (N=10, 25.64%). The variants vary from the canonical pattern, in ascending order of the degree of turbulence, with some semantic elements added (patterns 7, 11) or deleted (patterns 4, 10), some semantic elements added and some others deleted (patterns 2, 3, 6), the sequence changed (pattern 8), and the sequence changed and some semantic elements added and some others deleted (patterns 5, 9). The change of sequence only occurs in the instances where the words indicating 'movement' are nouns, which are different from the canonical pattern where the word indicating 'movement' is verb.

The relationship between pattern and phraseology is shown in Table 4.36B.

Table 4.36A Distribution of each local grammatical pattern across phraseologies of upward movement in public relations discourse

pattern	*increased/HK$# /million* (N=29)	*increase/per/ cent* (N=13)	*increase/HK$#/ million* (N=13)	*development/Hong /Kong* (N=11)
pattern 1 (N=10, 25.64%)	√			
pattern 2 (N=6, 15.38%)		√		
pattern 3 (N=3, 7.69%)			√	
pattern 4 (N=3, 7.69%)			√	
pattern 5 (N=3, 7.69%)				√
pattern 6 (N=3, 7.69%)				√
pattern 7 (N=3, 7.69%)	√			
pattern 8 (N=2, 5.13%)			√	
pattern 9				√

(N=2, 5.13%)				
pattern 10 (N=2, 5.13%)	√			
pattern 11 (N=2, 5.13%)	√			

Table 4.36B shows that each of the phraseologies has its own unique local grammatical patterns. The uniqueness of the patterns may be attributable to the relatively low frequencies of the phraseologies, ranging from 11 to 29 with the median being 13. The phraseology *increased/HK$#/million* occurs in four local grammatical patterns, *increase/HK$#/million* and *development/Hong/Kong* occur in three local grammatical patterns, and *increase/per/cent* occurs in one local grammatical pattern. The diversity of the local grammatical patterns of *increased/HK$#/million* can be interpreted by its highest frequency (N=29), which doubles the frequency of each of the other three phraseologies.

The similarities in the sequence and constitution of some patterns suggest that the eleven patterns can be further grouped into five Local Grammatical Patterns, which are shown in Appendix 4.36C.

The original local grammatical patterns 1, 7, 10 and 11 are combined into Local Grammatical Pattern 1 (N=17, 43.59%), where the 'movement' is represented by the verb *increased*. In Pattern 1, 'the thing that moves', 'movement', 'amount of movement', and 'amount after movement' are clearly specified. They are obligatory semantic elements. Two other semantic elements, namely 'time of movement' and 'time after movement', only occur in some of the instances, and are therefore regarded as optional semantic elements.

The original local grammatical patterns 2, 3 and 4 are combined into Local Grammatical Pattern 2 (N=12, 30.77%), the instances of which all constitute nominal groups, with the 'movement' realised by the noun *increase*. In Pattern 2, 'the thing that moves' is not specified within the nominal group, e.g. "For the year 2009, the BEA

Group recorded a profit after tax of HK$2,638 million, representing an increase of HK$2,534 million, or 2,445.1%, compared to the HK$104 million earned in 2008." (line 22 of *increase/HK$#/million*). In this example, 'the thing that moves' represented by *profit after tax* is specified beyond the nominal group 'an increase of HK$2,534 million', and is therefore not included in the pattern. 'Movement', 'hinge' and 'amount of movement' are the obligatory semantic elements of Pattern 2. In some instances, the second 'hinge' plus 'time before movement' or 'amount before movement' are added for comparison.

The original patterns 5 and 9 are combined into Local Grammatical Pattern 3 (N=5, 12.82%) because they share the elements of 'movement + hinge + the thing that moves + hinge + place of movement'. The 'movement' in Pattern 3 is realised by the noun *development*. The optional semantic element of Pattern 3 is 'modifier of movement'.

The original pattern 6 becomes Local Grammatical Pattern 4 (N=3, 7.69%), and it is not combined with others. The same situation occurs in the original pattern 8, which becomes Local Grammatical Pattern 5 (N=2, 5.13%).

Although each of the phraseologies has its own unique semantic pattern, some of them share certain semantic elements. The semantic elements of the phraseologies are presented in Table 4.36D.

Table 4.36B Distribution of semantic elements across phraseologies of upward movement in public relations discourse

	semantic element	*increased/HK$#/ million* (N=29)	*increase/per /cent* (N=13)	*increase/HK$#/ million* (N=13)	*development/ Hong/Kong* (N=11)
1	movement	√	√	√	√
2	hinge	√	√	√	√
3	the thing that moves	√		√	√
4	amount of movement	√	√	√	
5	amount after movement	√		√	

6	time of movement				√
7	place of movement				√
8	modifier of movement				√
9	time after movement	√			
10	time before movement		√		
11	amount before movement			√	

The semantic elements of 'movement' and 'hinge' are shared by all the twelve semantic patterns of the four phraseologies. The semantic element of 'the thing that moves' is shared by *increased/HK$#/million*, *increase/HK$#/million*, and *development/Hong/Kong*, but not *increase/per/cent*. 'Amount of movement' is shared by *increased/HK$#/million*, *increase/per/cent* and *increase/HK$#/million*, but not *development/Hong/Kong*. The semantic element of 'amount after movement' is shared by *increased/HK$#/million* and *increase/HK$#/million*. *Development/Hong/Kong* has its unique semantic element of 'time of movement', 'place of movement' and 'modifier of movement'. *Increased/HK$#/million*, *increase/per/cent* and *increase/HK$#/million* have their unique semantic elements of 'time after movement', 'time before movement' and 'amount before movement' respectively.

In conclusion, *increased/HK$#/million* and *increase/HK$#/million* are the most similar phraseologies of movement in the public relations discourse with five common semantic elements, namely 'movement', 'hinge', 'the thing that moves', 'amount of movement' and 'amount after movement'. *Development/Hong/Kong* is the most different phraseology by having three unique semantic elements and not having any semantic element associated with amount.

4.3 Local grammars of phraseologies of movement in the discourse of economics

In the discourse of economics, phraseologies of three movement types, namely upward movement, downward movement, and unspecified movement, have been identified. The five most frequent phraseologies in each movement type are selected for study.

4.3.1 Phraseologies of upward movement in the discourse of economics

The most frequent five three-word phraseologies indicating the meaning of upward movement in the discourse of economics are *increased/HK$#/million*, *increased/per/cent*, *rose/per/cent*, *increase/HK$#/million*, and *increase/per/cent*. For each phraseology, up to 40 concordance lines were randomly selected and analysed to find out its local grammatical patterns, configurations of linguistic forms, and the relationship between grammar and linguistic form.

4.3.1.1 *Increased/HK$#/million*

In the case of *increased/HK$#/million*, 164 co-occurrences are found in 102 concordance lines and 104 co-selections in 84 concordance lines. Three local grammatical patterns are identified in the 33 of the 40 lines analysed (82.5%) (Table 4.5a). A detailed description of the patterns and linguistic realizations is found in Appendix 5.

Table 4.5a Three local grammatical patterns of *increased/HK$#/million* in the discourse of economics

	n	v	prep	num	prep	num	
1	the thing that moves	movement	hinge	amount of movement			15 45.45%
	total investment and insurance income	*increased*	*by*	*HK$536 million, or 25.8%*			
2	n	v	prep	num	prep	num	15
	the thing that	movement	hinge	amount of	hinge	amount after	45.45%

	moves			movement		movement	
	the Group's total equity	*increased*	*by*	*15%*	*to*	*HK$122,164 million*	
	n	v		num	prep	num	
3	the thing that moves	movement		amount of movement	hinge	amount after movement	3 9.09%
	total revenue	*increased*		*33%*	*to*	*HK$13,912 million*	

All the three local gra

mmatical patterns start with 'the thing that moves' (n.), followed by 'movement' (v.). In pattern 1 (N=15, 45.45%), the 'movement' (v.), represented by *increased* (39.39%) or *would have increased* (9.09%), is connected to the 'amount of movement' (num.) in the forms of *HK$# million or #%* (18.18%), *HK$# million, or #%* (12.12%), *HK$# million* (9.09%), *HK$# million (#%)* (6.06%), or *HK$# million, or # per cent* (3.03%) by the 'hinge' (prep.) *by*, e.g. "Income from securities, derivatives and other trading activities increased by HK$60 million, or 84.5 per cent" (line 34), "total liabilities would have increased by HK$3,261 million or 0.9%" (line 21), "Compared to the first half of 2009, total investment and insurance income increased by HK$536 million, or 25.8%" (line 36), and "The net gain on the disposal of assets held for sale increased by HK$187 million" (line 11). It is very similar to the 'V *by* amount' pattern in Francis et al. (1996), with the 'amount' representing "the size of the increase or decrease" (ibid.: 173), which is similar to 'the amount of movement' in the current study.

In pattern 1, the 'amount of movement' (num.) is the only amount involved in the pattern. While in patterns 2 and 3, there is also the 'amount after movement' (num.).

Pattern 2 (N=15, 45.45%) has 'hinge (prep.) + amount after movement (num.)' added to the end of pattern 1. In this pattern, the 'movement' (v.) is represented by *increased*; the 'amount of movement' (num.) is represented by *#%* (24.24%), *HK$# million, or #%* (9.09%), *# per cent* (6.06%), *HK$# million or #%* (3.03%), or *HK$# million* (3.03%); and the 'amount after movement' (num.) is represented by *HK$# million* (42.42%) or *# million* (3.03%), e.g. "Wharf T&T's operating profit increased by 52% to HK$213 million" (line 18), "Treasury's profit before tax increased by 48.9 per cent to HK$3,393 million" (line 28), and "In 2009, the Group's net operating income

before impairment allowances increased by HK$529 million, or 2.1%, to HK$26,055 million" (line 56). Compared with the 'V by amount' pattern by Francis et al. (1996), pattern 2 has '*to* amount' added, with the second amount indicating 'amount after movement'.

In pattern 3 (N=3, 9.09%), the 'hinge' (prep.) between 'movement' (v.) and 'amount of movement' (num.) is omitted from pattern 2, e.g. "Turnover for the year increased 93% to HK$608 million" (line 102). It is similar to the pattern 'V amount' in the study of Francis et al. (1998), with the verbs "concerned with changes in value, amount, or degree" (ibid.: 72). Similar to pattern 2, it has the second 'amount', i.e. 'amount after movement', added to the pattern 'V amount' proposed by Francis et al. (1998).

Since patterns 1 and 2 have the same frequency, they are both regarded as canonical local grammatical patterns of the phraseology.

Three main configurations of the linguistic forms of *increased/HK$#/million* are identified, as follows:

1) *increased ... HK$ ... million* (N=30, 75%)

a) *increased * HK$# million* (N=16, 40%), e.g. "Income from securities, derivatives and other trading activities increased by HK$60 million, or 84.5 per cent" (line 34)

b) *increased by #% to HK$# million* (N=8, 20%), e.g. "Wharf T&T's operating profit increased by 52% to HK$213 million" (line 18)

c) *increased #% to HK$# million* (N=3, 7.5%), e.g. "Total revenue of the property and hotels division increased 33% to HK$13, 912 million in 2009" (line 73)

d) *increased by * * * to HK$# million* (N=3, 7.5%), e.g. "Treasury's profit before tax increased by 48.9 per cent to HK$3,393 million" (line 28)

2) *increased ... HK$ ... million ... HK$ ... million* (N=9, 22.5%)

a) *increased by HK$# million or #% * HK$# million* (N=4, 10%), e.g. "Profit contribution from other businesses for the eighteen months ended 31 December 2009 increased by HK$51 million, or 15%, to HK$394 million" (line 53)

b) *increased * HK$# million * HK$# million* (N=3, 7.5%), e.g. "Minority interests increased by HK$116 million to HK$587 million" (line 38)

c) *increased strongly by HK$# million, or #%, to HK$# million* (N=1, 2.5%), as in "Against this backdrop, the Group's total investment and insurance income increased strongly by HK$2,537 million, or 118.1%, to HK$4,686 million" (line 86)

d) *increased from HK$# million * * * * * * * * * to HK$# million* (N=1, 2.5%), as in "Net rental income also increased from HK$2,550 million for the twelve months of the previous financial year to HK$4,262 million" (line 71)

3) *increased ... HK$ ... million ... million* (N=1, 2.5%)

increased by HK$# million, or #%, to # million (N=1, 2.5%), as in "The Group's total operating expenses increased by HK$3,370 million, or 38.4%, to 12,141 million" (line 50)

The three local grammatical patterns of *increased/HK$#/million* are mapped onto the three configurations (Table 4.5b).

Table 4.5b Local grammatical patterns and configurations of *increased/HK$#/million*

Pat-	Configuration	Conf	Freq	Total

tern		number			freq
1	*increased * HK$# million*	1a	15 45.45%		15 45.45%
2	*increased by #% to HK$# million*	1b	8 24.24%		
	increased by HK$# million or #% * HK$# million	2a	3 9.09%		
	*increased by * * * to HK$# million*	1d	2 6.06%		15 45.45%
	*increased * HK$# million * HK$# million*	2b	1 3.03%		
	increased by HK$# million, or #%, to # million	3	1 3.03%		
3	*increased #% to HK$# million*	1c	3 9.09%		3 9.09%

All the 15 instances in pattern 1 (45.45%) are found in configuration 1a *increased * HK$# million*, with the preposition *by* between *increased* and *HK$# million*. *HK$# million* represents the 'amount of movement' (num.). In 12 instances (36.36%), it is co-selected with a percentage to further illustrate the amount, e.g. "Compared to the first half of 2009, total investment and insurance income increased by HK$536 million, or 25.8%" (line 36).

The 15 instances in pattern 2 (45.45%) are found in five configurations. Eight instances (24.24%) are found in configuration 1b *increased by #% to HK$# million*, with *#%* representing the 'amount of movement' (num.) and *HK$# million* representing the 'amount after movement' (num.), e.g. "Advances and other accounts, including mortgage loans and cards advances, increased by 6.7% to HK$162,422 million" (line 83). Three instances (9.09%) are found in configuration 2a *increased by HK$# million or #% * HK$# million*, with *HK$# million* occurring twice in each instance. The first *HK$# million*, together with *or + #%*, represents the 'amount of movement' (num.); the second *HK$# million* represents the 'amount after movement' (num.), preceded by the hinge *to* in these 3 instances (9.09%), e.g. "Other operating expenses increased by HK$214 million or 15.5% to HK$1,594 million" (line 67). Two instances in pattern 2 (6.06%) are found in configuration 1d *increased by * * * to*

HK$# million, which is similar to the eight instances (24.24%) in configuration 1b in that the words between *increased* and *HK$# million* are *by*, a percentage, and *to*. The percentage represents the 'amount of movement' (num.) and *HK$# million* represents the 'amount after movement' (num.). The only difference is that the percentages in configuration 1d are in the form of *# per cent*, rather than *#%* in configuration 1b, e.g. "Treasury's profit before tax increased by 48.9 per cent to HK$3,393 million" (line 28). One instance (3.03%) is found in configuration 2b *increased * HK$# million * HK$# million*. The first *HK$# million* represents the 'amount of movement' (num.), connected to *increased* by the 'hinge' (prep.) *by*. The second *HK$# million* represents the 'amount after movement' (num.), connected to the 'amount of movement' (num.) by the 'hinge' (prep.) *to*, as in "Minority interests increased by HK$116 million to HK$587 million" (line 38). The other instance in pattern 2 (3.03%) is found in configuration 3, namely *increased by HK$# million, or #%, to # million*, in which *HK$# million* represents the 'amount of movement' (num.) and *# million* represent the 'amount after movement' (num.), as in "The Group's total operating expenses increased by HK$3,370 million, or 38.4%, to 12,141 million" (line 50).

All the 3 instances in pattern 3 (9.09%) are found in configuration 1c *increased #% to HK$# million*, with *#%* representing the 'amount of movement' (num.) and *HK$# million* representing the 'amount after movement' (num.), e.g. "Total revenue of the property and hotels division increased 33% to HK$13,912 million" (line 73).

The three main configurations of *increased/HK$#/million* are then mapped onto the three local grammatical patterns (Table 4.5c).

Table 4.5c Configurations and local grammatical patterns of *increased/HK$#/million*

conf no.	Configuration	Freq	Pattern	Total freq
1a	*increased * HK$# million*	15 37.5%	pattern 1	16 40%
		1 2.5%	unclassified	

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1b	*increased by #% to HK$# million*	8 20%	pattern 2	8 20%	
1c	*increased #% to HK$# million*	3 7.5%	pattern 3	3 7.5%	
1d	*increased by * * * to HK$# million*	2 5%	pattern 2	3 7.5%	
		1 2.5%	unclassified		
2a	*increased by HK$# million or #% * HK$# million*	3 7.5%	pattern 2	4 10%	
		1 2.5%	unclassified		
2b	*increased * HK$# million * HK$# million*	2 5%	unclassified	3 7.5%	
		1 2.5%	pattern 2		
2c	*increased strongly by HK$# million, or #%, to HK$# million*	1 2.5%	unclassified	1 2.5%	
2d	*increased from HK$# million * * * * * * * * * to HK$# million*	1 2.5%	unclassified	1 2.5%	
3	*increased by HK$# million, or #%, to # million*	1 2.5%	pattern 2	1 2.5%	

The 15 instances (37.5%) of configuration 1a found in local grammatical pattern 1 all have the preposition *by* between *increased* and *HK$# million*, e.g. "Income from securities, derivatives and other trading activities increased by HK$60 million, or 84.5 per cent" (line 34). The other instance (2.5%) with the preposition *to* as the intervening word is not classified into grammatical patterns, as in "The balance of savings accounts increased to HK$81,711 million" (line 17), since it is the only instance with the grammatical structure of 'the thing that moves (n.) + movement (v.) + hinge (prep.) + amount after movement (num.)'.

Configurations 1b (N=8, 20%) and 1c (N=3, 7.5%) are found in patterns 2 and 3 respectively, with the only difference in whether the 'hinge' (prep.) *by* is used to connect 'movement' (v.) and 'amount of movement' (num.), e.g. "gross rental income increased by 67% to HK$6,025 million" (line 78, pattern 2, with the 'hinge' *by*) and "Total revenue of the property and hotels division increased 33% to HK$13,912 million" (line 73, pattern 3, without the 'hinge' *by*).

The other instances, except for a few instances that are not classified due to their unique grammatical features, are all found in pattern 2, the linguistic diversity of which is due to the difference in the length and format of the 'amount of movement' (num.) and 'amount after movement' (num.).

4.3.1.2 *Increased/per/cent*

In the case of *increased/per/cent*, 164 co-occurrences are found in 130 concordance lines and 91 co-selections in 85 concordance lines. Six local grammatical patterns are identified in 36 of the 40 lines analysed (90%) (Table 4.6a). A detailed description of the patterns and linguistic realizations is found in Appendix 6.

Table 4.6a Six local grammatical patterns of *increased/per/cent* in the discourse of economics

	n	v	prep	num		prep	num	prep	n	
1	the thing that moves	move-ment	hinge	amount of move-ment						17 47.22 %
	total operating income	*increas-ed*	*by*	*3.9 per cent*						
2	n	v	prep	num		prep	num			
	the thing that moves	move-ment	hinge	amount of move-ment		hinge	amount after move-ment			10 27.78 %
	trading income	*increas-ed*	*by*	*23 per cent*		*to*	*US$5.5 billion*			
3	n	v	prep	num		prep	num	prep	n	
	the thing that moves	move-ment	hinge	amount of move-ment		hinge	amount after move-ment	hinge	time after move-ment	3 8.33%
	impaired loans	*increas-ed*	*by*	*37 per cent*		*to*	*US$2.3 billion*	*at*	*31 Decem-ber 2008*	
4	n	v	prep	num		prep	num	prep	n	2 5.5
	the thing	move-	hinge	amount		hinge	amount	hinge	time of	

#	n	v	prep	num	prep	n	prep	num	prep	n	%
	that moves	ment		of move-ment				after move-ment		move-ment	6%
	total financial investments excluding equity securities	*increas-ed*	*by*	*23 per cent*			*to*	*US$360 billion*	*in*	*2009*	
5	n	v	prep	num	prep	n	prep	num	prep	n	25.56%
	the thing that moves	move-ment	hinge	amount before move-ment	hin-ge	time before move-ment	hinge	amount after move-ment	hinge	time after move-ment	
	contractual delinquency	*increas-ed*	*from*	*4 per cent*	*at*	*31 Decem-ber 2008*	*to*	*4.1 per cent*	*at*	*31 Decem-ber 2009*	
6	n	v	prep	num	prep	num	prep	num	prep	n	25.56%
	the thing that moves	move-ment	hinge	amount of move-ment	hin-ge	amount after move-ment	hinge	amount before move-ment	hinge	time of move-ment	
	loan impairment charges	*increas-ed*	*by*	*3 per cent*	*to*	*US$24.9 billion*	*from*	*US$24.1 billion*	*in*	*2008*	

Pattern 1 *the thing that moves* (n.) + *movement* (v.) + *hinge* (prep.) + *amount of movement* (num.) is the canonical local grammatical pattern of the phraseology (N=17, 47.22%). The 'movement' (v.), represented by *increased*, is connected to 'the amount of movement' (num.) in the form of *# per cent* by the 'hinge' (prep.) *by*, e.g. "On an underlying basis, net earned insurance premiums increased by 3 per cent" (line 10). It has its counterpart 'V *by* amount' in Francis et al. (1996).

Pattern 2 (N=10, 27.78%) has 'hinge (prep.) + amount after movement (num.)' added to the end of the canonical pattern, with the 'hinge' (prep.) represented by *to*, e.g. "annualised premiums increased by 14.7 per cent to HK$13.7 billion" (line 41). If Francis et al.'s (1996) method of presentation is adopted, pattern 2 should be represented as 'V *by* amount *to* amount', but it is not found in Francis et al. (1996). It

might be considered to be a feature of corporate annual reports to emphasize the result after movement or, in other words, the current situation.

Pattern 3 (N=3, 8.33%) has 'hinge (prep.) + amount after movement (num.) + hinge (prep.) + time after movement (n.)' added to the canonical pattern. The 'time after movement' (n.), represented by *31 December 2009* (5.56%) or *31 December 2008* (2.78%), is connected to the 'amount after movement' (num.) by the 'hinge' *at*, e.g. "Releases and recoveries in Latin America increased by 56 per cent to US$391 million at 31 December 2009" (line 94) and "Impaired loans increased by 37 per cent to US$2.3 billion at 31 December 2008" (line 35).

Pattern 4 (N=2, 5.56%) has 'hinge (prep.) + amount after movement (num.) + hinge (prep.) + time of movement (n.)' added to the canonical pattern, with the 'hinge + time of movement' in the linguistic form of *during the year under review* or *in 2009*, as in "The Group's gross rental income, including contributions from joint-venture properties, increased by 18 per cent to HK$9,763 million during the year under review" (line 67) and "Total financial investments excluding equity securities increased by 23 per cent to US$360 billion in 2009" (line 88).

In pattern 5 (N=2, 5.56%), the 'amount of movement' (num.) is omitted from the canonical pattern and 'amount before movement (num.) + hinge (prep.) + time before movement (n.) + hinge (prep.) + amount after movement (num.) + hinge (prep.) + time after movement (n.)' is added, e.g. "Within this portfolio, two months or more delinquency rates increased from 6 per cent at 31 December 2008 to 6.6 per cent at 31 December 2009" (line 102). It is similar to the pattern 'V *from* amount *to* amount' (Francis et al., 1996), with the difference in the adding of 'time before movement' and 'time after movement' after the two amounts in pattern 5.

Pattern 6 (N=2, 5.56%) has 'hinge (prep.) + amount after movement (num.) + hinge (prep.) + amount before movement (num.) + hinge (prep.) + time of movement (n.)' added to the canonical pattern, e.g. "Loan impairment charges increased by 3 per cent

to US$24.9 billion from US$24.1 billion in 2008" (line 55). It can be considered to be a complicated expansion of the pattern 'V *by* amount' (Francis et al., 1996).

Two main configurations of the linguistic forms of *increased/per/cent* are identified, as below:

1) *increased ... per cent* (N=37, 92.5%)

a. *increased by # per cent* (N=35, 87.5%), e.g. "On an underlying basis, net earned insurance premiums increased by 3 per cent" (line 10).

b. *increased slightly by # per cent* (N=1, 2.5%), as in "Operating expenses increased slightly by 2 per cent, well below the inflation rates of the main economics" (line 116).

c. *increased by # percentage points to # per cent* (N=1, 2.5%), as in "The cost efficiency ratio increased by 2.1 percentage points to 60.5 per cent" (line 119).

2) *increased ... per cent ... per cent* (N=3, 7.5%)

a. *increased from # per cent at 31 December 2008 to # per cent* (N=2, 5%), e.g. "Within this portfolio, two months or more delinquency rates increased from 6 per cent at 31 December 2008 to 6.6 per cent at 31 December 2009" (line 102).

b. *increased from # per cent to # per cent* (N=1, 2.5%), as in "Two months or more delinquencies increased from 3.4 per cent to 7.5 per cent at 31 December 2009" (line 114).

Configuration 1a is the canonical configuration of *increased/per/cent* due to its predominant frequency (N=35, 87.5%). The other configurations are considered to be its variants with some words added (1b and 1c) or some words added and some omitted (2a and 2b).

The six local grammatical patterns of *increased/per/cent* are mapped onto the two configurations (Table 4.6b).

Table 4.6b Local grammatical patterns and configurations of *increased/per/cent*

Pattern	Configuration	Configuration number	Freq	Total freq
1	*increased by # per cent*	1a	17 47.22%	17 47.22%
2	*increased by # per cent*	1a	9 25%	10 27.78%
	increased by # percentage points to # per cent	1c	1 2.78%	
3	*increased by # per cent*	1a	3 8.33%	3 8.33%
4	*increased by # per cent*	1a	2 5.56%	2 5.56%
5	*increased from # per cent at 31 December 2008 to # per cent*	2a	2 5.56%	2 5.56%
6	*increased by # per cent*	1a	2 5.56%	2 5.56%

All the 17 instances in local grammatical pattern 1 (47.22%) are found in configuration 1a *increased by # per cent*, with *# per cent* representing the 'amount of movement' (num.), e.g. "Total shareholders' equity increased by 31 per cent" (line 16).

Pattern 2 (N=10, 27.78%) is found in configurations 1a *increased by # per cent* (N=9, 25%) and 1c *increased by # percentage points to # per cent* (N=1, 2.78%). In the 9 instances in configuration 1a, *# per cent* represents the 'amount of movement' (num.), with the 'amount after movement' represented by numerals denominated in *US$* or *HK$*; while in the single instance in configuration 1c, *# per cent* represents the 'amount after movement' (num.) and *# percentage points* represents the 'amount of movement' (num.), e.g. "Releases and recoveries of allowances increased by 17 per cent to US$1.5 billion" (line 9, configuration 1a) and "The cost efficiency ratio increased by 2.1 percentage points to 60.5 per cent" (line 119, configuration 1c).

Patterns 3, 4, and 6 are all found in configuration 1a, with *# per cent* representing the 'amount of movement', e.g. "Impaired loans increased by 59 per cent to US$10.9 billion at 31 December 2009" (line 79, pattern 3), "Total financial investments excluding equity securities increased by 23 per cent to US$360 billion in 2009" (line 88, pattern 4), and "Loan impairment charges increased by 3 per cent to US$24.9 billion from US$24.1 billion in 2008" (line 55, pattern 6).

Pattern 5 is found in configuration 2a *increased from # per cent at 31 December 2008 to # per cent*, with the two occurrences of *per cent* representing 'amount before movement' (num.) and 'amount after movement' (num.) respectively, e.g. "contractual delinquency increased from 4 per cent at 31 December 2008 to 4.1 per cent at 31 December 2009" (line 103).

In pattern 1, the 'amount of movement' represented by *# per cent* is the only amount involved in the pattern. In patterns 2, 3, 4, and 5, two amounts are included in each instance. In patterns 2, 3, and 4, they are the 'amount of movement' represented by percentage and the 'amount after movement' represented by a numeral denominated in Hong Kong dollar or US dollar are included, e.g. "Net interest income in North America increased by 2 per cent to US$15.2 billion" (line 62); while in pattern 5, the two amounts are the 'amount before movement' and the 'amount after movement' both represented by *# per cent*, e.g. "contractual delinquency increased from 4 per cent at 31 December 2008 to 4.1 per cent at 31 December 2009" (line 103). In pattern 6, three amounts are specified, namely the 'amount of movement' represented by *# per cent*, and the 'amount after movement' and the 'amount before movement' represented by numerals denominated in US dollar, e.g. "Loan impairment charges increased by 40 per cent to US$24.1 billion from US$17.2 billion in 2007" (line 96).

The two configurations of *increased/per/cent* are then mapped onto the six local grammatical patterns (Table 4.6c).

Table 4.6c Configurations and local grammatical patterns of *increased/per/cent*

conf no.	Configuration	Freq	Pattern	Total freq
1a	*increased by # per cent*	17 42.5%	pattern 1	35 87.5%
		9 22.5%	pattern 2	
		3 7.5%	pattern 3	
		2 5%	pattern 4	
		2 5%	pattern 6	
		2 5%	unclassified	
1b	*increased slightly by # per cent*	1 2.5%	unclassified	1 2.5%
1c	*increased by # percentage points to # per cent*	1 2.5%	pattern 2	1 2.5%
2a	*increased from # per cent at 31 December 2008 to # per cent*	2 5%	pattern 5	2 5%
2b	*increased from # per cent to # per cent*	1 2.5%	unclassified	1 2.5%

Configuration 1a is distributed across all the local grammatical patterns except for pattern 5 due to its predominant frequency (N=35, 87.5%). In all the instances, *# per cent* represents the 'amount of movement' (num.), with differences in the co-selections of other semantic elements including 'amount after movement' (num.), 'time of movement' (n.), and 'time after movement' (n.).

Configuration 1b (N=1, 2.5%) is not classified into the six local grammatical patterns, since the 'movement' (v.) *increased* is qualified by the 'modifier of movement' (adv.) in the linguistic form of *slightly*, as in "Operating expenses increased slightly by 2 per cent" (line 116).

Configuration 1c (N=1, 2.5%) is found in pattern 2, as in "the cost efficiency ratio increased by 2.1 percentage points to 60.5 per cent" (line 119), with *2.1 percentage points* representing the 'amount of movement' (num.) and *60.5 per cent* representing the 'amount after movement' (num.).

Configuration 2a (N=2, 5%) is found in pattern 5, with the first occurrence of *# per cent* representing the 'amount before movement' (num.) and the second representing the 'amount after movement' (num.), which are followed by 'time before movement' (n.) and 'time after movement' (n.) respectively, e.g. "Two months or more delinquency rates increased from 6 per cent at 31 December 2008 to 6.6 per cent at 31 December 2009" (line 102).

Configuration 2b (N=1, 2.5%) is similar to 2a by having the first occurrence of *# per cent* representing the 'amount before movement' (num.) and the second representing the 'amount after movement' (num.), but they are not co-selected with 'time before movement' (n.), as in "Two months or more delinquencies increased from 3.4 per cent to 7.5 per cent at 31 December 2009" (line 114). It is therefore not classified into the local grammatical patterns, partly due to the limitation of data size.

4.3.1.3 *Rose/per/cent*

In the case of *rose/per/cent*, 134 co-occurrences are found in 94 concordance lines and 85 co-selections in 75 concordance lines. Three local grammatical patterns are identified in 35 of the 40 instances analysed (87.5%) (Table 4.7a). A detailed description of the patterns and linguistic realization is found in Appendix 7.

Table 4.7a Three local grammatical patterns of *rose/per/cent* in the discourse of economics

	n	v	prep	num					
1	the thing that moves	move ment	hinge	amount of movem					23 65.71%

#	n	v	prep	num	prep	n	prep	num	prep	n	
				ent							
	card receivables	*rose*	*by*	*7.6 per cent*							
2	n	v	prep	num			prep	num			7 20%
	the thing that moves	move ment	hinge	amount of movem ent			hinge	amount after movem ent			
	loan impairme nt charges	*rose*	*by*	*9 per cent*			*to*	*US$649 million*			
3	n	v	prep	num	prep	n	prep	num	prep	n	5 14.29%
	the thing that moves	move ment	hinge	amount before movem ent	hinge	time before move ment	hinge	amount after movem ent	hinge	time after move ment	
	the group's employee engagem ent score	*rose*	*from*	*67 per cent*	*in*	*2008*	*to*	*71 per cent*	*in*	*2009*	

In all the three local grammatical patterns, 'movement' (v.) is represented by *rose*. Local grammatical pattern 1 *the thing that moves* (n.) + *movement* (v.) + *hinge* (prep.) + *amount of movement* (num.) is the canonical local grammatical pattern of *rose/per/cent* (N=23, 65.71%). The 'amount of movement' (num.), represented by *# per cent* (62.86%) or *US$# million or # per cent* (2.86%), is connected to the 'movement' (v.) by the 'hinge' (prep.) *by*, e.g. "customer advances rose by 12.1 per cent" (line 70) and "In Mexico, loan impairment charges rose by US$513 million or 69 per cent" (line 79). It has its counterpart 'V *by* amount' in Francis et al. (1996). The 'amount of movement' in pattern 1 is represented as 'amount' in the pattern of Francis et al. (1996).

Pattern 2 (N=7, 20%) has 'hinge (prep.) + amount after movement (num.)' added to the canonical pattern, with the 'amount after movement' (num.), represented by a numeral denominated in US dollars, connected to the 'amount of movement' (num.) in the form of *# per cent* by the 'hinge' *to*, e.g. "In personal Financial Services, loan

impairment charges rose by 9 per cent to US$649 million" (line 25). It can be considered to be a variant of the pattern 'V *by* amount' in Francis et al. (1996), with '*to* amount' added.

In pattern 3 (N=5, 14.29%), which has a high degree of turbulence from the canonical pattern, the 'amount of movement' (num.) is not found and 'amount before movement (num.) + hinge (prep.) + time before movement (n.) + hinge (prep.) + amount after movement (num.) + hinge (prep.) + time after movement (n.)' is added, e.g. "The Group's employee engagement score rose from 67 per cent in 2008 to 71 per cent in 2009" (line 2). It is a variant of the pattern 'V *from* amount *to* amount' in Francis et al. (1996) by having 'time before movement' and 'time after movement' added after the two amounts.

Two main configurations of the linguistic forms of *rose/per/cent* are identified, as follows:

1) *rose ... per cent* (N=34, 85%)

a. *rose by # per cent* (N=30, 75%), e.g. "In Personal Financial Services, loan impairment charges rose by 9 per cent to US$649 million" (line 25)

b. *rose * * * * # per cent* (N=2, 5%), e.g. "Mortgage lending in the US fell by 19 per cent to US$78 billion and rose in the UK by 15 per cent to US$102 billion" (line 1)

c. *rose * * * * of # per cent* (N=2, 5%), e.g. "Unemployment rose to an 11-year high of 10 per cent in December 2009" (line 81)

2) *rose ... per cent ... per cent* (N=6, 15%)

a. *rose by # per cent and # per cent* (N=1, 2.5%), as in "Total policies in-force and total annualized premiums rose by 10.1 per cent and 14.7 per cent respectively" (line 71)

b. *rose from # per cent * * to # per cent* (N=1, 2.5%), as in "The Group's employee engagement score rose from 67 per cent in 2008 to 71 per cent in 2009" (line 2)

c. *rose from # per cent * * * to # per cent* (N=1, 2.5%), as in "the unemployment rate rose from 3.8 per cent in January 2008 to 4.4 per cent by the year-end" (line 72)

d. *rose from # per cent * * to * * * of # per cent* (N=1, 2.5%), as in "Labour market conditions weakened throughout the course of the year as the unemployment rate rose from 4.9 per cent in January to a 15-year high of 7.2 per cent in December 2008" (line 74)

e. *rose from # per cent * * * to * * * of # per cent* (N=1, 2.5%), as in "The unemployment rate rose from 4.3 per cent in December 2008 to a record high of 5.7 per cent in July 2009" (line 3)

f. *rose from * * * # per cent * * * to * * * * of # per cent* (N=1, 2.5%), as in "Labour market conditions deteriorated as the unemployment rate rose from a level of 6.8 per cent in December 2008 to an eleven year high of 8.7 per cent in August" (line 77)

Table 4.7b shows the relation between the three local grammatical patterns of *rose/per/cent* and the two configurations.

Table 4.7b Local grammatical patterns and configurations of *rose/per/cent*

Pattern	Configuration	Conf number	Freq	Total freq
1	*rose by # per cent*	1a	22 62.86%	23 65.71%
	*rose * * * * # per cent*	1b	1 2.86%	
2	*rose by # per cent*	1a	7 20%	7 20%
3	*rose from # per cent * * to # per cent*	2b	1 2.86%	5 14.29%
	*rose from # per cent * * * to # per cent*	2c	1 2.86%	
	*rose from # per cent * * to * * * of # per cent*	2d	1 2.86%	
	*rose from # per cent * * * to * * * of # per cent*	2e	1 2.86%	
	*rose from * * * # per cent * * * to * * * * of # per cent*	2f	1 2.86%	

Twenty-two instances in pattern 1 (62.86%) are found in configuration 1a, with *# per cent* representing the 'amount of movement' (num.), e.g. "Income from associates and joint ventures rose by 5 per cent" (line 23). The only exception of pattern 1 (2.86%) is found in the configuration 1b *rose * * * * # per cent*, with the 'amount of movement' (num.) represented by both the percentage and another numeral denominated in US dollar, as in "In Mexico, loan impairment charges rose by US$513 million or 69 per cent, primarily in the credit card portfolio" (line 79).

All the 7 instances in pattern 2 (20%) are found in configuration 1a *rose by # per cent*, with *# per cent* representing the 'amount of movement' (num.). Another amount involved in pattern 2 is the 'amount after movement' (num.) realised by a numeral denominated in US dollar, e.g. "Releases and recoveries in North America rose by 55 per cent to US$180 million" (line 44).

The 5 instances of pattern 3 (14.29%) are found in the configurations 2b, c, d, e and f in the sequence of *rose ... per cent ... per cent*, with the first *# per cent* representing the 'amount before movement' (num.) and the second *# per cent* representing the 'amount after movement' (num.). The difference in the number of intervening words is

because of the different lengths of 'time before movement' (n.) and 'amount after movement' (num.), e.g. "the group's employee engagement score rose from 67 per cent in 2008 to 71 per cent in 2009" (line 2) and "the unemployment rate rose from 4.9 per cent in January to a 15-year high of 7.2 per cent in December 2008" (line 74).

Table 4.7c below shows the mapping of the two configurations of *rose/per/cent* onto the three local grammatical patterns.

Table 4.7c Configurations and local grammatical patterns of *rose/per/cent*

conf no.	Configuration	Freq	Pattern	Total freq
1a	*rose by # per cent*	22 55%	pattern 1	30 75%
		7 17.5%	pattern 2	
		1 2.5%	unclassified	
1b	*rose * * * * # per cent*	1 2.5%	pattern 1	2 5%
		1 2.5%	unclassified	
1c	*rose * * * * of # per cent*	2 5%	unclassified	2 5%
2a	*rose by # per cent and # per cent*	1 2.5%	unclassified	6 15%
2b	*rose from # per cent * * to # per cent*	1 2.5%	pattern 3	
2c	*rose from # per cent * * * to # per cent*	1 2.5%	pattern 3	
2d	*rose from # per cent * * to * * * of # per cent*	1 2.5%	pattern 3	
2e	*rose from # per cent * * * to * * * of # per cent*	1 2.5%	pattern 3	
2f	*rose from * * * # per cent * * * to * * * * of # per cent*	1 2.5%	pattern 3	

Configuration 1a (N=30, 75%) is found in patterns 1 (N=22, 55%) and 2 (N=7, 17.5%), with the difference between these two patterns in whether *# per cent*, which represents

the 'amount of movement' (num.), is the only amount included in the pattern, e.g. "Operating expenses rose by 4 per cent" (line 22, pattern 1) and "Releases and recoveries in North America rose by 55 per cent to US$180 million" (line 44, pattern 2).

Configuration 1b (N=2, 5%) is found in pattern 1 (N=1, 2.5%), with the 'amount of movement' (num.) represented by both the percentage and a figure denominated in US dollar, as in "In Mexico, loan impairment charges rose by US$515 million or 69 per cent" (line 79).

Configurations 2 b, c, d, e, and f are all found in pattern 3, with the first *# per cent* representing the 'amount before movement' (num.) and the second *# per cent* representing the 'amount after movement' (num.), e.g. "the unemployment rate rose from 4.9 per cent in January to a 15-year high of 7.2 per cent in December 2008" (line 74).

A few instances are left unclassified for their unique grammatical features, due to the infrequent occurrence and small data size.

4.3.1.4 *Increase/HK$#/million*

In the case of *increase/HK$#/million*, 211 co-occurrences are found in 126 concordance lines and 65 co-selections in 63 concordance lines. Four local grammatical patterns are identified in 31 of the 40 concordance lines analysed (77.5%) (Table 4.8a). A detailed description of the patterns and linguistic realizations is found in Appendix 8.

Table 4.8a Four local grammatical patterns of *increase/HK$#/million* in the discourse of economics

	n		prep	num	prep	n/num	
1	movement		hinge	amount of movement	hinge	amount before movement	14 45.16%
	an increase		*of*	*HK$380 million, or 7%,*	*over*	*that for the previous financial year*	
2	n		prep	num			10 32.26%
	movement		hinge	amount of movement			
	an increase		*of*	*HK$7,624 million*			
3	n		prep	n	prep	num	4 12.90%
	movement		hinge	the thing that moves	hinge	amount of movement	
	the increase		*in*	*operating profit*	*of*	*HK$12,580 million*	
4	num	n	prep	n			3 9.68%
	amount of movement	movement	hinge	the thing that moves			
	a HK$140 million	*increase*	*in*	*net surplus on property revaluation*			

Pattern 1 is the canonical local grammatical pattern of *increase/HK$#/million* (N=14, 45.16%). The 'movement' (n.), represented by *an increase*, is connected to the 'amount of movement' (num.) in the form of *HK$# million, or #%* (38.71%), *# per cent* (3.23%), or *#%* (3.23%) by the 'hinge' (prep.) *of*. The other amount involved in the pattern is the 'amount before movement' (n./num.) in the form of *that for the previous financial year* (35.48%), *that of the previous financial year* (3.23%), *last year's HK$# million* (3.23%), or *the HK$# million at the end of 2008* (3.23%), which is connected to the 'amount of movement' (num.) by the 'hinge' (prep.) *over* (41.94%) or *from* (3.23%), e.g. "representing an increase of HK$380 million, or 7%, over that for the previous financial year" (line 11), "an increase of 4.5% over the HK$415,254 million at the end of 2008" (line 62), and "an increase of 81 per cent from last year's HK$#14,151 million" (line 36). It is an expansion of the pattern 'N *of* amount' in Francis et al. (1998). The nouns in this pattern are classified into the 'magnitude' group which "can be expressed as an amount or figure" (ibid.: 185). The 'amount' in the pattern of Francis et al. (1998) is equal to the 'amount of movement' in pattern 1, in which another amount, namely 'amount before movement', is included to emphasize the comparison.

In pattern 2 (N=10, 32.26%), the comparison with the 'amount before movement' occurs in a subordinate clause (N=9, 29.03%), which is not included in the local grammatical pattern, e.g. "represented an increase of HK$29 million or 23% as compared with that of HK$127 million (restated) for the financial year ended 30 June 2008" (line 24). In the only exception, the comparison is not found, as in "The increase of HK$3,018 million or 1.4% was mainly due to profit attributable to the Company's shareholders" (line 34). It is almost the same as the pattern 'N *of* amount' in Francis et al. (1998), with the 'amount' represented as 'amount of movement' in pattern 2.

In pattern 3 (N=4, 12.9%), 'the thing that moves' (n.) is inserted between 'movement' (n.) and 'the amount of movement' (num.), connected by 'hinges' (prep.) *in* and *of* (9.68%) or *by* (3.23%) respectively, e.g. "there was an increase in administrative expenses for the construction segment of HK$6 million" (line 121) and "because of the increase in fee income for stock broking by HK$388 million, or 23.9%" (line 35). It can be understood as the combination of the patterns 'N *in* n' and 'N *of* amount' by Francis et al. (1998). In the pattern 'N *in* n', the nouns are classified as the 'increase' and 'decrease' group referring to an increase, decrease, or change, and in the pattern 'N *of* amount', the nouns are classified into the 'magnitude' group referring to "something that can be expressed as an amount or figure" (ibid.: 185). The nouns in the combination of these two patterns need to belong to both groups, i.e. indicating the increase, decrease, or change and can be expressed as an amount or figure, which conform to the features of *increase*.

In pattern 4 (N=3, 9.68%), the 'movement' (n.) is preceded by 'the amount of movement' (num.), e.g. "after taking into account a HK$140 million increase in net surplus on property revaluation" (line 40). Pattern 4 does not have its counterpart in the patterns of the nouns in the 'increase' and 'decrease' group in Francis et al. (1998). It may be considered to be a feature of the language of movement in corporate annual reports.

Three main configurations of the linguistic forms of *increase/HK$#/million* are identified, as follows:

1) *increase ... HK$ ... million* (N=36, 90%)

a. *increase * HK$# million* (N=25, 62.5%), e.g. "For the year 2009, the BEA Group recorded a profit after tax of HK$2,638 million, representing an increase of HK$2,534 million, or 2,445.1%, compared to the HK$104 million earned in 2008" (line 72)

b. *increase * * * * HK$# million* (N=2, 5%), e.g. "Total consolidated assets of the Group stood at HK$434,082 million at the end of 2009, an increase of 4.5% over the HK$415,254 million at the end of 2008" (line 62)

c. *increase * * * * * HK$# million* (N=2, 5%), e.g. "Profit attributable to shareholders was HK$5,568 million, a 26% increase over last year's profit of HK$4,423 million" (line 87)

d. *increase * * * * * * * HK$# million* (N=2, 5%), e.g. "commission income increased by HK$614 million, or 20.8%, in the second half largely because of the increase in fee income from stock broking by HK$388 million, or 23.9%" (line 35)

e. *increase in * * * * * * of HK$# million* (N=2, 5%), e.g. "During the eighteen months ended 31 December 2009, the Group recorded (i) an increase in the share of profits from HKCG of HK$218 million" (line 115)

f. *increase * * * * * * * * * * * HK$# million* (N=2, 5%), e.g. "The Group recorded an increase in turnover for the eighteen months ended 31 December 2009 of HK$1,738 million, or 13%" (line 123)

g. *increase * * * HK$# million* (N=1, 2.5%), as in "NWCL has achieved an increase of 13% to HK$440.1 million in contributions from rental operation" (line 110)

2) *HK$ ... million ... increase* (N=3, 7.5%)

a. *HK$# million net increase* (N=2, 5%), e.g. "mainly attributable to a HK$462 million net increase in funding swap income" (line 104)

b. *HK$# million increase* (N=1, 2.5%), as in "after taking into account a HK$140 million increase in net surplus on property revaluation" (line 40)

3) *increase ... HK$ ... million ... HK$ ... million* (N=1, 2.5%)

increase of HK$# million to HK$# million (N=1, 2.5%), as in "Profit from property sales reported an increase of HK$670 million to HK$7,113 million" (line 108)

The four local grammatical patterns of *increase/HK$#/million* are mapped onto the three configurations (Table 4.8b).

Table 4.8b Local grammatical patterns and configurations of *increase/HK$#/million*

pattern	Configuration	Conf number	Freq	Total freq
1	*increase * HK$# million*	1a	12 38.71%	
	*increase * * * * HK$# million*	1b	1 3.23%	14 45.16%
	*increase * * * * * * * HK$# million*	1d	1 3.23%	
2	*increase * HK$# million*	1a	10 32.26%	10 32.26%
3	*increase in * * * * * * of HK$# million*	1e	2 6.45%	
	*increase * * * * HK$# million*	1b	1 3.23%	4 12.90%
	*increase * * * * * * * HK$# million*	1d	1 3.23%	
4	*HK$# million net increase*	2a	2 6.45%	3 9.68%

	HK$# million increase	2b	1 3.23%	

The first three patterns all occur in the position of *increase ... HK$ ... million*. Twelve instances in pattern 1 (38.71%) are found in configuration 1a *increase * HK$# million*, with the 'hinge' (prep.) *of* between *increase* and *HK$# million*. *HK$# million*, together with *or + #%*, represents the 'amount of movement' (num.). The other amount in pattern 1 is 'amount before movement', but it is not specified in numerals, but in the form of *that for the previous financial year*, e.g. "representing an increase of HK$380 million, or 7%, over that for the previous financial year" (line 11). One instance in pattern 1 (3.23%) is found in configuration 1b *increase * * * * HK$# million*, with four words between *increase* and *HK$# million*, as in "an increase of 4.5% over the HK$415,254 million at the end of 2008" (line 62). The other instance (3.23%) is found in configuration 1d *increase * * * * * * * HK$# million*, with seven intervening words, as in "an increase of 81 per cent from last year's HK$14,151 million" (line 36). These two configurations are similar in having percentage as the 'amount of movement' (num.), and the 'amount after movement' (num.) specified in numerals denominated in Hong Kong dollar.

All the 10 instances in pattern 2 (32.26%) are found in configuration 1a *increase * HK$# million*, with the 'hinge' (prep.) *of* between *increase* and *HK$# million*. *HK$# million*, in a few instances together with *or + #%*, represents the 'amount of movement' (num.). It is the only amount involved in pattern 2, e.g. "Contribution from property management was HK$103 million (2008: HK$98 million), an increase of HK$5 million when compared with last year" (line 59).

In both patterns 1 and 2, 'the thing that moves' is not specified within the noun group of *increase/HK$#/million*, while in patterns 3 and 4, it is specified within the noun group.

Two instances in pattern 3 (6.45%) are found in configuration 1e *increase in * * * * * * of HK$# million*, e.g. "there was an increase in administrative expenses for the construction segment of HK$6 million" (line 121). One instance (3.23%) is found in configuration 1b *increase * * * * HK$# million*, as in "The increase in operating profit of HK$12,580 million compared to 2008 was principally derived from" (line 99), and the other instance (3.23%) in configuration 1d *increase * * * * * * * HK$# million*, as in "largely because of the increase in fee income from stock broking by HK$388 million, or 23.9%" (line 35). The first intervening words of these configurations are always the hinge *in*, and the last intervening words are the hinges *of* (9.68%) or *by* (3.23%). The difference in the number of intervening words is due to the different length of 'the thing that moves' (n.).

All the 3 instances of pattern 4 (9.68%) occur in the position of *HK$# ... million ... increase*, with *HK$# million* preceding *increase*. Two instances (6.45%) are found in configuration 2a *HK$# million net increase*, e.g. "due mainly to a HK$462 million net increase in funding swap income" (line 46). The other instance (3.23%) is found in configuration 2b *HK$# million increase* without any word in between, as in "after taking into account a HK$140 million increase in net surplus on property revaluation" (line 40).

Table 4.8c shows the three configurations of *increase/HK$#/million* mapped onto the four local grammatical patterns.

Table 4.8c Configurations and local grammatical patterns of *increase/HK$#/million*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*increase * HK$# million*	12 30%	pattern 1	25 62.5%
		10 25%	pattern 2	
		3 7.5%	unclassified	
1b	*increase * * * * HK$# million*	1 2.5%	pattern 1	2 5%
		1 2.5%	pattern 3	
1c	*increase * * * * * HK$# million*	2 5%	unclassified	2 5%
1d	*increase * * * * * * * HK$# million*	1 2.5%	pattern 1	2 5%
		1 2.5%	pattern 3	
1e	*increase in * * * * * * of HK$# million*	2 5%	pattern 3	2 5%
1f	*increase * * * * * * * * * * * HK$# million*	2 5%	unclassified	2 5%
1g	*increase * * * HK$# million*	1 2.5%	unclassified	1 2.5%
2a	*HK$# million net increase*	2 5%	pattern 4	3 7.5%
2b	*HK$# million increase*	1 2.5%		
3	*increase of HK$# million to HK$# million*	1 2.5%	unclassified	1 2.5%

Configuration 1a (N=25, 62.5%), the canonical configuration of the phraseology, is found in patterns 1 (N=12, 30%) and 2 (N=10, 25%), with *of* between *increase* and *HK$# million* in these 22 instances (55%). The other 3 instances (7.5%) are not classified into local grammatical patterns. Two of them have *to* connecting the 'movement' (n.) to the 'amount after movement' (num.), as in "CME'S operating profit recorded an increase to HK$163 million" (line 105) and "Property Investment's rental revenue from Hong Kong recorded a 10% increase to HK$6,637 million" (line 109). Since the 'amount of movement' (num.) represented by *#%* is co-selected with *increase* in line 109 but not in line 105, these two instances are not classified into a

local grammatical pattern. In the other instance, "whereas an increase of HK$15,851 million for the previous year" (line 49), *the previous year* represents 'the time of movement' (n.), which is unique to this instance.

Configurations 1b (N=2, 5%) and 1d (N=2, 5%) are both found in patterns 1 and 3. The intervening words in pattern 1 represent 'hinge (prep.) + amount of movement (num.) + hinge (prep.)' and part of 'amount before movement' (num.), e.g. "an increase of 81 per cent from last year's HK$14,151 million" (line 36); those in pattern 3 represent 'hinge (prep.) + the thing that moves (n.) + hinge (prep.)', e.g. "the increase in operating profit of HK$12,580 million" (line 99).

Configuration 1e (N=2, 5%) is found in pattern 3, with the six asterisks representing 'the thing that moves', e.g. "an increase in the share of profits from HKCG of HK$218 million" (line 115).

Configurations 2a (N=2, 5%) and 2b (N=1, 2.5%) are both found in pattern 4, with *HK$# million* representing the 'amount of movement' (num.), e.g. "after taking into account a HK$140 million increase in net surplus on property revaluation" (line 40).

The other configurations are not classified into local grammatical patterns due to their unique grammatical features.

4.3.1.5 *Increase/per/cent*

In the case of *increase/per/cent*, 102 co-occurrences are found in 82 concordance lines and 54 co-selections in 51 concordance lines. Six local grammatical patterns are identified in 32 of the 40 lines analysed (80%) (Table 4.9a). A detailed description of the patterns and linguistic realizations is found in Appendix 9.

Table 4.9a Six local grammatical patterns of *increase/per/cent* in the discourse of economics

#							N
1	num	n	prep	n			14 43.75%
	amount of movement	movement	hinge	the thing that moves			
	a 41.5 per cent	*increase*	*in*	*loan interest income*			
2	n		prep	num			5 15.63%
	movement		hinge	amount of movement			
	an increase		*of*	*21 per cent*			
3	n		prep	num	prep	n	4 12.5%
	movement		hinge	amount of movement	hinge	time before movement	
	an increase		*of*	*6 per cent*	*over*	*2008*	
4	num	n			prep	n	4 12.5%
	amount of movement	movement			hinge	time of movement	
	a 2.2 per cent	*increase*			*dur-ing*	*2008*	
5	num	n	prep	n	prep	n	3 9.38%
	amount of movement	movement	hinge	the thing that moves	hinge	time of movement	
	a 25.5 per cent	*increase*	*in*	*the number of Prestige Banking customers*	*in*	*2009*	
6	adj	num	n	prep	n		2 6.25%
	modifier of movement	amount of movement	movement	hinge	the thing that moves		
	an impressive	*11.7 per cent*	*increase*	*in*	*residential mortgage lending to individuals*		

Pattern 1 is the canonical local grammatical pattern of *increase/per/cent* (N=14, 43.75%). The 'movement' (n.) *increase* is preceded by 'the amount of movement' (num.) in the form of *a # per cent* (34.38%), *the # per cent* (6.25%), and *# per cent* (3.13%), with 'the thing that moves' (n.) connected to the 'movement' (n.) by the 'hinge' (prep.) *in*, e.g. "including a 25.2 per cent increase in the total number of Prestige Banking customers" (line 13). This local grammatical pattern does not find its counterpart in the patterns of nouns in the 'increase' and 'decrease' group by Francis et al. (1998). It may be a feature of the language of movement in corporate annual reports.

In pattern 2 (N=5, 15.63%), 'the thing that moves' (n.) is not found, and the sequence of 'movement' (n.) and 'amount of movement' (num.) is changed, e.g. "an increase of 21 per cent compared with the end of 2008" (line 65). Since *the end of 2008*, which represents the 'time before movement' (n.), occurs in a subordinate clause starting with *compared with*, it is not included in the local grammatical pattern. It is almost the same as the pattern 'N *of* amount' identified by Francis et al. (1998), with the nouns expressed as an amount or figure. The 'amount' equals to the 'amount of movement' in the current study.

'Time before movement (n.)' is included in local grammatical pattern 3 (N=4, 12.5%), since it is connected to the 'amount of movement' (num.) by the 'hinge' (prep.) *over* (9.38%) or *on* (3.13%), e.g. "an increase of 18.5 per cent over the previous year" (line 72). It can be regarded as an expansion of the pattern 'N *of* amount' by Francis et al. (1998) with the 'time before movement' added to specify the comparison.

In pattern 4 (N=4, 12.5%), 'the thing that moves' (n.) is not found and 'hinge (prep.) + time of movement (n.) is added to the canonical pattern, e.g. "following a 2.2 per cent increase during 2008" (line 22).

Patterns 5 (N=3, 9.38%) and 6 (N=2, 6.25%) have lower degrees of turbulence from the canonical pattern by having 'hinge (prep.) + time of movement (n.)' and 'modifier of movement' (adj.) added respectively, e.g. "We achieved a 25.2 per cent increase in the number of Prestige Banking customers in 2009" (line 44, pattern 5) and "achieve an impressive 11.7 per cent increase in residential mortgage lending to individuals" (line 47, pattern 6).

Local grammatical patterns 4 and 5 do not find their counterparts in Francis et al. (1998), and may therefore be considered to be a feature of the language of movement in corporate annual reports or in financial English.

Three main configurations of the linguistic forms of *increase/per/cent* are identified, as below:

1) *per cent ... increase* (N=23, 57.5%)

a. *# per cent increase* (N=22, 55%), e.g. "This underpinned the 66.8 per cent increase in net operating income after credit risk provisions to HK$3,184 million" (line 53)

b. *# per cent * increase* (N=1, 2.5%), as in "6 per cent underlying increase in share of profit in associates and joint ventures" (line 36)

2) *increase ... per cent* (N=15, 37.5%)

a. *increase of # per cent* (N=9, 22.5%), e.g. "Reported loan impairment charges and other credit risk provisions were US$26.5 billion in 2009, an increase of 6 per cent over 2008" (line 63)

b. *increase * * * * # per cent* (N=3, 7.5%), as in "an increase of US$7.0 billion or 201 per cent compared with 2008" (line 75)

c. *increase * * * # per cent* (N=1, 2.5%), as in "Not only does this figure represent an increase of more than 38 per cent over 2008" (line 74)

d. *increase * * * * * * # per cent* (N=1, 2.5%), as in "Economic spread increased by 0.1 percentage points, the result of an increase in return on invested capital of 2 per cent" (line 76)

e. *increase * * * * * # * # per cent* (N=1, 2.5%), as in "This was an increase on the 2008 range of 7.5 to 9.0 per cent" (line 12)

3) *per cent ... per cent ... increase* (N=2, 5%)

a. *# per cent * # per cent increase* (N=1, 2.5%), as in "brokerage business and investment funds business registered a 29.3 per cent and 236.1 per cent increase in turnover in the second half of 2009 compared with the first half of 2009" (line 35)

b. *# per cent * * # per cent increase* (N=1, 2.5%), as in "limiting the decline in full year GDP to 2.4 per cent after a 0.4 per cent increase during 2008" (line 31)

The six local grammatical patterns of *increase/per/cent* are mapped onto the three configurations (Table 4.9b).

Table 4.9b Local grammatical patterns and configurations of *increase/per/cent*

Pattern	Configuration	Conf number	Freq	Total freq
1	*# per cent increase*	1a	14 43.75%	14 43.75%
2	*increase of # per cent*	2a	4 12.5%	5 15.63%
	*increase * * * * # per cent*	2b	1 3.13%	
3	*increase of # per cent*	2a	3 9.38%	4 12.5%
	*increase * * * # per cent*	2c	1 3.13%	
4	*# per cent increase*	1a	4 12.5%	4 12.5%
5	*# per cent increase*	1a	2 6.25%	3 9.38%
	*# per cent * # per cent increase*	3a	1 3.13%	
6	*# per cent increase*	1a	2 6.25%	2 6.25%

All the 14 instances in pattern 1 (43.75%) are found in configuration 1a *# per cent increase*, with *# per cent* directly preceding *increase*. *# per cent* represents the 'amount of movement' (num.) and *increase* represents the 'movement' (n.), which is connected to 'the thing that moves' (n.) by the 'hinge' (prep.) *in*, e.g. "Strong sales of a key-

person insurance product underpinned the 103.1 per cent increase in corporate life insurance income" (line 45).

Four instances of pattern 2 (12.5%) are found in configuration 2a *increase of # per cent*, with the 'hinge' (prep.) *of* between *increase* and *# per cent*. *# per cent* represents the 'amount of movement', e.g. "Total impaired loans to customers at 31 December 2009 were US$31 billion, an increase of 21 per cent compared with the end of 2008" (line 65). The other instance in pattern 2 (3.13%) is found in configuration 2b *increase * * * * # per cent*. A numeral denominated in US dollar represents the 'amount of movement' (num.) together with *# per cent*, e.g. "an increase of US$7.0 billion or 201 per cent compared with 2008" (line 75).

Three instances in pattern 3 (9.38%) are found in configuration 2a *increase of # per cent*, and one instance (3.13%) is found in configuration 2c *increase * * * # per cent*. The only difference between 2a and 2c is that 2a specifies the exact 'amount of movement', e.g. "an increase of 18.5 per cent over the previous year" (line 72), while 2c uses *more than # per cent* to represent the 'amount of movement', as in "Not only does this figure represent an increase of more than 38 per cent over 2008" (line 74).

All the 4 instances in pattern 4 (12.5%) are found in configuration 1a *# per cent increase*, with *# per cent* directly preceding the 'movement' *increase* to represent the 'amount of movement', e.g. "after a 0.5 per cent increase in 2008" (line 7) and "the Hang Seng Index recovered strongly from a weak start to 2009 to record a 52 per cent increase during the year" (line 51), with *in 2008* and *during the year* as 'hinge (prep.) + time of movement (n.)'.

In pattern 5, three instances (9.38%) are found in configuration 1a *# per cent increase*, with *# per cent* representing the 'amount of movement' (num.), e.g. "Customers continued to support the Bank's environmental protection efforts with a 54.5 per cent increase in the number of accounts switching to the e-statement service during the year" (line 42). One instance (3.13%) is found in configuration 3a *# per cent * # per*

cent increase, in which two percentages represent the 'amount of movement' (num.) together, as in "brokerage business and investment funds business registered a 29.3 per cent and 236.1 per cent increase in turnover in the second half of 2009" (line 35).

Both instances in pattern 6 (6.25%) are found in configuration 1a *# per cent increase*, with a 'modifier' (adj.) added to *# per cent*, e.g. "achieve an impressive 11.7 per cent increase in residential mortgage lending to individuals" (line 47).

The three configurations are then mapped onto the six local grammatical patterns (Table 4.9c).

Table 4.9c Configurations and local grammatical patterns of *increase/per/cent*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*# per cent increase*	14 35%	pattern 1	22 55%
		4 10%	pattern 4	
		2 5%	pattern 5	
		2 5%	pattern 6	
1b	*# per cent * increase*	1 2.5%	unclassified	1 2.5%
2a	*increase of # per cent*	4 10%	pattern 2	9 22.5%
		3 7.5%	pattern 3	
		2 5%	unclassified	
2b	*increase * * * * # per cent*	2 5%	unclassified	3 7.5%
		1 2.5%	pattern 2	
2c	*increase * * * # per cent*	1 2.5%	pattern 3	1 2.5%
2d	*increase * * * * * * # per cent*	1 2.5%	unclassified	1 2.5%

2e	*increase * * * * * # * # per cent*	1 2.5%	unclassified	1 2.5%
3a	*# per cent * # per cent increase*	1 2.5%	pattern 5	2 5%
3b	*# per cent * * # per cent increase*	1 2.5%	unclassified	

Configuration 1a (N=22, 55%) is found in the most patterns, namely 1 (35%) , 4 (10%), 5 (5%), and 6 (5%), which share the sequence of 'amount of movement (num.) + movement (n.) + hinge (prep.)', with the difference in the co-selections with the semantic elements 'the thing that moves' (patterns 1, 5, and 6), 'time of movement' (patterns 4 and 5), and 'modifier of movement' (pattern 6), e.g. "a 9.1 per cent increase in cardholder spending" (line 15, pattern 1), "to record a 52 per cent increase during the year" (line 51, pattern 4), "with a 54.5 per cent increase in the number of accounts switching to the e-Statement service during the year" (line 42, pattern 5), and "reflected an underlying 37.8 per cent increase in lending to customers" (line 60, pattern 6).

Each of the other configurations is found in only one or two patterns. Some configurations are unclassified because that they do not share local grammatical pattern with others. This is due to the infrequent occurrences of the configurations and the restriction of the data size.

4.3.2 Local Grammar of upward movement in the discourse of economics

The five most frequent phraseologies indicating upward movement in the discourse of economics are *increased/HK$#/million*, *increased/per/cent*, *rose/per/cent*, *increase/HK$#/million*, and *increase/per/cent*. Altogether, fifteen semantic patterns are observed from the occurrences of the five phraseologies (Appendix 4.37A).

Pattern 1 *the thing that moves* (n.) + *movement* (v.) + *hinge* (prep.) + *amount of movement* (num.) is the canonical local grammatical pattern of the phraseologies

indicating upward movement in economic discourse due to its highest frequency (56 times, 33.33%). The other fourteen patterns are variants of the canonical pattern, all derived from the canonical pattern, in ascending order of the degree of turbulence, with some semantic elements added (patterns 2, 11, 12, 14, 15) or deleted (pattern 4), some semantic elements added and some others deleted (patterns 5, 6, 7), the sequence changed (pattern 3), the sequence changed and some semantic elements added (patterns 8, 10, 13), and the sequence changed and some semantic elements added and some others deleted (pattern 9).

The analysis of the canonical pattern and its variants indicates that in patterns 1, 2, 6, 11, 12, 14, 15, 'the thing that moves' always precedes 'movement'; while in patterns 3, 8, 10 and 13, 'the thing that moves' is always preceded by 'movement'. In the first group, the words indicating 'movement' are always verbs; while in the second group, the words indicating 'movement' are always nouns. This shows that in the cases where the words indicating 'movement' have the same part of speech, the semantic elements of the patterns tend to follow the same sequence.

In the fifteen patterns of the five phraseologies, five patterns (N=127, 75.60%) are shared by two to three phraseologies. The relationship between pattern and phraseology is shown in Table 4.37B.

Table 4.37A Distribution of each local grammatical pattern across phraseologies of upward movement in the discourse of economics

pattern	*increased/HK$# /million* (N=49: 104)	*increased/per /cent* (N=43: 91)	*rose/per/cent* (N=46: 85)	*increase/HK$#/ million* (N=41: 65)	*increase/per /cent* (N=43: 54)
pattern 1 (N=56, 33.33%)	√	√	√		
pattern 2 (N=32, 19.05%)	√	√	√		
pattern 3 (N=17, 10.12%)				√	√
pattern 4				√	√

(N=15, 8.93%)					
pattern 5 (N=14, 8.33%)				√	
pattern 6 (N=7, 4.17%)		√	√		
pattern 7 (N=4, 2.38%)					√
pattern 8 (N=4, 2.38%)				√	
pattern 9 (N=4, 2.38%)					√
pattern 10 (N=3, 1.79%)					√
pattern 11 (N=3, 1.79%)	√				
pattern 12 (N=3, 1.79%)		√			
pattern 13 (N=2, 1.19%)					√
pattern 14 (N=2, 1.19%)		√			
pattern 15 (N=2, 1.19%)		√			

Note: N refers to the number of frequency. (N=49: 104) means that 49 co-selections of the constituent words of the phraseology are identified in the 40 concordance lines randomly selected for study from 104 co-selections.

The five patterns are 1 and 2 shared by three phraseologies and patterns 3, 4, and 6 shared by two phraseologies.

Increased/per/cent and *rose/per/cent* are the most similar pair of phraseologies by having three local grammatical patterns in common (patterns 1, 2, and 6), with *increased/HK$#/million* sharing two of which with them (patterns 1 and 2).

Increase/HK$#/million and *increase/per/cent* also share two local grammatical patterns, namely patterns 3 and 4. The similarities of the two groups of phraseologies can be attributable to the similarities in their constituent words and in the parts of speech of the words indicating 'movement'.

The analysis shows that some patterns are similar in structure and constitution. After the combination of the similar patterns, the instances of the phraseologies indicating upward movement in the discourse of economics can be grouped into four Local Grammatical Patterns (Appendix 4.37C).

The original local grammatical patterns 1, 2, 11, 12, 14 and 15 are combined into Local Grammatical Pattern 1 (N=98, 58.33%). They all have verbs as the words indicating 'movement' and they all have 'the thing that moves', 'movement' and 'amount of movement' as obligatory semantic elements. 'Amount before movement', 'amount after movement' and 'time after/of movement' are the optional semantic elements of Pattern 1. 'Hinges' connect them to the other semantic elements.

The original local grammatical patterns 4, 5, 7 and 8 are combined into Local Grammatical Pattern 2 (N=37, 22.02%). They all have the noun *increase* as the word indicating 'movement', and 'movement', 'hinge' and 'amount of movement' as obligatory semantic elements. In this pattern, 'amount of movement' is always preceded by 'movement', connected by 'hinge'. 'The thing that moves' and 'amount/time before movement' are the optional semantic elements of Pattern 2. They are connected with other semantic elements by 'hinges'.

The original patterns 3, 9, 10 and 13 are combined into Pattern 3 (N=26, 15.48%), which has the noun *increase* as the word indicating 'movement', and 'movement' and 'amount of movement' as obligatory semantic elements. The major difference between Pattern 3 and Pattern 2 is in the sequence of 'movement' and 'amount of movement'. In Pattern 3, 'movement' is always preceded by 'amount of movement', while the

sequence reverses in Pattern 2. The optional semantic elements in Pattern 3 are 'modifier of movement', 'the thing that moves', 'time of movement' and 'hinges'.

The original pattern 6 becomes Pattern 4 (N=7, 4.17%). It is not combined with the other patterns because it does not have the semantic element of 'amount of movement'. The words indicating 'movement' in Pattern 4 are verbs.

The semantic elements of the upward phraseologies in the discourse of economics are shown in Table 4.37D.

Table 4.37B Distribution of semantic elements across phraseologies of upward movement in the discourse of economics

	Semantic element	*increased/HK$# /million* (N=49: 104)	*increased/per/ cent* (N=43: 91)	*rose/per/cent* (N=46: 85)	*increase/HK$#/ million* (N=41: 65)	*increase/per /cent* (N=43: 54)
1	movement	√	√	√	√	√
2	hinge	√	√	√	√	√
3	amount of movement	√	√	√	√	√
4	the thing that moves	√	√	√	√	√
5	amount before movement		√	√	√	
6	amount after movement	√	√	√		
7	time before movement		√	√		√
8	time after movement		√	√		
9	time of movement		√			√
10	modifier of movement					√

The table shows that the semantic elements of 'movement', 'hinge', 'amount of movement', and 'the thing that moves' are shared by all the phraseologies. The other two semantic elements indicating amount, i.e. 'amount before movement' and 'amount

after movement', occur in the patterns of three phraseologies respectively. *Increased/per/cent* and *rose/per/cent* contain both 'amount before movement' and 'amount after movement'; the semantic patterns of *increase/HK$#/million* have only 'amount before movement'; the semantic patterns of *increased/HK$#/million* have only 'amount after movement'. Similar to the three semantic elements indicating amount, there are also three semantic elements indicating time. They are 'time before movement', 'time after movement', and 'time of movement', which are shared by three phraseologies, two phraseologies, and two phraseologies respectively. The phraseologies with time expressions are *increased/per/cent*, *increase/per/cent*, and *rose/per/cent*. *Increased/per/cent* has all the three elements of time. *Increase/per/cent* contains 'time before movement' and 'time of movement'. *Rose/per/cent* contains 'time before movement' and 'time after movement'. The semantic patterns of the other two phraseologies, namely *increased/HK$#/million* and *increase/HK$#/million*, do not contain the semantic element of time. *Increase/per/cent* has its unique the semantic element of 'modifier of movement'.

Increased/per/cent and *rose/per/cent* are the most similar pair and share eight semantic elements. The only difference between *increased/per/cent* and *rose/per/cent* is that *increased/per/cent* has the semantic element of 'time of movement'. Although *increased/per/cent* and *increase/per/cent* are similar in the constitution of phraseology, i.e. sharing two constituent words *per* and *cent* and one word base of *increase*, they only share six semantic elements. *Increased/per/cent* has the semantic elements of 'amount before movement', 'amount after movement' and 'time after movement' that are not shared by *increase/per/cent*, and *increase/per/cent* has the semantic element of 'modifier of movement'. *Increased/HK$#/million* and *increase/HK$#/million* are also similar in the constitution of phraseology with two common constituent words *HK$* and *million* and one word base of *increase*. Both of them have five semantic elements, four of which are shared by all the five phraseologies. The different semantic element is 'amount after movement' in *increased/HK$#/million*, and 'amount before movement' in *increase/HK$#/million*. The two semantic elements are similar that both are associated with amount.

4.3.3 Phraseologies of downward movement in the discourse of economics

The most frequent five three-word phraseologies indicating downward movement in the discourse of economics are *fell/per/cent*, *declined/per/cent*, *decreased/HK$#/million*, *decreased/per/cent*, and *declined/US$#/billion*. For each phraseology, up to 40 concordance lines were randomly selected and analysed to find out its local grammatical patterns, configurations of linguistic forms, and the relation between grammar and linguistic form.

4.3.3.1 *Fell/per/cent*

In the case of *fell/per/cent*, 87 co-occurrences are found in 63 concordance lines and 55 co-selections in 53 concordance lines. Three local grammatical patterns are identified in 34 of the 40 lines analysed (85%, Table 4.10a). A detailed description of the patterns and linguistic realizations is found in Appendix 10.

Table 4.10a Three local grammatical patterns of *fell/per/cent* in the discourse of economics

	n	v	prep	num			21 61.76%
1	the thing that moves	movement	hinge	amount of movement			
	net interest income	*fell*	*by*	*11 per cent*			
	n	v	prep	num	prep	num	9 26.47%
2	the thing that moves	movement	hinge	amount of movement	hinge	amount after movement	
	net interest income	*fell*	*by*	*19.4 per cent*	*to*	*HK$2,162 million*	
	n	v	prep	num	prep	n	4 11.76%
3	the thing that moves	movement	hinge	amount of movement	hinge	time of movement	
	total personal lending	*fell*	*by*	*6 per cent*	*in*	*2009*	

The first pattern is the canonical local grammatical pattern of *fell/per/cent* due to its highest frequency (N=21, 61.76%), with 'movement' (v.), which is represented by *fell*, connected to the 'amount of movement' (num.) in the form of *# per cent* by the 'hinge' (prep.) *by*. 'The thing that moves' is represented by various noun groups, including *net fee income* (8.82%), *net interest income* (5.88%), and *operating expenses* (5.88%), e.g. "Net fee income fell by 4 per cent' (line 23), 'Net interest income fell by 11 per cent" (line 2), and "Excluding this and on an underlying basis, operating expenses fell by 4 per cent" (line 18). It is almost the same as the pattern 'V *by* amount' of the verbs in the 'increase' and 'decrease' group by Francis et al. (1996), with the prepositional phrase indicating the 'amount of movement'.

Pattern 2 (N=9, 26.47%) has 'amount after movement' (num.), represented by numerals denominated in US dollar (23.53%) or Hong Kong dollar (2.94%), added to the canonical pattern, with 'hinge' (prep.) *to* as the connection, e.g. "Net interest income fell by 19.4 per cent to HK\$2,162 million" (line 11). It can be understood as a combination of the patterns 'V *by* amount' and 'V *to* amount' of the verbs of 'increase' and 'decrease' by Francis et al. (1996). The amount following *by* indicates the 'amount of movement' and the amount following *to* indicates the 'amount after movement'.

In pattern 3 (N=4, 11.76%), 'hinge (prep.) + time of movement (n.)' is added to the canonical pattern, e.g. "Total personal lending fell by 6 per cent in 2009" (line 20). It is an expansion of the pattern 'V *by* amount' by Francis et al. (1996) by adding the 'time of movement' to further clarify the movement.

Two main configurations of the linguistic forms of *fell/per/cent* are identified, as follows:

1) *fell ... per cent* (N=38, 95%)

a. *fell by # per cent* (N=36, 90%), e.g. "Net interest income fell by 11 per cent despite higher deposit balances" (line 2)

b. *fell # per cent* (N=1, 2.5%), as in "Additionally, on-demand maintenance orders fell 5 per cent during the year" (line 17)

c. *fell significantly by # per cent* (N=1, 2.5%), as in "loan impairment charges fell significantly by 67.4 per cent" (line 57)

2) *fell ... per cent ... per cent* (N=2, 5%)

a. *fell by # per cent and # per cent* (N=1, 2.5%), as in "more than offset by reduced income from investment funds and structured investment products, which fell by 49.1 per cent and 57.1 per cent respectively" (line 55)

b. *fell by # per cent after growth of # per cent* (N=1, 2.5%), as in "GDP in 2009 fell by 2.7 per cent after growth of 2.1 per cent in 2008" (line 49)

Configuration 1a *fell by # per cent* is the canonical configuration of *fell/per/cent* as it is the most frequent (N=36, 90%). The other configurations are considered to be its variants with some words added (1c, 2a, and 2b) or with a word omitted (1b).

Table 4.10b shows the relation between the three local grammatical patterns of *fell/per/cent* and the two configurations.

Table 4.10b Local grammatical patterns and configurations of *fell/per/cent*

Pattern	Configuration	Configuration number	Freq	Total freq
1	*fell by # per cent*	1a	21 61.76%	21 61.76%
2	*fell by # per cent*	1a	9 26.47%	9 26.47%
3	*fell by # per cent*	1a	4 11.76%	4 11.76%

All the three patterns (100%) are identified in configuration 1a *fell by # per cent*. In all these 34 instances (100%), the 'hinge' *by* is always between *fell* and *# per cent*, with *# per cent* indicating the 'amount of movement' (num.), e.g. "Total personal lending fell by 6 per cent in 2009" (line 20). Pattern 1 *the thing that moves* (n.) + *movement* (v.) + *hinge* (prep.) + *amount of movement* (num.) (61.76%) is the basis for the other two patterns, e.g. "Underlying operating expenses excluding goodwill impairment fell by 4 per cent" (line 9). Pattern 2 (26.47%) has the 'amount after movement' (num.) added to pattern 1, with the 'hinge' *to* as the connection, e.g. "Other personal lending in the US fell by 23 per cent to US$69 billion" (line 14). Pattern 3 (11.76%) has 'time of movement' added to pattern 1, with the 'hinge' in the forms of *during* or *in* as the connection, e.g. "Gross Domestic Product ('GDP') fell by 5 per cent in 2009" (line 28).

Table 4.10c below shows the two main configurations of *fell/per/cent* mapped onto the three local grammatical patterns.

Table 4.10c Configurations and local grammatical patterns of *fell/per/cent*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*fell * # per cent*	21 52.5%	pattern 1	36 90%
		9 22.5%	pattern 2	
		4 10%	pattern 3	
		2 5%	unclassified	
1b	*fell # per cent*	1 2.5%	unclassified	1 2.5%
1c	*fell * * # per cent*	1 2.5%	unclassified	1 2.5%
2a	*fell * # per cent * # per cent*	1 2.5%	unclassified	1 2.5%
2b	*fell * # per cent * * * # per cent*	1 2.5%	unclassified	1 2.5%

The instances of the configuration 1a are distributed in all the three patterns. It is partly due to the high frequency of the configuration (N=36, 90%), and also the similarity of

the three patterns, as discussed in the paragraph above. The other configurations are not classified due to single occurrences.

4.3.3.2 *Declined/per/cent*

In the case of *declined/per/cent*, 94 co-occurrences are found in 65 concordance lines and 49 co-selections in 47 concordance lines. Four local grammatical patterns are identified in 38 of the 40 lines analysed (95%) (Table 4.11a). A detailed description of the patterns and linguistic realizations is found in Appendix 11.

Table 4.11a Four local grammatical patterns of *declined/per/cent* in the discourse of conomics

	n	v	prep	num	prep	n	prep	num	prep	n	
1	the thing that moves	move-ment	hinge	amount of move-ment							17 44.74 %
	fee income	*declin-ed*	*by*	*23 per cent*							
2	n	v	prep	num			prep	num			
	the thing that moves	move-ment	hinge	amount of move-ment			hinge	amount after move-ment			16 42.11 %
	total revenue	*declin-ed*	*by*	*19 per cent*			*to*	*US$66.2 billion*			
3	n	v	prep	num			prep	num	prep	n	
	the thing that moves	move-ment	hinge	amount of move-ment			hinge	amount after move-ment	hinge	time after move-ment	3 7.89 %
	personal lending	*declin-ed*	*by*	*6 per cent*			*to*	*US$11 billion*	*at*	*31 Decem-ber 2009*	
4	n	v	prep	num	prep	n	prep	num	prep	n	
	the thing that moves	move-ment	hinge	amount before move-ment	hinge	time before move-ment	hinge	amount after move-ment	hinge	time after move-ment	2 5.26 %
	two months	*declin-ed*	*from*	*5.0 per cent*	*at*	*31 Decem-ber*	*to*	*4.6 per cent*	*at*	*31 Decem-ber*	

					2008				2009	
and more delin- quencies										

In all the local grammatical patterns, the 'movement' (v.) is realized by *declined*. Pattern 1 is the canonical local grammatical pattern (N=17, 44.74%), with the 'amount of movement' (num.) in the form of *# per cent* connected to the 'movement' (v.) by the 'hinge' (prep.) *by*, e.g. "Fee income declined by 23 per cent" (line 14). It conforms to the pattern 'V *by* amount' of the verbs in the 'increase' and 'decrease' group, with the 'amount' indicating the 'amount of movement'.

Pattern 2 (N=16, 42.11%) has 'hinge (prep.) + amount after movement (num.)' added to the canonical pattern, with the 'amount of movement' (num.) realized by *# per cent* (36.84%), *# percentage point* (2.63%), or *# basic points* (2.63%) and the 'amount after movement' (num.) realized by numerals denominated in US dollar (34.21%) or Hong Kong dollar (2.63%) or *# per cent* (5.26%). The two amounts are connected with each other by the 'hinge' (prep.) *to*, e.g. "In the US Personal Financial Services business, loan impairment charges declined by 11 per cent to US$14.2 billion" (line 19), "The portion of 'medium-satisfactory' declined by one percentage point to 12.5 per cent" (line 61), and "Net interest spread declined by 31 basis points to 1.84 per cent" (line 64). Pattern 2 can be understood as a combination of the patterns 'V *by* amount' and 'V *to* amount' by Francis et al. (1996), or an expansion of the pattern 'V *by* amount' by adding another amount, namely the 'amount after movement', to clarify the result of movement.

In addition to 'hinge (prep.) + amount after movement (num.)', pattern 3 (N=3, 7.89%) also has 'hinge (prep.) + time after movement (n.)' added to the canonical local grammatical pattern, with the 'amount of movement (num.)' represented by *# per cent*, 'amount after movement (num.)' represented by *US$# billion*, and 'hinge (prep.) + time after movement (n.)' by *at 31 December 2009*, e.g. "Similarly, in Brazil, personal lending declined by 6 per cent to US$11 billion at 31 December 2009" (line 32).

In pattern 4 (N=2, 5.26%), which has the highest degree of turbulence from the canonical grammatical pattern, the 'amount of movement' (num) is not found and the 'amount before movement' (num.), 'amount after movement (num.), 'time before movement' (n.), and 'time after movement' (n.) are added, e.g. "In the vehicle finance portfolio, two months or more delinquencies declined from 5.0 per cent at 31 December 2008 to 4.6 per cent at 31 December 2009" (line 6). It can be regarded as a variation of the pattern 'V *from* amount *to* amount' by Francis et al. (1996), with 'time before movement' and 'time after movement' inserted after the two amounts. The first 'amount' represents the 'amount of movement' and the second 'amount' represents the 'amount after movement'.

Two main configurations of the linguistic forms of *declined/per/cent* are identified, as follows:

1) *declined ... per cent* (N=38, 95%)

a. *declined by # per cent* (N=35, 87.5%), e.g. "Net expense from financial instruments designated at fair value declined by 90 per cent to US$90 million" (line 12)

b. *declined by * * * to # per cent* (N=2, 5%), e.g. "Net interest spread declined by 31 basis points to 1.84 per cent" (line 64)

c. *declined by US$# billion or # per cent* (N=1, 2.5%), as in "gross loans and advances to customers (excluding the financial sector) at 31 December 2009 declined by US$83 billion or 9 per cent from 31 December 2008" (line 5)

2) *declined ... per cent ... per cent* (N=2, 5%)

declined from # per cent at 31 December 2008 to # per cent (N=2, 5%), e.g. "two months or more delinquencies declined from 5.0 per cent at 31 December 2008 to 4.6 per cent at 31 December 2009" (line 6)

Table 4.11b shows the relation between the four local grammatical patterns of *declined/per/cent* and the two configurations.

Table 4.11b Local grammatical patterns and configurations of *declined/per/cent*

Pattern	Configuration	Conf number	Freq	Total freq
1	*declined by # per cent*	1a	17 44.74%	17 44.74%
2	*declined by # per cent*	1a	14 36.84%	16 42.11%
	*declined by * * * to # per cent*	1b	2 5.26%	
3	*declined by # per cent*	1a	3 7.89%	3 7.89%
4	*declined from # per cent at 31 December 2008 to # per cent*	2	2 5.26%	2 5.26%

All the 17 instances in pattern 1 (44.74%) are found in configuration 1a *declined by # per cent*, with *# per cent* representing the 'amount of movement', which is the only amount in the pattern, e.g. "Net interest income in 2009 declined by 10 per cent" (line 27).

Pattern 2 is found in two configurations, namely 14 instances in configuration 1a *declined by # per cent* (36.84%) and 2 instances in configuration 1b *declined by * * * to # per cent* (5.26%). The preposition *by* connects *declined* to the 'amount of movement' (num.), which is always followed by the 'hinge' *to* and the 'amount after movement' (num.). In the 14 instances found in configuration 1a, the 'amount of movement' is represented by *# per cent*, and the 'amount after movement' by a numeral denominated in US dollar, e.g. "In the US Personal Financial Services business, loan impairment charges declined by 11 per cent to US$14.2 billion" (line 19). While in the 2 instances found in configuration 1b, *# per cent* represents the 'amount after movement'. The 'amount of movement' is also represented by

percentage, but in different wording, e.g. "The proportion of 'medium-satisfactory' declined by one percentage point to 12.5 per cent" (line 61).

All the 3 instances in pattern 3 (7.89%) are found in configuration 1a *declined by # per cent*. They are similar to the 14 instances of configuration 1a in pattern 2, with *# per cent* representing the 'amount of movement' and a numeral denominated in US dollar representing the 'amount after movement'. The only difference is that the 3 instances in pattern 3 (7.89%) have 'hinge + time after movement' added to the end, and the 'hinge' is always the preposition *at*, e.g. "Similarly, in Brazil, personal lending declined by 6 per cent to US$11 billion at 31 December 2009" (line 32).

The 2 instances in pattern 4 (5.26%) are found in configuration 2 *declined from # per cent at 31 December 2008 to # per cent*, with the first *# per cent* representing the 'amount before movement' and the second representing the 'amount after movement', e.g. "In the vehicle finance portfolio, two months or more delinquencies declined from 5.0 per cent at 31 December 2008 to 4.6 per cent at 31 December 2009" (line 6).

Table 4.11c below shows the mapping of the two configurations of *declined/per/cent* onto the four local grammatical patterns.

Table 4.11c Configurations and local grammatical patterns of *declined/per/cent*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*declined by # per cent*	17 42.5%	pattern 1	35 87.5%
		14 35%	pattern 2	
		3 7.5%	pattern 3	
		1 2.5%	unclassified	
1b	*declined by * * * to # per cent*	2 5%	pattern 2	2 5%
1c	*declined by US$# billion or # per cent*	1 2.5%	unclassified	1 2.5%
2	*declined from # per cent at 31*	2	pattern 4	2

			5%		5%
	December 2008 to # per cent		5%		5%

Configuration 1a (N=35, 87.5%) is found in three local grammatical patterns 1 (42.5%), 2 (35%), and 3 (7.5%). Each of configurations 1b (N=2, 5%) and 2 (N=2, 5%) is found in one pattern respectively. The difference in the number of patterns is partly due to the difference in the frequency of each configuration. 1a is the most frequent configuration (N=35, 87.5%), and is therefore found in the most diversified patterns. The instance in configuration 1c and one instance in configuration 1a are not classified because they do have any common local grammatical pattern with others.

4.3.3.3 *Decreased/HK$#/million*

In the case of *decreased/HK$#/million*, 56 co-occurrences are found in 37 concordance lines and 36 co-selections in 31 concordance lines, with four local grammatical patterns identified in 25 of the 31 lines analysed (80.65%) (Table 4.12a). A detailed description of the patterns and linguistic realizations is found in Appendix 12.

Table 4.12a Four local grammatical patterns of *decreased/HK$#/million* in the discourse of economics

	n	v	prep	num	prep	num		
1	the thing that moves	movement	hinge	amount of movement	hin-ge	amount after movement		11 44%
	net interest income	*decreased*	*by*	*11.0%*	*to*	*HK$5,795 million*		
2	n	v	prep	num				
	the thing that moves	movement	hinge	amount of movement				8 32%
	time, call and notice	*decreased*	*by*	*HK$30,028 million, or*				

	deposits			*9.6%*				
3	n	v		num	prep	num		4 16%
	the thing that moves	movement		amount of movement	hin-ge	amount after movement		
	the Group's capital expenditures	*decreased*		*32%*	*to*	*total HK$19,576 million*		
4	n	v		num	prep	num	prep	n	
	the thing that moves	movement		amount of movement	hin-ge	amount after movement	hinge	time of move-ment	2 8%
	the Group's consolidated gross interest expense and other finance costs of subsidiaries, before capitalisation,	*decreased*		*45%*	*to*	*total HK$9,889 million*	*in*	*2009*	

In all the four local grammatical patterns of *decreased/HK$#/million,* the 'movement' (v.) is realized by *decreased*. Local grammatical pattern 1 is the canonical local grammatical pattern (N=11, 44%). The 'amount of movement' (num.), in the form of *#%* (36%), *HK$# million, or #%* (4%), or *approximately HK$# million, or #%* (4%), is connected to the 'movement' (v.) by the 'hinge' (prep.) *by* and to the 'amount after movement' (num.) in the form of *HK$# million* by the 'hinge' (prep.) *to*, e.g. "Net interest income decreased by 11.0% to HK$5,795 million" (line 2). It can be regarded as a combination of the patterns 'V *by* amount' and 'V *to* amount' of the verbs in the 'increase' and 'decrease' group by Francis et al. (1996), with the 'amount' after *by* indicating the 'amount of movement' and the 'amount' after *to* indicating the 'amount

after movement'. It can also be considered to be an expansion of the pattern 'V *by* amount' (Francis et al., 1996) by adding another 'amount' to specify the result of movement.

Pattern 2 (N=8, 32%) has 'hinge (prep.) + amount after movement (num.)' omitted from the canonical pattern, e.g. "Commission from funds distribution decreased by HK\$121 million, or 55.5%" (line 4). This pattern is almost the same as the pattern 'V *by* amount' by Francis et al. (1996), with the 'amount' recognised as 'amount of movement' in pattern 2.

Pattern 3 (N=4, 16%) has the lowest degree of turbulence from the canonical pattern, with only the 'hinge' (prep.) *by* between 'movement' (v.) and 'amount of movement' (num.) omitted, e.g. "In 2009, the Group's capital expenditures decreased 32% to total HK\$19,576 million" (line 1). It can be regarded as a combination of 'V amount' and 'V *to* amount' (Francis et al., 1996), with the first 'amount' referring to the 'amount of movement' and the second 'amount' after *to* referring to 'amount after movement'.

Pattern 4 (N=2, 8%) has the first 'hinge' (prep.) *by* omitted from the canonical pattern and 'hinge (prep.) + time of movement (n.)' added to the end, e.g. "depreciation and amortisation expenses, which includes the depreciation of networks and amortisation of licence fees, content and other rights decreased 38% to HK\$9,098 million in 2009" (line 24). Pattern 4 is not only a combination of the patterns 'V amount' and 'V *to* amount', but also has 'time of movement' added to further specify the movement.

Two main configurations of the linguistic forms of *decreased/HK\$#/million* have been identified, as follows:

1) *decreased … HK\$# million* (N=26, 83.87%)

a. *decreased by HK\$# million* (N=10, 32.26%), e.g. "Meanwhile, fees and commission expenses decreased by HK\$7 million or 0.3%" (line 14)

b. *decreased by #% to HK$# million* (N=9, 29.03%), e.g. "Net interest income decreased by 11.0% to HK$5,795 million" (line 2)

c. *decreased #% to HK$# million* (N=4, 12.90%), e.g. "The segment contribution from service operations decreased 21% to HK$1,189.2 million" (line 22)

d. *decreased #% to total HK$# million* (N=2, 6.45%), e.g. "In 2009, the Group's capital expenditures decreased 32% to total HK$19,576 million" (line 1)

e. *decreased #% from 2008 to HK$# million* (N=1, 3.23%), as in "After translation to Hong Kong dollars, 3 Group's total revenue decreased 5% from 2008 to HK$57,590 million" (line 31)

2) *decreased ... HK$# million ... HK$# million* (N=5, 16.13%)

a. *decreased #% to HK$# million from HK$# million* (N=1, 3.23%), as in "Revenues decreased 17% to HK$24,415 million from HK$29,360.8 million" (line 8)

b. *decreased to HK$# million against HK$# million* (N=1, 3.23%), as in "For the year under review, the contribution from property sales segment decreased to HK$507.3 million against HK$2,704.1 million" (line 19)

c. *decreased by approximately HK$# million, or #%, to HK$# million* (N=1, 3.23%), as in "Classified or impaired loans decreased by approximately HK$369 million, or 17.3%, to HK$1,769 million" (line 32)

d. *decreased from HK$# million in 2008 to HK$# million* (N=1, 3.23%), as in "Profit attributable to shareholders of HHR decreased from HK$2,009 million in 2008 to HK$188 million in 2009" (line 37)

e. *decreased by HK$# million, or #%, to HK$# million* (N=1, 3.23%), as in "The Group's net interest income decreased by HK$2,225 million, or 11.0%, to HK$17,932 million in 2009" (line 15)

The four local grammatical patterns of *decreased/HK$#/million* are mapped onto the two configurations (Table 4.12b).

Table 4.12b Local grammatical patterns and configurations of *decreased/HK$#/million*

Pattern	Configuration	Conf number	Freq	Total freq
1	*decreased by #% to HK$# million*	1b	9 36%	
	decreased by approximately HK$# million, or #%, to HK$# million	2c	1 4%	11 44%
	decreased by HK$# million, or #%, to HK$# million	2e	1 4%	
2	*decreased by HK$# million*	1a	8 32%	8 32%
3	*decreased #% to HK$# million*	1c	3 12%	4 16%
	decreased #% to total HK$# million	1d	1 4%	
4	*decreased #% to HK$# million*	1c	1 4%	2 8%
	decreased #% to total HK$# million	1d	1 4%	

Pattern 1 is dominated by configuration 1b in the form of *decreased by #% to HK$# million* (N=9, 81.81%), with *#%* representing the 'amount of movement' (num.), and *HK$# million* representing the 'amount after movement' (num.), e.g. "The EBIT reported by this operation decreased by 37% to HK$4,079 million" (line 3). In each of the other two instances, the 'amount of movement' (num.) is represented by a percentage and a numeral denominated in Hong Kong dollar in the form of *HK$# million*. One of them is found in configuration 2e *decreased by HK$# million, or #%, to HK$# million*, as in "The Group's net interest income decreased by HK$2,225 million, or 11.0%, to HK$17,932 million" (line 15). The other is found in

configuration 2c *decreased by approximately HK$# million, or #%, to HK$# million*, with *approximately* added to the 'amount of movement' (num.), as in "Classified or impaired loans decreased by approximately HK$369 million, or 17.3%, to HK$1,769 million" (line 32).

All the instances of pattern 2 (N=8, 32%) are found in configuration 1a *decreased by HK$# million*, where the 'amount of movement' (num.) is the only amount involved in the pattern. It is represented by two numerals, namely *HK$# million* and *#%*, e.g. "Commission from funds distribution decreased by HK$121 million, or 55.5%" (line 4).

The instances in pattern 3 are found in configurations 1c *decreased #% to HK$# million* (N=3, 12%) and 1d *decreased #% to total HK$# million* (N=1, 4%), with *#%* representing the 'amount of movement' (num.) and *HK$# million* representing the 'amount after movement' (num.). No word is found between *decreased* and *#%*. The only difference between 1c and 1d is in that *HK$# million* in 1c is directly preceded by the 'hinge' *to*, while in configuration 1d, *HK$# million* and the 'hinge' *to* are intervened by *total* to further specify the 'amount after movement' (num.), e.g. "The segment contribution from service operations decreased 21% to HK$1,189.2 million" (line 22, configuration 1c) and "In 2009, the Group's capital expenditures decreased 32% to total HK$19,576 million" (line 1, configuration 1d).

Pattern 4 (N=2, 8%) has 'hinge + time of movement' added to pattern 3. The two patterns are similar having the same set of configurations, namely 1c *decreased #% to HK$# million* (4%), as in "depreciation and amortisation expenses, which includes the depreciation of networks and amortisation of licence fees, content and other rights decreased 38% to HK$9,098 million in 2009" (line 24) and 1d *decreased #% to total HK$# million* (4%), as in "the Group's consolidated gross interest expense and other finance costs of subsidiaries, before capitalisation, decreased 45% to total HK$9,889 million in 2009" (line 30).

The two configurations of *decreased/HK$#/million* are then mapped onto the four local grammatical patterns (Table 4.12c).

Table 4.12c Configurations and local grammatical patterns of *decreased/HK$#/million*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*decreased by HK$# million*	8 25.81%	pattern 2	10 32.26%
		2 6.45%	unclassified	
1b	*decreased by #% to HK$# million*	9 29.03%	pattern 1	9 29.03%
1c	*decreased #% to HK$# million*	3 9.68%	pattern 3	4 12.90%
		1 3.23%	pattern 4	
1d	*decreased #% to total HK$# million*	1 3.23%	pattern 3	2 6.45%
		1 3.23%	pattern 4	
1e	*decreased #% from 2008 to HK$# million*	1 3.23%	unclassified	1 3.23%
2a	*decreased #% to HK$# million from HK$# million*	1 3.23%	unclassified	1 3.23%
2b	*decreased to HK$# million against HK$# million*	1 3.23%	unclassified	1 3.23%
2c	*decreased by approximately HK$# million, or #%, to HK$# million*	1 3.23%	pattern 1	1 3.23%
2d	*decreased from HK$# million in 2008 to HK$# million*	1 3.23%	unclassified	1 3.23%
2e	*decreased by HK$# million, or #%, to HK$# million*	1 3.23%	pattern 1	1 3.23%

As shown in Table 4.12c, each configuration is found in one (1a, 1b, 2c, and 2e) or two local grammatical patterns (1c and 1d). A few configurations are left unclassified, because each of them has its unique grammatical feature, and therefore does not form a pattern.

4.3.3.4 *Declined/US$#/billion*

In the case of *declined/US$#/billion*, 50 co-occurrences are found in 38 concordance lines and 34 co-selections in 27 concordance lines, with four local grammatical patterns identified in 23 of the 27 lines analysed (85.19%) (Table 4.13a). A detailed description of the patterns and linguistic realizations is found in Appendix 13.

Table 4.13a Four local grammatical patterns of *declined/US$#/billion* in the discourse of economics

	n	v	prep	num	prep	n	prep	num	prep	n	
1	the thing that moves	move-ment	hinge	amount of move-ment			hinge	amount after move-ment			13 56.52%
	loan impair-ment charges	*declin-ed*	*by*	*11 per cent*			*to*	*US$14.2 billion*			
2	n	v	prep	num			prep	num			
	the thing that moves	move-ment	hinge	amount before move-ment			hinge	amount after move-ment			4 17.39%
	balances	*declin-ed*	*from*	*US$96 billion*			*to*	*US$78 billion*			
3	n	v	prep	num	prep	n	prep	num	prep	n	
	the thing that moves	move-ment	hinge	amount before move-ment	hinge	time before move-ment	hinge	amount after move-ment	hinge	time after move-ment	3 13.04%
	mortgage lending	*declin-ed*	*from*	*US$22 billion*	*at*	*31 Decem-ber 2008*	*to*	*US$16 billion*	*at*	*31 Decem-ber 2009*	
4	n	v	prep	num			prep	num	prep	n	
	the thing that moves	move-ment	hinge	amount of move-ment			hinge	amount after move-ment	hinge	time after move-ment	3 13.04%
	personal lending	*declin-ed*	*by*	*6 per cent*			*to*	*US$11 billion*	*at*	*31 Decem-ber 2009*	

Pattern 1 (N=13, 56.52%) is the canonical local grammatical pattern, with *# per cent* representing the 'amount of movement' (num.) and *US$# billion* representing the 'amount after movement' (num.), e.g. "loan impairment charges declined by 11 per cent to US$14.2 billion" (line 9). It can be considered as a combination of the patterns 'V *by* amount' and 'V *to* amount', with the verbs in these patterns indicating 'increase' or 'decrease' (Francis et al., 1996). The 'amount' after *by* indicates the 'amount of movement' and the 'amount' after *to* indicates the 'amount after movement'.

In pattern 2 (N=4, 17.39%), the 'amount of movement' (num.) is replaced by the 'amount before movement' (num.) in the linguistic form of *US$# billion*, with the preposition *from* as the 'hinge' connecting the 'amount before movement' (num.) to the 'movement' (v.) *declined*, e.g. "two months or more delinquent balances declined from US$2.0 billion to US$1.8 billion" (line 10). It has its counterpart 'V *from* amount *to* amount' in Francis et al. (1996), with the first 'amount' indicating the 'amount of movement' and the second 'amount' indicating the 'amount after movement'.

Pattern 3 (N=3, 13.04%) has the highest degree of turbulence from the canonical pattern with two instances of 'amount' and two instances of 'time' involved. The 'amount of movement' (num.) in pattern 1 is replaced by the 'amount before movement' (num.) and 'hinge (prep.) + time before movement (n.) + hinge (prep.) + amount after movement (num.) + hinge (prep.) + time after movement (n.)' is added, e.g. "mortgage lending declined from US$22 billion at 31 December 2008 to US$16 billion at 31 December 2009" (line 17). Compared with the pattern 'V *from* amount *to* amount' by Francis et al. (1996), pattern 3 has 'time before movement' and 'time after movement' inserted to clarify the movement.

In pattern 4 (N=3, 13.04%), 'hinge (prep.) + time after movement (n.)' in the linguistic form of *at 31 December 2009* is added to the canonical pattern, e.g. "personal lending declined by 6 per cent to US$11 billion at 31 December 2009" (line 28). Pattern 4 is not only a combination of the patterns 'V *by* amount' and 'V *to* amount', but also has 'time after movement' added to further specify the movement.

Three main configurations of the linguistic forms of *declined/US$#/billion* are identified, as below:

1) *declined ... US$# billion* (N=19, 70.37%)

a. *declined by # per cent to US$# billion* (N=16, 59.26%), e.g. "loan impairment charges declined by 11 per cent to US$14.2 billion" (line 9)

b. *declined * US$# billion* (N=3, 11.11%), e.g. "Operating expenses declined to US$8.4 billion" (line 15)

2) *declined ... US$# billion ... US$# billion* (N=7, 25.93%)

a. *declined from US$# billion to US$# billion* (N=4, 14.81%), e.g. "two months or more delinquent balances declined from US$2.0 billion to US$1.8 billion" (line 10)

b. *declined from US$# billion at 31 December 2008 to US$# billion* (N=2, 7.41%), e.g. "In HSBC Bank USA, mortgage lending declined from US$22 billion at 31 December 2008 to US$16 billion at 31 December 2009" (line 17)

c. *declined from US$# billion in 2008 to US$# billion* (N=1, 3.70%), as in "two months or more delinquent balances in the Mortgage Services portfolio declined from US$4.7 billion in 2008 to US$4.5 billion at 31 December 2009" (line 20)

3) *US$# billion declined* (N=1, 3.70%), as in "Commercial real estate and other property-related lending at 31 December 2009 of US$100 billion declined by 8 per cent from 31 December 2008 on a constant currency basis" (line 8)

Table 4.13b shows the relation between the four local grammatical patterns of *declined/US$#/billion* and the three configurations.

Table 4.13b Local grammatical patterns and configurations of *declined/US$#/billion*

Pattern	Configuration	Conf number	Freq	Total freq
1	*declined by # per cent to US$# billion*	1a	13 56.52%	13 56.52%
2	*declined from US$# billion to US$# billion*	2a	4 17.39%	4 17.39%
3	*declined from US$# billion at 31 December 2008 to US$# billion*	2b	2 8.70%	3 13.04%
	declined from US$# billion in 2008 to US$# billion	2c	1 4.35%	
4	*declined by # per cent to US$# billion*	1a	3 13.04%	3 13.04%

All the instances of pattern 1 (N=13, 56.52%) are found in configuration 1a *declined by # per cent to US$# billion*. In these instances, the first word between *declined* and *US$# billion* is always the 'hinge' (prep.) *by*, followed by *# per cent*, which represents the 'amount of movement' (num.), and then the 'hinge' *to* connecting *US$# billion*, which represents the 'amount after movement' (num.), e.g. "Net fee income declined by 7 per cent to US$4.8 billion" (line 23).

The 4 instances of pattern 2 (17.39%) are all found in configuration 2a *declined from US$# billion to US$# billion*, with the first *US$# billion* representing the 'amount before movement' (num.) and the second *US$# billion* representing the 'amount after movement' (num.). They are connected to the other elements by the 'hinges' *from* and *to* respectively, e.g. "Stated-income mortgage balances in HSBC Finance declined from US$5.7 billion to US$3.9 billion as the portfolio continued to run off" (line 19).

Two instances in pattern 3 (8.70%) are found in configuration 2b *declined from US$# billion at 31 December 2008 to US$# billion* and one instance (4.35%) is found in configuration 2c *declined from US$# billion in 2008 to US$# billion*. Pattern 3 has 'time before movement' (n.) and 'time after movement' (n.) added to pattern 2. In the two instances of configuration 2b (8.70%), the 'time before movement' is represented

by exact date in the form of *31 December 2008*, and the 'time after movement' is represented by *31 December 2009*, with both connected to other elements by the 'hinge' (prep.) *at*, e.g. "In HSBC Bank USA, mortgage lending declined from US$22 billion at 31 December 2008 to US$16 billion at 31 December 2009" (line 17). In configuration 2c, they are represented by years in the forms of *2008* and *2009* respectively, connected with the 'hinge' (prep.) *in*, as in "two months or more delinquent balances in the Mortgage Services portfolio declined from US$4.7 billion in 2008 to US$4.5 billion at 31 December 2009" (line 20).

All the 3 instances in pattern 4 (13.04%) are found in configuration 1a *declined by # per cent to US$# billion*. This pattern has the 'time after movement' (n.) added to the end of pattern 1, e.g. "Similarly, in Brazil, personal lending declined by 6 per cent to US$11 billion at 31 December 2009" (line 28).

Table 4.13c shows the three configurations of *declined/US$#/billion* mapped onto the four local grammatical patterns.

Table 4.13c Configurations and local grammatical patterns of *declined/US$#/billion*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*declined by # per cent to US$# billion*	13 48.15%	pattern 1	16 59.26%
		3 11.11%	pattern 4	
1b	*declined * US$# billion*	3 11.11%	unclassified	3 11.11%
2a	*declined from US$# billion to US$# billion*	4 14.81%	pattern 2	4 14.81%
2b	*declined from US$# billion at 31 December 2008 to US$# billion*	2 7.41%	pattern 3	2 7.41%
2c	*declined from US$# billion in 2008 to US$# billion*	1 3.70%	pattern 3	1 3.70%
3	*US$# billion declined*	1 3.70%	unclassified	1 3.70%

Configuration 1a *declined by # per cent to US$# billion* is realized in patterns 1 (N=13, 48.15%) and 4 (N=3, 11.11%), with the difference in the co-selection with 'time after movement' (n.) in pattern 4, e.g. "Financial instruments on which credit quality has been assessed declined by 8 per cent to US$2,216 billion at 31 December 2009" (line 29, pattern 4) and "Reported net fee income declined by 9 per cent to US$20 billion" (line 27, pattern 1).

The 3 instances (11.11%) in configuration 1b *declined * US$# billion*, with the preposition *by* (7.41%) or *to* (3.70%) between them, are not classified into grammatical patterns due to their unique grammatical features.

Configuration 2a *declined from US$# billion to US$# billion* (N=4, 14.81%) is realized in pattern 2, with the first *US$# billion* representing the 'amount before movement' (num.) and the second representing the 'amount after movement' (num.), e.g. "In the US credit card portfolio, two months or more delinquent balances declined from US$2.0 billion to US$1.8 billion" (line 10).

Configurations 2b (N=2, 7.41%) and 2c (N=1, 3.70%) are both realized in pattern 3, with the difference in the linguistic form of 'time before movement' (n.), e.g. "In HSBC Bank USA, mortgage lending declined from US$22 billion at 31 December 2008 to US$16 billion at 31 December 2009" (line 17, configuration 2b) and "two months or more delinquent balances in the Mortgage Services portfolio declined from US$4.7 billion in 2008 to US$4.5 billion at 31 December 2009" (line 20, configuration 2c).

In configuration 3 (N=1, 3.70%), *US$# billion* occurs as part of the noun group, indicating 'the thing that moves', as in "Commercial real estate and other property-related lending at 31 December 2009 of US$100 billion declined by 8 per cent from 31 December 2008" (line 8). It is not classified into any local grammatical patterns due to its unique grammatical feature.

4.3.3.5 *Decreased/per/cent*

In the case of *decreased/per/cent*, 43 co-occurrences are found in 37 concordance lines and 30 co-selections in 30 concordance lines. Three local grammatical patterns are identified in 29 of the 30 lines analysed (96.67%) (Table 4.14a). A detailed description of the patterns and linguistic realizations is found in Appendix 14.

Table 4.14a Three local grammatical patterns of *decreased/per/cent* in the discourse of economics

	n	v	prep	num	prep	num	prep	n	
1	the thing that moves	movement	hinge	amount of movement					18 62.07%
	deposits by banks	*decreased*	*by*	*10 per cent*					
2	n	v	prep	num	prep	num			
	the thing that moves	movement	hinge	amount of movement	hinge	amount after movement			9 31.03%
	balances	*decreased*	*by*	*30 per cent*	*to*	*US$2.7 billion*			
3	n	v			prep	num	prep	n	
	the thing that moves	movement			hinge	amount after movement	hinge	time after movement	2 6.90%
	two months and more delinquen-cy rates	*decreased*			*to*	*17.3 per cent*	*at*	*31 December 2009*	

In all the three local grammatical patterns of *decreased/per/cent*, the 'movement' (v.) is realized by *decreased*. The first pattern *the thing that moves* (n.) + *movement* (v.) + *hinge* (prep.) + *amount of movement* (num.) is the canonical local grammatical pattern of the phraseology (N=18, 62.07%), with the 'amount of movement' (num.) in the form of *# per cent* connected to the 'movement' (v.) by the 'hinge' (prep.) *by*, e.g. "Deposits by banks decreased by 10 per cent" (line 6). It is almost the same as the pattern 'V *by* amount' by Francis et al. (1996), with the 'amount' indicating the 'amount of movement'.

Pattern 2 (N=9, 31.03%) has 'hinge (prep.) + amount after movement (num.)' added to the canonical pattern, with the 'amount of movement' (num.) represented by *# per cent* (27.59%) or *# basis points* (3.45%), which is connected to the 'amount after movement' (num.) in the form of *US$# billion* (27.59%) or *# per cent* (3.45%) by the 'hinge' (prep.) *to*, e.g. "Reported net fee income decreased by 12 per cent to US$17.7 billion" (line 20) and "Net interest margin decreased by 46 basis points to 1.90 per cent compared with 2008" (line 35). It can be understood as a combination of the patterns 'V *by* amount' and 'V *to* amount', with the 'amount' after *by* indicating the 'amount of movement' and the 'amount' after *to* indicating the 'amount after movement'.

Pattern 3 (N=2, 6.90%) has a higher degree of turbulence from the canonical local grammatical pattern, with 'amount of movement' (num.) omitted and 'amount after movement (num.) + hinge (prep.) + time after movement (n.)' added, e.g. "two months or more delinquency rates decreased to 17.3 per cent at 31 December 2009" (line 32). Compared with the pattern 'V *to* amount' (Francis et al., 1996), pattern 3 has 'time after movement' specified in the language of movement.

Regarding configurations of *decreased/per/cent*, the constituent words of the phraseology are always in the sequence of *decreased … per cent*, without any positional variants. Two configurations are identified, as follows:

1) *decreased * # per cent* (N=29, 96.67%), e.g. "Salaries and other costs decreased by 3.7 per cent, reflecting the decline in average headcount and other staff-related costs" (line 9)

2) *decreased by # basis points to # per cent* (N=1, 3.33%), as in "Net interest margins decreased by 46 basis points to 1.90 per cent compared with 2008" (line 35)

The three local grammatical patterns of *decreased/per/cent* are mapped onto the two configurations (Table 4.14b).

Table 4.14b Local grammatical patterns and configurations of *decreased/per/cent*

Pattern	Configuration	Configuration number	Freq	Total freq
1	*decreased * # per cent*	1	18 62.07%	18 62.07%
2	*decreased * # per cent*	1	8 27.59%	9 31.03%
	decreased by # basis points to # per cent	2	1 3.45%	
3	*decreased * # per cent*	1	2 6.90%	2 6.90%

As shown in Table 4.14b, all the instances in pattern 1 (N=18, 62.07%) are found in configuration 1 *decreased * # per cent*, with preposition *by* between *decreased* and *# per cent*. *# per cent* represents the 'amount of movement', which is the only amount specified in the clause, e.g. "In Card and Retail Services, loan impairment charges decreased by 4 per cent, due to lower loan balances" (line 16).

Based on pattern 1, pattern 2 (N=9, 31.03%) has the 'hinge' (prep.) *to* and the 'amount after movement' added. In pattern 2, eight instances (27.59%) are found in configuration 1 *decreased * # per cent*, in which *# per cent* represents the 'amount of movement' (num.) and a numeral denominated in US dollar represents the 'amount after movement' (num.). The preposition *by* is between *decreased* and *# per cent*, e.g. "Loan impairment charges in US consumer finance decreased by 12 per cent to US$13.5 billion" (line 5). The other instance (3.45%) is found in configuration 2 *decreased by # basis points to # per cent*, where *# per cent* represents the 'amount after movement' (num.) and another percentage in the form of *# basis points* represents the 'amount of movement' (num.), as in "Net interest margin decreased by 46 basis points to 1.90 per cent compared with 2008" (line 35).

The 2 instances in pattern 3 (6.90%) are also found in configuration 1 *decreased * # per cent*, with *# per cent* representing the 'amount after movement' (num.), which is the only amount specified in the clause. In these instances, the only word between

decreased and *# per cent* is the preposition *to*, e.g. "Two months or more delinquency rates decreased to 22.7 per cent at 31 December 2009" (line 33).

Table 4.14c shows the two configurations of *decreased/per/cent* mapped onto the three local grammatical patterns.

Table 4.14c Configurations and local grammatical patterns of *decreased/per/cent*

Conf no.	Configuration	Freq	Pattern	Total freq
1	*decreased * # per cent*	18 60%	pattern 1	29 96.67%
		8 26.67%	pattern 2	
		2 6.67%	pattern 3	
		1 3.33%	unclassified	
2	*decreased by # basis points to # per cent*	1 3.33%	pattern 2	1 3.33%

Configuration 1 (N=29, 96.67%) is realized in all the three local grammatical patterns, with pattern 1 being the most frequent (N=18, 60%). The instances in patterns 1 and 2 have the preposition *by* between *decreased* and *# per cent*; while the instances in pattern 3 have the preposition *to*, e.g. "Salaries and other costs decreased by 3.7 per cent" (line 9, pattern 1), "Loan impairment charges in US consumer finance decreased by 12 per cent to US$13.5 billion" (line 5, pattern 2), and "Two months or more delinquency rates decreased to 22.7 per cent at 31 December 2009" (line 33, pattern 3). The pattern diversity of configuration 1 is due to its frequency. The other instance in configuration 1 (3.33%) is not classified due to its grammatical feature. The only instance of configuration 2 (3.33%) is realized in pattern 2, with *# basis points* representing the 'amount of movement' (num.) and *# per cent* representing the 'amount after movement' (num.), as in "Net interest margin decreased by 46 basis points to 1.90 per cent compared with 2008" (line 35).

4.3.4 Local Grammar of downward movement in the discourse of economics

The top five phraseologies indicating downward movement in the discourse of economics are *fell/per/cent*, *declined/per/cent*, *decreased/HK$#/million*, *declined/US$#/billion* and *decreased/per/cent*. Nine local grammatical patterns are observed from the occurrences of these five phraseologies (Appendix 4.38A).

Pattern 1 *the thing that moves* (n.) + *movement* (v.) + *hinge* (prep.) + *amount of movement* (num.) is the canonical local grammatical pattern of the phraseologies indicating downward movement in the discourse of economics due to its highest frequency (N=64, 46.04%). The other eight patterns are variants of the canonical pattern. They are derived from the canonical pattern with some semantic elements added (patterns 2, 3, 7) or some semantic elements added and some others deleted (patterns 4, 5, 6, 8, 9). All the variants follow the same sequence as the canonical pattern, because all the five phraseologies have verbs as the words indicating 'movement'.

The relationship between pattern and phraseology is presented in Table 4.38B:

Table 4.38A Distribution of each local grammatical pattern across phraseologies of downward movement in the discourse of economics

	fell/per/cent (N=42: 55)	*declined/per /cent* (N=42: 49)	*decreased/HK$#/ million* (N=36)	*declined/US$#/ billion* (N=34)	*decreased /per/cent* (N=30)
pattern 1 (N=64, 46.04%)	√	√	√		√
pattern 2 (N=48, 34.53%)	√	√	√	√	√
pattern 3 (N=6, 4.32%)		√		√	
pattern 4 (N=5, 3.60%)		√		√	

pattern 5 (N=4, 2.88%)				√	
pattern 6 (N=4, 2.88%)			√		
pattern 7 (N=4, 2.88%)	√				
pattern 8 (N=2, 1.44%)			√		
pattern 9 (N=2, 1.44%)					√

The first four local grammatical patterns (N=123, 88.49%) are shared by two to five phraseologies. Patterns 2 and 1 are the most common local grammatical patterns by being shared by five and four phraseologies. Patterns 3 and 4 are shared by two phraseologies.

The nine patterns can be further combined into two Local Grammatical Patterns due to the similarities of some patterns in structure and constitution (Appendix 4.38C).

The original patterns 1, 2, 3, 6, 7 and 8 are combined into Pattern 1 (N=128, 92.09%), where the 'amount of movement' is specified. The other two obligatory semantic elements in Pattern 1 are 'the thing that moves' and 'movement'. It has 'amount after movement', 'time after/of movement' and 'hinge' as optional semantic elements.

The original patterns 4, 5 and 9 are combined into Pattern 2 (N=11, 7.91%). Pattern 2 does not contain the semantic element 'amount of movement' as in Pattern 1, but has 'amount after movement' as obligatory semantic element. The other obligatory semantic elements are 'the thing that moves', 'movement' and 'hinge'. It has 'amount before movement', 'time before movement' and 'time after movement' as optional semantic elements. 'Hinges' connect them to the other semantic elements.

The semantic elements of downward phraseologies in the discourse of economics are represented in Table 4.38D.

Table 4.38B Distribution of semantic elements across phraseologies of downward movement in the discourse of economics

		fell/per/cent (N=42: 55)	*declined/per/cent* (N=42: 49)	*decreased/HK$# /million* (N=36)	*declined/US$#/ billion* (N=34)	*decreased/ per/cent* (N=30)
1	movement	√	√	√	√	√
2	hinge	√	√	√	√	√
3	the thing that moves	√	√	√	√	√
4	amount of movement	√	√	√	√	√
5	amount after movement	√	√	√	√	√
6	time after movement		√		√	√
7	amount before movement		√		√	
8	time before movement		√		√	
9	time of movement	√		√		

Five semantic elements are shared by all the five phraseologies indicating downward movement in economic discourse. They are 'movement', 'hinge', 'the thing that moves', 'amount of movement' and 'amount after movement'. 'Time after movement' is shared by three phraseologies, namely *declined/per/cent*, *decreased/per/cent* and *declined/US$#/billion*. 'Amount before movement' and 'time before movement' are both shared by *declined/per/cent* and *declined/US$#/billion*. 'Time of movement' is shared by *fell/per/cent* and *decreased/HK$#/million*. None of the five phraseologies has unique semantic element.

The table reveals high similarity in the semantic elements of the five phraseologies of downward movement in the discourse of economics. They have five semantic elements in common, namely 'movement', 'hinge', 'the thing that moves', 'amount of

movement', and 'amount after movement'. There are two pairs of phraseologies with the same sets of semantic elements, namely *fell/per/cent* vs. *decreased/HK$#/million* and *declined/per/cent* vs. *declined/US$#/billion*.

The great similarity among the phraseologies in local grammatical patterns and semantic elements can be attributable to the similarities in the constituent words of the phraseologies. The five phraseologies are all constituted by a verb of past tense with the meaning of movement (e.g. *fell*, *declined*) and two other words associated with amount (e.g. *HK$#/million*, *per/cent*).

4.3.5 Phraseologies of unspecified movement in discourse of economics

The most frequent five three-word phraseologies indicating the meaning of unspecified movement in the discourse of economics are *changes/fair/value*, *movement/liabilities/net*, *change/fair/value*, *movements/fair/value*, and *changes/income/interest*. For each phraseology, up to 40 concordance lines were randomly selected and analysed to find out its local grammatical patterns and configurations of linguistic forms.

4.3.5.1 *Changes/fair/value*

In the case of *changes/fair/value*, 87 co-occurrences are found in 81 concordance lines and 74 co-selections in 74 concordance lines. Four local grammatical patterns are identified in 36 of the 40 lines analysed (90%) (Table 4.15a). A detailed description of the patterns and linguistic realizations is found in Appendix 15.

Table 4.15a Four local grammatical patterns of *changes/fair/value* in the discourse of economics

			n	prep	n	prep	n	
1			movement	hinge	the thing that moves	hinge	specifications of the thing that moves	23 63.89%
			changes	*in*	*fair value*	*of*	*long-term debt issued and related derivatives*	
2			n	prep	n			6 16.67%
			movement	hinge	the thing that moves			
			changes	*in*	*fair value*			
3	n	prep	n	prep	n	prep	n	5 13.89%
	share	hinge	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	
	the Group's attributable share	*of*	*changes*	*in*	*fair value*	*of*	*investment properties*	
4			n	n	prep	n		2 5.56%
			the thing that moves	movement	hinge	specifications of the thing that moves		
			fair value	*changes*	*of*	*interest rate swap contracts*		

The first pattern (N=23, 63.89%) is the canonical local grammatical pattern of the phraseology due to its highest frequency. The 'movement' (n.) is in the forms of *changes* (61.11%), e.g. "Changes in fair value of long-term debt issued and related derivatives" (line 50) or *any changes* (2.78%), as in "consequently any changes in the fair value of these financial investments" (line 81). The 'thing that moves' (n.), represented by *fair value* (52.78%), e.g. "Changes in fair value of investment properties recorded a deficit of HK$1,841.2 million" (line 9) or *the fair value* (11.11%), e.g. "associated with changes in the fair value of issued structured notes and other hybrid instrument liabilities" (line 78), is connected to the 'movement' (n.) by the 'hinge' (prep.) *in*. 'The thing that moves' is specified by the 'specifications of the thing that moves' (n.), which is in the forms of *long-term debt issued and related*

derivatives (27.78%) and *investment properties* (13.89%), e.g. "Changes in fair value of long-term debt issued and related derivatives" (line 43), "Changes in fair value of investment properties" (line 20). 'The thing that moves' and its 'specifications' are always connected with each other by the 'hinge' (prep.) *of*. Fifteen instances of the first pattern (41.67%) are found in the form of table items, e.g. "Changes in fair value of long-term debt issued and related derivatives" (line 38); and the other 8 instances (22.22%) are clauses, e.g. "changes in the fair value of investment properties were recorded in the revaluation reserve" (line 75). It is similar to the pattern 'N *in* n' by Francis et al. (1998). In their pattern, *the fair value of investment properties* would be recognised as 'n'; while in the current study, which focuses on the language of movement rather than the whole English language, it is further divided into 'the thing that moves', 'hinge', and 'specifications of the thing that moves' to further clarify the relationship between the elements.

The other three local grammatical patterns are considered variants of the canonical pattern with various degrees of turbulence. Pattern 2 (N=6, 16.67%) follows the sequence of pattern 1, but has the 'specifications of the thing that moves' omitted. Five instances (13.89%) occur in the form of table items, e.g. "Changes in fair value" (line 53) and one instance (2.78%) is a sentence, as in "Other changes in fair value include gains and losses arising from changes in the fair value of derivatives" (line 70). It has its counterpart 'V *in* n' in Francis et al. (1998), with 'n' representing 'the thing that moves'.

In pattern 3 (N=5, 13.89%), 'share (n.) + hinge (prep.)' is added to the beginning of the canonical pattern, e.g. "adjusted by excluding the Group's attributable share of changes in fair value of investment properties" (line 26).

Pattern 4 (N=2, 5.56%) has the highest degree of turbulence from the canonical pattern with a different sequence in 'movement' (n.) and 'the thing that moves' (n.). For example, in "fair value changes of available-for-sale securities" (line 17), the 'movement' (n.) *changes* is preceded by 'the thing that moves' (n.) in the form of *fair*

value, which is specified by the 'specifications of the thing that moves' represented by *available-for-sale securities*. This pattern is not found in the patterns of the nouns in the 'increase' and 'decrease' group by Francis et al. (1996), since *change* or *changes* is not found preceded by another noun in their study. It may be a feature of the language of movement in financial settings.

Two main configurations of the linguistic forms of *changes/fair/value* have been identified, as follows:

1) *changes ... fair value* (N=35, 87.5%)

a. *changes in fair value* (N=31, 77.5%), e.g. "Changes in fair value of investment properties" (line 20).

b. *changes in the fair value* (N=4, 10%), e.g. "associated with changes in the fair value of issued structured notes and other hybrid instrument liabilities" (line 78).

2) *fair value ... changes* (N=5, 12.5%)

a. *fair value changes* (N=4, 10%), e.g. "unamortised loan facilities fees and premiums or discounts on issue and fair value changes of interest rate swap contracts" (line 17).

b. *fair value * * * * * * * * * * * changes* (N=1, 2.5%), as in "The movement in fair value of these debt issues includes the effect of own credit spread changes and any ineffectiveness in the economic relationship between the related swaps and own debt" (line 4).

Configuration 1a is considered the canonical configuration of the phraseology due to its highest frequency. The other configurations are its variants with various degrees of turbulence by inserting words (1b), changing the sequence (2a), and changing the sequence and inserting words (2b).

Table 4.15b shows the relation between the four local grammatical patterns of *changes/fair/value* and the two configurations.

Table 4.15b Local grammatical patterns and configurations of *changes/fair/value*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*changes in fair value*	1a	19 52.78%	23 63.89%
	changes in the fair value	1b	4 11.11%	
2	*changes in fair value*	1a	6 16.67%	6 16.67%
3	*changes in fair value*	1a	5 13.89%	5 13.89%
4	*fair value changes*	2a	2 5.56%	2 5.56%

The instances of local grammatical pattern 1 are found in configurations 1a *changes in fair value* (N=19, 52.78%), e.g. "Changes in fair value of long-term debt issued and related derivatives" (line 43) and 1b *changes in the fair value* (N=4, 11.11%), e.g. "associated with changes in the fair value of issued structured notes and other hybrid instrument liabilities" (line 78), with the only difference in whether *fair value* is preceded by the determiner *the*.

The instances in local grammatical patterns 2 (N=6, 16.67%) and 3 (N=5, 13.89%) are all found in configuration 1a *changes in fair value*, e.g. "Changes in fair value" (line 54, pattern 2) and "the Group's attributable share of changes in fair value of investment properties" (line 26, pattern 3).

Those in local grammatical pattern 4 (N=2, 5.56%) are found in configuration 2a *fair value changes*, e.g. "fair value changes of interest rate swap contracts" (line 17).

Table 4.15c below shows the mapping of the two configurations of *changes/fair/value* onto the four local grammatical patterns.

Table 4.15c Configurations and local grammatical patterns of *changes/fair/value*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*changes in fair value*	19 47.5%	pattern 1	31 77.5 %
		6 15%	pattern 2	
		5 12.5%	pattern 3	
		1 2.5%	unclassified	
1b	*changes in the fair value*	4 10%	pattern 1	4 10%
2a	*fair value changes*	2 5%	pattern 4	4 10%
		2 5%	unclassified	
2b	*fair value * * * * * * * * * * * changes*	1 2.5%	unclassified	1 2.5%

Table 4.15c shows that configuration 1a *changes in fair value* (N=31, 77.5%) is found in three of the four local grammatical patterns, namely patterns 1 (47.5%), 2 (15%) and 3 (12.5%), due to its predominant frequency. Configurations 1b *changes in the fair value* and 2a *fair value changes* are found in one local grammatical pattern. Configuration 2b *fair value * * * * * * * * * * * changes* is not classified into any local grammatical pattern due to its unique grammatical feature. The constituent words of the phraseology in all the other instances are within a noun group, e.g. "Changes in fair value of investment properties recorded a deficit of HK$1,841.2 million" (line 9), while those in the instance of configuration 2b are in a clause, as in "The movement in fair value of these debt issues include the effect of own credit spread changes and any ineffectiveness in the economic relationship between the related swaps and own debt" (line 4). It is due to this reason that it is not classified into any local grammatical patterns.

4.3.5.2 *Movement/liabilities/net*

In the case of *movement/liabilities/net*, 40 co-occurrences are found in 40 concordance lines and 40 co-selections in 40 concordance lines. Four local grammatical patterns are identified in the 40 lines analysed (100%) (Table 4.16a). A detailed description of the patterns and linguistic realizations is found in Appendix 16.

Table 4.16a Four local grammatical patterns of *movement/liabilities/net* in the discourse of economics

#				n	conj	n	prep	n	28 70%
1				claims	hinge	movement	hinge	the thing that moves	
				net insurance claims incurred	*and*	*movement*	*in*	*liabilities to policy-holders*	
	adj	n	prep	n	conj	n	prep	n	7 17.5%
	modifier of movement	movement	hinge	the thing that moves					
2	modifier of movement	movement	hinge	claims	hinge	movement	hinge	the thing that moves	
	a corres-ponding	*increase*	*in*	*net insurance claims incurred*	*and*	*movement*	*in*	*liabilities to policy-holders*	
	n		prep	n	conj	n	prep	n	3 7.5%
	movement		hinge	the thing that moves					
3	movement		hinge	claims	hinge	movement	hinge	the thing that moves	
	the rise		*in*	*net insurance claims incurred*	*and*	*movement*	*in*	*policyhold-ers' liabilities*	
			adj	n	conj	n	prep	n	2 5%
			compa-rison	claims	hinge	movement	hinge	the thing that moves	
4			*higher*	*net insurance claims incurred*	*and*	*movement*	*in*	*liabilities to policyhold-ers*	

In all the 40 instances, *movement*, *liabilities* and *net* are found in two noun groups connected by the 'hinge' (conj.) *and*. The adjective *net* always occurs in the first noun group, and *movement* and *liabilities* in the second noun group, e.g. "net insurance claims incurred and movement in liabilities to policyholders" (line 8).

Pattern 1 is the canonical local grammatical pattern of the phraseology (N=28, 70%). The semantic element 'claims' (n.), represented by *net insurance claims incurred* (N=27, 67.5%) or *net insurance claims* (N=1, 2.5%), is connected to the 'movement' (n.) in the linguistic form of *movement* by the hinge (conj.) *and*. 'The thing that moves' (n.), represented by *liabilities to policyholders* (N=26, 65%) or *policyholders' liabilities* (N=2, 5%), is always connected to the 'movement' by the hinge (prep.) *in*. Although the linguistic choices vary slightly, they, namely *net insurance claims incurred* vs. *net insurance claims* and *liabilities to policyholders* vs. *policyholders' liabilities*, all convey the same meaning, e.g. "net insurance claims incurred and movement in liabilities to policyholders" (line 16), "net insurance claims and movement in liabilities to policyholders" (line 39), and "net insurance claims incurred and movement in policyholders' liabilities" (line 4). Pattern 1 refers to an accounting item in annual reports which evaluates the performance of insurance business. It is the basis for all the other three local grammatical patterns, with additional semantic elements.

Two instances of 'movements' are included in patterns 2 and 3. In addition to the unspecified movement in the form of *movement*, upward movement or downward movement is also involved in the patterns. Pattern 2 (N=7, 17.5%) has 'modifier of movement + movement + hinge' added to the beginning of the canonical pattern. The 'modifier of movement' (adj.) is represented by *corresponding* (12.5%) or *equivalent* (5%). The 'movement' (n.) added is in the form of *increase* (7.5%), *decrease* (5%), or *reduction* (5%), connected to the canonical pattern by the hinge (prep.) *in*. The canonical pattern in pattern 2 represents 'the thing that moves'. For example, in the concordance line "they were offset by a corresponding increase in 'Net insurance claims and movement in liabilities to policyholders'" (line 36), *Net insurance claims*

and movement in liabilities to policyholders represents 'the thing that moves', with *increase* as its corresponding 'movement'.

Compared to pattern 2, pattern 3 (N=3, 7.5%) does not have a 'modifier' to qualify the upward or downward movement; in other words, it only adds 'movement + hinge' to the beginning of the canonical pattern, e.g. "The increase in net insurance claims incurred and movement in liabilities to policyholders mainly reflected the improvement in investment market performance" (line 12). The first 'movement' is represented by *rise* (2.5%), *increase* (2.5%), or *reduction* (2.5%).

In pattern 4 (N=2, 5%), the comparative adjective *higher*, which indicates 'comparison', is added to the canonical pattern, e.g. "Growth in insurance business resulted in higher net insurance claims incurred and movement in liabilities to policyholders" (line 28).

These four local grammatical patterns are rather complicated and do not have counterparts in Francis et al.'s (1998) study of noun patterns. They may be considered as unique features of the language of movement in corporate annual reports.

Regarding configurations of *movement/liabilities/net*, the constituent words of the phraseology are always in the sequence of *net ... movement ... liabilities*, without any positional variants. The eight configurations of the linguistic forms of the phraseology are presented below:

1) *net insurance claims incurred and movement in liabilities to policyholders* (N=25, 62.5%) is the canonical form of the phraseology due to its frequency, e.g. "Net insurance claims incurred and movement in liabilities to policyholders decreased by 5 per cent" (line 7).

2) * * * *in net insurance claims incurred and movement in liabilities to policyholders* (N=4, 10%), e.g. "there was a corresponding increase in net insurance claims incurred and movement in liabilities to policyholders" (line 17)

3) * * * *in net insurance claims and movement in liabilities to policyholders* (N=3, 7.5%), e.g. "they were offset by a corresponding increase in 'Net insurance claims and movement in liabilities to policyholders" (line 36)

4) *net insurance claims incurred and movement in policyholders' liabilities* (N=2, 5%), e.g. "Net insurance claims incurred and movement in policyholders' liabilities rose by HK$541 million, or 4.7 per cent" (line 4)

5) *the * in net insurance claims incurred and movement in liabilities to policyholders* (N=2, 5%), e.g. "The increase in net insurance claims incurred and movement in liabilities to policyholders mainly reflected the improvement in investment market performance" (line 12)

6) *net insurance claims incurred and movement in liabilities to policyholders* (N=2, 5%), e.g. "Growth in insurance business resulted in higher net insurance claims incurred and movement in liabilities to policyholders" (line 28)

7) *net insurance claims and movement in liabilities to policyholders* (N=1, 2.5%), as in "Net insurance claims and movement in liabilities to policyholders fell by 40 per cent" (line 39)

8) *the * in net insurance claims incurred and movement in policyholders' liabilities* (N=1, 2.5%), as in "The increase more than offset the rise in net insurance claims incurred and movement in policyholders' liabilities" (line 6)

The four local grammatical patterns of *movement/liabilities/net* are mapped onto the eight configurations (Table 4.16b).

Table 4.16b Local grammatical patterns and configurations of *movement/liabilities/net*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*net insurance claims incurred and movement in liabilities to policyholders*	1	25 62.5%	28 70%
	net insurance claims incurred and movement in policyholders' liabilities	4	2 5%	
	net insurance claims and movement in liabilities to policyholders	7	1 2.5%	
2	** * * in net insurance claims incurred and movement in liabilities to policyholders*	2	4 10%	7 17.5%
	* * * in net insurance claims and movement in liabilities to policyholders	3	3 7.5%	
3	*the * in net insurance claims incurred and movement in liabilities to policyholders*	5	2 5%	3 7.5%
	the * in net insurance claims incurred and movement in policyholders' liabilities	8	1 2.5%	
4	*higher net insurance claims incurred and movement in liabilities to policyholders*	6	2 5%	2 5%

Pattern 1 is found in three configurations 1, 4, and 7, with configuration 1 being predominant (N=25, 62.5%). Configuration 4 (N=2, 5%) substitutes *liabilities to policyholders* in configuration 1 with possessive case in the form of *policyholders' liabilities*. Configuration 7 (N=1, 2.5%) omits *incurred* in configuration 1. These changes do not affect the meaning of the phraseology, which refers to an item specific to insurance business, which is embodied by figures.

Pattern 2 is identified in configurations 2 and 3. Compared to configuration 1, configuration 2 (N=4, 10%) has four additional words, realized in determiner + adjective + noun + *in*, e.g. "there was a corresponding increase in net insurance claims incurred and movement in liabilities to policyholders" (line 17). Compared to configurations 1 and 2, configuration 3 (N=3, 7.5%) has four additional words and one word (*incurred*) less, e.g. "is partially offset by a corresponding reduction in 'Net insurance claims and movement in liabilities to policyholders'" (line 37).

Pattern 3 is identified in configurations 5 and 8. Configuration 5 (N=2, 5%) adds *the ** *in* to the beginning of the canonical configuration. The word between *the* and *in* are associated with the meaning of upward or downward movement, represented by *increase* and *reduction*, e.g. "The increase in net insurance claims incurred and movement in liabilities to policyholders mainly reflected the improvement in investment market performance" (line 12), and "The reduction in net insurance claims incurred and movement in liabilities to policyholders primarily reflected the impact of markedly weaker investment" (line 15). Configuration 8 (N=1, 2.5%) adds the three words and also changes the sequence of *liabilities to policyholders* in configuration 1 into *policyholders' liabilities*, as in "The increase more than offset the rise in net insurance claims incurred and movement in policyholders' liabilities" (line 6).

Pattern 4 is found in configuration 6 (N=2, 5%), which adds *higher* to the beginning of canonical configuration, e.g. "Growth in insurance business resulted in higher net insurance claims incurred and movement in liabilities to policyholders" (line 28).

The analysis shows that each local grammatical pattern is confined to one to three configurations. In the local grammatical pattern with three configurations, i.e. pattern 1, one configuration significantly predominant in frequency (N=25, 62.5%).

The eight configurations of *movement/liabilities/net* are then mapped onto the four local grammatical patterns (Table 4.16c).

Table 4.16c Configurations and local grammatical patterns of *movement/liabilities/net*

Conf no.	Configuration	Freq	Pattern	Total freq
1	*net insurance claims incurred and movement in liabilities to policyholders*	25 62.5%	pattern 1	25 62.5%
2	** * * in net insurance claims incurred and movement in liabilities to policyholders*	4 10%	pattern 2	4 10%
3	** * * in net insurance claims and movement in liabilities to policyholders*	3 7.5%	pattern 2	3 7.5%
4	*net insurance claims incurred and*	2	pattern 1	2

	movement in policyholders' liabilities	5%		5%
5	*the * in net insurance claims incurred and movement in liabilities to policyholders*	2 5%	pattern 3	2 5%
6	*higher net insurance claims incurred and movement in liabilities to policyholders*	2 5%	pattern 4	2 5%
7	*net insurance claims and movement in liabilities to policyholders*	1 2.5%	pattern 1	1 2.5%
8	*the * in net insurance claims incurred and movement in policyholders' liabilities*	1 2.5%	pattern 3	1 2.5%

Table 4.16c shows that each configuration of linguistic forms has only one local grammatical pattern. Tables 4.16b and 4.16c show the close relationship between local grammatical pattern and linguistic form, which is partly due to the rather fixed structure of the phraseology.

4.3.5.3 *Change/fair/value*

In the case of *change/fair/value*, 29 co-occurrences are found in 23 concordance lines and 24 co-selections in 22 concordance lines. Five local grammatical patterns are identified in 17 of the 22 lines analysed (77.27%) (Table 4.17a). A detailed description of the patterns and linguistic realizations is found in Appendix 17.

Table 4.17a Five local grammatical patterns of *change/fair/value* in the discourse of economics

	n	prep		n	prep	n	prep	n	
1				movement	hinge	the thing that moves	hinge	specifications of the thing that moves	8 47.06%
				change	*in*	*fair value*	*of*	*investment properties*	
2	n	prep		n	prep	n	prep	n	
	profit	hinge		movement	hinge	the thing that moves	hinge	specifications of the thing that moves	3 17.65%
	operating profit	*be-fore*		*change*	*in*	*fair value*	*of*	*investment properties*	
3		n			prep	n			2 11.76%
		movement			hinge	the thing that moves			

		the change		in	fair value			
	n	prep		n	prep	n			2 11.76%
4	influence of the movement	hinge		movement	hinge	the thing that moves			
	gains (losses)	*on*		*change*	*in*	*fair value*			
	n	prep	n	n	prep	n			2 11.76%
5	influence of the movement	hinge	the thing that moves	movement	hinge	specifications of the thing that moves			
	the effect	*of*	*fair value*	*change*	*on*	*investment properties*			

Pattern 1 *movement* (n.) + *hinge* (prep.) + *the thing that moves* (n.) + *hinge* (prep.) + *specifications of the thing that moves* (n.) is the canonical local grammatical pattern of the phraseology (N=8, 47.06%), e.g. "Change in fair value of investment properties" (line 9). It is similar to the pattern 'N *in* n', with 'N' representing words in the 'increase' and 'decrease' group (Francis et al., 1998). Since Francis et al. (1998) study the whole general English, 'n' is not further classified. In the current study, which focuses on the language of movement in corporate annual reports, it is further divided into 'the thing that moves' (n.), 'hinge' (prep.), and 'specifications of the thing that moves' (n.) so as to make the pattern clearer.

In pattern 2 (N=3, 17.65%), 'profit (n.) + hinge (prep.)' are added to the beginning of the canonical pattern, e.g. "Operating profit before change in fair value of investment properties" (line 10). They all occur as items in tables, which are embodied by figures. It can be regarded as an expansion of the pattern 'N *in* n' by Francis et al. (1998).

In pattern 3 (N=2, 11.76%), the 'specifications of the thing that moves' (n.) is omitted from the canonical pattern, e.g. "For all issued debt securities, discounted cash flow modeling is used to separate the change in fair value that may be attributable to HSBC's credit spread movements" (line 20). It is typical of the pattern 'N *in* n' by Francis et al. (1998), with 'N' representing 'movement' and 'n' representing 'the thing that moves'.

Pattern 4 (N=2, 11.76%) has 'specifications of the thing that moves' (n.) omitted from the canonical pattern and 'influence of the movement (n.) + hinge (prep.)' added to the beginning, e.g. "Gains (losses) on change in fair value" (line 16). It is an item that needs to be embodied by figure. The nature of the 'influence' is not able to be identified until reading the figure.

In local grammatical pattern 5 (N=2, 11.76%), the sequence of 'movement' (n.) and 'the thing that moves' (n.) is changed, with 'influence of the movement (n.) + hinge (prep.)' added to the beginning, e.g. "Underlying profit attributable to the Company's shareholders excluded the effect of fair value change on investment properties" (line 4).

Three configurations of the linguistic forms of *change/fair/value* are identified in the 22 concordance lines, as follows:

1) *change * fair value* (N=16, 72.73%), e.g. "Operating profit before change in fair value of investment properties" (line 10). In 15 instances (68.18%), the word between *change* and *fair value* is the preposition *in*. In 1 instance (4.55%), the word is *of*, as in "due to deficit in change of fair value of investment properties held by jointly controlled entities" (line 19).

2) *fair value change* (N=4, 18.18%), e.g. "Fair value change gains (losses)" (line 5).

3) *change * * fair value * * * * * fair value* (N=2, 9.09%), e.g. "the change of net fair value gains (losses) on assets at fair value" (line 23).

The five local grammatical patterns of *change/fair/value* are mapped onto the three configurations (Table 4.17b).

Table 4.17b Local grammatical patterns and configurations of *change/fair/value*

Local	Configuration	Conf	Freq	Total

grammatical pattern		number		freq
1	*change * fair value*	1	6 35.29%	8 47.06%
	*change * * fair value * * * * * fair value*	3	2 11.76%	
2	*change * fair value*	1	3 17.65%	3 17.65%
3	*change * fair value*	1	2 11.76%	2 11.76%
4	*change * fair value*	1	2 11.76%	2 11.76%
5	*fair value change*	2	2 11.76%	2 11.76%

Pattern 1 is identified in configurations 1 (N=6, 35.29%) and 3 (N=2, 11.76%). In configuration 1, the 'movement' (n.) is represented by *change* (29.41%) or *the change* (5.88%). 'The thing that moves' (n.) is represented by *fair value*, which is connected to the 'movement' by the 'hinge' (prep.) *in*. The 'specifications of the movement' (n.), in the form of *investment properties* (29.41%) or *issued debt securities attributable to the Group's own credit spread* (5.88%), is connected to 'the thing that moves' by the 'hinge' (prep.) *of*, e.g. "Change in fair value of investment properties" (line 14), "the change in fair value of issued debt securities attributable to the Group's own credit spread" (line 21). In configuration 3, the 'movement' (n.) is represented by *the change*, which is connected to 'the thing that moves' (n.) in the form of *net fair value gains (losses)* by the 'hinge' (prep.) *of*. The semantic element 'specifications of the thing that moves' (n.), represented by *assets at fair value*, is connected to 'the thing that moves' (n.) by the 'hinge' (prep.) *on*, e.g. "the change of net fair value gains (losses) on assets at fair value" (line 2).

Patterns 2 (N=3, 17.65%), 3 (N=2, 11.76%), and 4 (N=2, 11.76%) are all identified in configuration 1 *change * fair value*. In all these 7 instances, the word between *change* and *fair value* is always the 'hinge' (prep.) *in*. *Change* (local grammatical patterns 2 and 4) or *the change* (local grammatical pattern 3) represents the 'movement' (n.) and *fair value* represents 'the thing that moves' (n.). *Movement (n.) + hinge (prep.) + the*

thing that moves (*n.*) are contained in all the three local grammatical patterns. These also constitute the complete local grammatical form of pattern 3, e.g. "discounted cash flow modeling is used to separate the change in fair value that may be attributable to HSBC's credit spread movements" (line 20). In pattern 2, 'profit' (n.), represented by *operating profit*, and 'hinge' (prep.), represented by *before* (11.76%) or *after* (5.88%), are added to the left of 'movement' (n.), and 'hinge (prep.) + specifications of the thing that moves (n.)', represented by *of investment properties*, is added to the right of 'the thing that moves' (n.), e.g. "Operating profit before change in fair value of investment properties" (line 10), and "Operating profit after change in fair value of investment properties" (line 1). In pattern 4, 'influence (n.) + hinge (prep.)', represented by *gains (losses) on*, is added to the left of *change*, e.g. "Gains (losses) on change in fair value" (line 16).

Pattern 5 (N=2, 11.76%) is identified in configuration 2 *fair value change*. It is the only local grammatical pattern in which 'movement (n.)' is preceded by 'the thing that moves (n.)', e.g. "Underlying profit attributable to the Company's shareholders excluded the effect of fair value change on investment properties" (line 4).

Table 4.17c shows the three configurations of *change/fair/value* mapped onto the five local grammatical patterns.

Table 4.17c Configurations and local grammatical patterns of *change/fair/value*

Conf no.	Configuration	Freq	Pattern	Total freq
1	*change * fair value*	6 27.27%	pattern 1	16 72.73%
		3 13.64%	pattern 2	
		2 9.09%	pattern 3	
		2 9.09%	pattern 4	
		3 13.64%	unclassified	

2	*fair value change*	2 9.09%	pattern 5	4 18.18%
		2 9.09%	unclassified	
3	*change * * fair value * * * * * fair value*	2 9.09%	pattern 1	2 9.09%

Configuration 1 is the most diversified configuration, realized in four local grammatical patterns. The diversity can be attributable to its high frequency (N=16, 72.73%). Each of configurations 2 and 3 is realized in one local grammatical pattern. A few instances are not classified due to their unique grammatical form, due to its low frequency and the limitation of the data size.

4.3.5.4 *Movements/fair/value*

In the case of *movements/fair/value*, 36 co-occurrences are found in 28 concordance lines and 20 co-selections in 20 concordance lines. Five local grammatical patterns are identified in 15 of the 20 lines analysed (75%) (Table 4.18a). A detailed description of the patterns and linguistic realizations is found in Appendix 18.

Table 4.18a Five local grammatical patterns of *movements/fair/value* in the discourse of economics

				n	prep	n	prep	n	
1				movement	hinge	the thing that moves	hinge	specifica-tions of the thing that moves	5 33.3%
				movements	*in*	*fair value*	*of*	*own debt attributable to credit spread*	
			n	n	prep	n			
2			the thing that moves	movement	hinge	specifications of the thing that moves			3 20%
			fair value	*movements*	*on*	*own debt attributable to credit spread*			
3		adj	n	n					3

Pattern	c1	c2	c3	c4	c5	c6	c7	c8	%
		modi-fier	the thing that moves	movement					20%
		gross	*fair value*	*movements*					
4				n	prep	n			2 13.3%
				movement	hinge	the thing that moves			
				movements	*in*	*fair value*			
5	n	prep	n	n	prep	n			2 13.3%
	influence of the move-ment	hinge	the thing that moves	movement	hinge	specifications of the thing that moves			
	the effect	*of*	*fair value*	*movements*	*in res-pect of*	*credit spread on own debt*			

In all the five local grammatical patterns, 'movement' (n.) is represented by *movements*. Local grammatical pattern 1 is the canonical local grammatical pattern (N=5, 33.33%). 'The thing that moves' is connected to the 'movement' by the 'hinge' (prep.) *in*; the 'specifications of the thing that moves' is connected to 'the thing that moves' by the 'hinge' (prep.) *of*, e.g. "movements in fair value of own debt attributable to credit spread" (line 20). It is similar to the pattern 'N *in* n' by Francis et al. (1998), with 'N' represented as 'movement' in the current study and 'n' represented as 'the thing that moves (n.) + hinge (prep.) + specifications of the thing that moves (n.)'.

In pattern 2 (N=3, 20%), the sequence of 'movement' and 'the thing that moves' in the canonical pattern is changed. 'Specifications of the thing that moves' is connected to the 'movement' by the 'hinge' (prep.) *on* (13.33%) or *across* (6.67%), e.g. "fair value movements on own debt attributable to credit spread" (line 19), and "The main drivers of the reduction were fair value movements across the entire portfolio arising from lower levels of volatility" (line 14).

Pattern 3 (N=3, 20%) has a high degree of turbulence when compared to the canonical pattern. The sequence of 'movement' (n.) and 'the thing that moves' (n.) is changed; 'hinge (prep.) + specifications of the thing that moves (n.)' is not found; 'modifier' (adj.) is added to the left of 'the thing that moves' (n.), e.g. "Gross fair value movements" (line 12).

In pattern 4 (N=2, 13.33%), the sequence of semantic elements in the canonical pattern remains the same but 'hinge (prep.) + specifications of the thing that moves (n.)' is not found, e.g. "assets in such portfolios are managed according to movements in fair value" (line 7). It is typical in the pattern 'N *in* n' (Francis et al., 1998), with 'N' represented as 'movement' and 'n' represented as 'the thing that moves' in the current study.

In pattern 5 (N=2, 13.33%), the sequence of 'movement' (n.) and 'the thing that moves' (n.) in the canonical pattern is changed, with 'influence of the movement (n.) + hinge (prep.)' added to the left, e.g. "eliminating the impact of fair value movements in respect of credit spread changes on HSBC's own debt" (line 17). Patterns 2, 3, and 5 do not have their counterparts in the patterns of the nouns of 'increase' and 'decrease' group in Francis et al. (1998), since the nouns indicating movement are not found preceded by other nouns. It can be attributable the feature of the language of movement in corporate annual reports.

Two main configurations of the linguistic forms of *movements/fair/value* are identified, as below:

1) *fair value ... movements* (N=11, 55%)

a. *fair value movements* (N=10, 50%), e.g. "As a percentage of net operating income excluding the effect of fair value movements in respect of credit spread on own debt" (line 16). It is the canonical configuration of the phraseology due to its highest frequency.

b. *fair value * * movements* (N=1, 5%), as in "The change in fair value related to movements in the Group's credit spread on long-term debt resulted in an expense of US$6.5 billion in 2009" (line 11). In this instance, *the change in fair value* is connected to *movements in the Group's credit spread on long-term debt* by the adjective group *related to* to constitute a complete noun group, which functions as the subject of the sentence.

2) *movements ... fair value* (N=9, 45%)

a. *movements in fair value* (N=4, 20%), e.g. "as assets in such portfolios are managed according to movements in fair value" (line 7). In these 4 instances, the preposition *in* is always between *movements* and *fair value*.

b. *movements in the fair value* (N=4, 20%), e.g. "in particular excluding a large income from movements in the fair value of the Group's own long-term debt" (line 24). In the 4 instances, the preposition *in* and the determiner *the* are always between *movements* and *fair value*.

c. movements * * * * fair value (N=1, 5%), as in "Movements in the level of fair value adjustments do not necessarily result in the recognition of profits" (line 6). In this instance, movements and fair value are not only intervened by the preposition *in* and the determiner *the*, but also *level* and *of*.

The five local grammatical patterns of *movements/fair/value* are mapped onto the two configurations (Table 4.18b).

Table 4.18b Local grammatical patterns and configurations of *movements/fair/value*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*movements in fair value*	2a	2	5

			13.33%	33.33%
	movements in the fair value	2b	2 13.33%	
	*movements * * * * fair value*	2c	1 6.67%	
2	*fair value movements*	1a	3 20%	3 20%
3	*fair value movements*	1a	3 20%	3 20%
4	*movements in fair value*	2a	2 13.33%	2 13.33%
5	*fair value movements*	1a	2 13.33%	2 13.33%

Pattern 1, identified in configurations2a (13.33%), 2b (13.33%) and 2c (6.67%), are positional variants of *movements ... fair value*, with a difference in the number of intervening words. They are always followed by the preposition *of* and a noun group, which specifies *fair value*, e.g. "movements in the fair value of HSBC's own long-term debt from underlying performance" (line 22).

Patterns 2 (20%), 3 (20%) and 5 (13.33%) are all identified in configuration 1a, with *movements* directly preceded by *fair value*, e.g. "the impact of fair value movements in respect of credit spread changes on HSBC's own debt" (line 17).

Pattern 4 (13.33%) is identified in configuration 2a, with the preposition *in* between *movements* and *fair value*, e.g. "assets in such portfolios are managed according to movements in fair value" (line 7).

Table 4.18c shows the two configurations of *movements/fair/value* mapped onto the five local grammatical patterns.

Table 4.18c Configurations and local grammatical patterns of *movements/fair/value*

Conf no.	Configuration	Freq	Pattern	Total freq

1a	*fair value movements*	3 15%	pattern 2	10 50%
		3 15%	pattern 3	
		2 10%	pattern 5	
		2 10%	unclassified	
1b	*fair value * * movements*	1 5%	unclassified	1 5%
2a	*movements in fair value*	2 10%	pattern 1	4 20%
		2 10%	pattern 4	
2b	*movements in the fair value*	2 10%	pattern 1	4 20%
		2 10%	unclassified	
2c	*movements * * * * fair value*	1 5%	pattern 1	1 5%

Configuration 1a *fair value movements* is realized in patterns 2 (N=3, 15%), 3 (N=3, 15%) and 5 (N=2, 10%). These three patterns are different as to whether there are 'specifications of the thing that moves' (patterns 2 and 5), e.g. "fair value movements on own debt attributable to credit spread" (line 19), whether the 'movement' is modified (pattern 3), e.g. "gross fair value movements" (line 4), and whether there is the 'influence of the movement' (pattern 5), e.g. "the effect of fair value movements in respect of credit spread on own debt" (line 16).

Configuration 2a *movements in fair value* is found in patterns 1 (N=2, 10%) and 4 (N=2, 10%), with a difference in whether 'the thing that moves' is specified (pattern 1), e.g. "movements in fair value of own debt" (line 21) or not (pattern 4), e.g. "as assets in such portfolios are managed according to movements in fair value" (line 7).

Configuration 2b *movements in the fair value* and 2c *movements * * * * fair value* are found in pattern 1. In configuration 2b, *fair value* represents 'the thing that moves', e.g. "movements in fair value of own debt attributable to credit spread" (line 20); while in

configuration 2c, *fair value* is part of 'specifications of the thing that moves', e.g. "movements in the level of fair value adjustments" (line 6).

A few instances are not classified due to their unique grammatical forms partly due to their infrequent occurrence and the small data size.

4.3.5.5 *Changes/income/interest*

In the case of *changes/income/interest*, 16 co-selections are found in 16 concordance lines, with three local grammatical patterns identified in 9 of the 16 lines analysed (56.25%) (Table 4.19a). A detailed description of the patterns and linguistic realizations is found in Appendix 19.

Table 4.19a Three local grammatical patterns of *changes/income/interest* in the discourse of economics

	n	prep	n	prep	n	prep	n	
1	influence of the movement	hinge	movement	hinge	the thing that moves	hinge	the thing being influenced	4 44.44%
	the impact	*of*	*changes*	*in*	*volume and interest rates*	*on*	*the Group's interest income and interest expense*	
2			n	prep	n			3 33.33%
			movement	hinge	the thing that moves			
			changes	*in*	*interest income*			
3	n	prep	n	prep	n			2 22.22%
	analysis	hinge	movement	hinge	the thing that moves			
	analysis	*of*	*changes*	*in*	*net interest income*			

In all the three local grammatical patterns of *changes/income/interest*, *changes* represents the 'movement', followed by the 'hinge' (prep.) *in* + 'the thing that moves' (n.). Pattern 1 is the canonical local grammatical pattern (N=4, 44.44%), with 'influence of the movement (n.) + hinge (prep.) *of*' added to the left of 'movement' (n.) and 'hinge (prep.) *on* + the thing being influenced (n.)' added to the right of 'the thing that moves' (n.), e.g. "The table below shows the impact of changes in volume and interest rates on the Group's interest income and interest expense" (line 3).

Pattern 2 (N=3, 33.33%) is the plainest form by being constituted by '*movement* (n.) + *hinge* (prep.) + *the thing that moves*' (n.)', e.g. "Changes in interest income" (line 6). It is similar to the pattern 'N *in* n' in Francis et al. (1998), with 'N' represented as 'movement' and 'n' represented as 'the thing that moves'.

In pattern 3 (N=2, 22.22%), 'analysis (n.) + hinge (prep.)' is added to the left of 'movement (n.), e.g. "Analysis of changes in net interest income" (line 9).

Seven configurations of the linguistic forms of *changes/income/interest* are identified, as below:

1) *changes ... interest income* (N=5, 31.25%)

a. *changes in net interest income* (N=2, 12.5%), e.g. "Analysis of changes in net interest income" (line 9).

b. *changes * interest income* (N=1, 6.25%), as in "Changes in interest income" (line 6).

c. *changes * * * interest income* (N=1, 6.25%), as in "The impact of changes in volume on interest income and expense" (line 10).

d. *changes * * * * interest income* (N=1, 6.25%), as in "Actual changes in the Bank's net interest income" (line 2).

2) *changes ... interest income ... interest* (N=3, 18.75%)

a. *changes in net interest income and net interest expense* (N=2, 12.5%), e.g. "The following tables allocate changes in net interest income and net interest expense between volume and rate" (line 14).

b. *changes * * * interest income * * * interest* (N=1, 6.25%), as in "HSBC Holdings' principal exposure to changes in its net interest income from movements in interest rates arises on short-term cash balances" (line 4)

3) *changes ... interest ... interest income* (N=2, 12.5%)

a. *changes * interest * * interest income* (N=1, 6.25%), as in "The impact of changes in interest rate on interest income and expense" (line 24).

b. *changes * interest * * * * interest income* (N=1, 6.25%), as in "The Bank uses sensitivity analysis to measure the potential effect of changes in interest rates on our net interest income and economic value change" (line 23).

4) *interest income ... changes ... interest ... interest* (N=2, 12.5%)

a. *interest income * * * * changes * * interest * * interest* (N=1, 6.25%), as in "the projections take account of effect on net interest income of anticipated differences in changes between interbank interest rates and interest rates linked to other bases" (line 18).

b. *interest income * * changes * * * * interest * * * * * interest* (N=1, 6.25%), as in "the projected sensitivity of HSBC Holdings' net interest income to future changes in yield curves and interest rate gap re-pricing tables for interest rate risk" (line 20).

5) *interest income ... changes ... interest* (N=2, 12.5%)

*interest income * * changes * interest* (N=2, 12.5%), e.g. "the sensitivity of the Group's net interest income to the changes in interest rates tabulated above" (line 21).

6) *interest ... changes ... interest income* (N=1, 6.25%)

*interest * changes * * * interest income* (N=1, 6.25%), as in "The impact of volume and interest rate changes on the consolidated interest income and expense of the Group" (line 26).

7) *changes ... interest ... interest income ... interest* (N=1, 6.25%)

*changes * * * interest * * * * interest income * interest* (N=1, 6.25%), as in "The table below shows the impact of changes in volume and interest rates on the Group's interest income and interest expense" (line 3).

The three local grammatical patterns of *changes/income/interest* are mapped onto the seven configurations (Table 4.19b).

Table 4.19b Local grammatical patterns and configurations of *changes/income/interest*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*changes * * * interest income*	1c	1 11.11%	
	*changes * interest * * interest income*	3a	1 11.11%	4 44.44%
	*changes * interest * * * * interest income*	3b	1 11.11%	
	*changes * * * interest * * * * interest income * interest*	7	1 11.11%	
2	*changes in net interest income*	1a	1 11.11%	3 33.33%
	*changes * interest income*	1b	1	

			11.11%	
	changes in net interest income and net interest expense	2a	1 11.11%	
3	*changes in net interest income*	1a	1 11.11%	2 22.22%
	changes in net interest income and net interest expense	2a	1 11.11%	

Pattern 1 (N=4, 44.44%) is identified in four configurations, namely 1c, 3a, 3b, and 7. In configurations 3a, 3b and 7 where *interest* occurs two or three times, the first *interest* occurs as part of 'the thing that moves', and the other occurrences of *interest* function as part of 'the thing being influenced', e.g. "The table below shows the impact of changes in volume and interest rates on the Group's interest income and interest expense" (line 3). In configuration 1c where *interest* occurs once, it functions as part of 'the thing being influenced', as in "The impact of changes in volume on interest income and expense" (line 10).

Pattern 2 (N=3, 33.33%) is identified in three configurations, namely 1a, 1b and 2a. In these instances, *interest income* occurs as 'the thing that moves' (11.11%), e.g. "Changes in interest income" (line 6), or part of 'the thing that moves' (22.22%), e.g. "Changes in net interest income" (line 22).

Pattern 3 (N=2, 22.22%) is identified in configurations 1a and 2a, where *interest income* (22.22%) and *interest* (11.11%) function as part of 'the thing that moves', e.g. "Analysis of changes in net interest income and net interest expense" (line 5).

Table 4.19c shows the seven main configurations of *changes/income/interest* mapped onto the three local grammatical patterns.

Table 4.19c Configurations and local grammatical patterns of *changes/income/interest*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*changes in net interest income*	1 6.25%	pattern 2	2 12.5%

		1 6.25%	pattern 3	
1b	*changes in interest income*	1 6.25%	pattern 2	1 6.25%
1c	*changes * * * interest income*	1 6.25%	pattern 1	1 6.25%
1d	*changes * * * * interest income*	1 6.25%	unclassified	1 6.25%
2a	*changes in net interest income and net interest expense*	1 6.25%	pattern 2	2 12.5%
		1 6.25%	pattern 3	
2b	*changes * * * interest income * * * interest*	1 6.25%	unclassified	1 6.25%
3a	*changes * interest * * interest income*	1 6.25%	pattern 1	1 6.25%
3b	*changes * interest * * * * interest income*	1 6.25%	pattern 1	1 6.25%
4a	*interest income * * * * changes * * interest * * interest*	1 6.25%	unclassified	1 6.25%
4b	*interest income * * changes * * * * interest * * * * * interest*	1 6.25%	unclassified	1 6.25%
5	*interest income * * changes * interest*	2 12.5%	unclassified	2 12.5%
6	*interest * changes * * * interest income*	1 6.25%	unclassified	1 6.25%
7	*changes * * * interest * * * * interest income * interest*	1 6.25%	pattern 1	1 6.25%

The configurations of the phraseology *changes/income/interest* are diversified. The three constituent words are in seven different positional variations, occurring in 13 configurations. The two instances in one configuration are in different local grammatical patterns. For example, the two occurrences of configuration 1a *changes in net interest income* are found in patterns 2 and 3, with one containing 'analysis (n.) + hinge (prep.)', as in "Analysis of changes in net interest income" (line 9) and the other 'movement (n.) + hinge (prep.) + the thing that moves (n.)', as in "Changes in net interest income" (line 22).

The diversity of configurations is due to the common use of *interest*. It is not only co-selected with *income* to form a noun group of *interest income*, but is also co-selected

with *rates* (N=7, 43.75%), *rate* (N=4, 25%), and *expense* (N=3, 18.75%) to form noun groups of *interest rates*, *interest rate*, and *interest expense*. The different positions of the noun groups and their various word spans result in the diversity of configurations.

4.3.6 Local Grammar of unspecified movement in the discourse of economics

The top five most frequent phraseologies indicating the meaning of unspecified movement in the discourse of economics are *changes/fair/value*, *movement/liabilities/net*, *change/fair/value*, *movements/fair/value* and *changes/income/interest*. Altogether, fourteen local grammatical patterns are observed from the five phraseologies (Appendix 4.39A).

Pattern 1 *movement* (n.) + *hinge* (prep.) + *the thing that moves* (n.) + *hinge* (prep.) + *specifications of the thing that moves* (n.) is the canonical local grammatical pattern of the phraseologies of unspecified movement in economic discourse due to the highest frequency (N=37, 31.36%). It is shared by all the three phraseologies that contain *fair* and *value*, namely *changes/fair/value*, *change/fair/value*, and *movements/fair/value*. The other thirteen patterns are variants of the canonical pattern.

The variant local grammatical patterns are derived from the canonical pattern with some semantic elements added (patterns 4, 6, 10), some semantic elements deleted (pattern 3), some semantic elements added and some others deleted (patterns 2, 7, 11, 12, 13, 14), the sequence changed and some semantic elements added (pattern 8), the sequence changed and some semantic elements deleted (pattern 5), and the sequence changed, some semantic elements added and some others deleted (pattern 9).

As found in Sections 4.6.1 to 4.6.3 (i.e. the upward movement in public relations discourse and upward movement and downward movement in economic discourse), the sequence change of semantic elements only occurs when the word indicating

'movement' has a different part of speech with that in the canonical pattern. The situation in the unspecified movement in economic discourse is different: although all the words indicating 'movement' are nouns, the sequence of semantic elements changes in four patterns.

Among these fourteen patterns, four patterns (N=58, 49.15%) are shared by two to four phraseologies. The relationship between pattern and phraseology is presented in Table 4.39B.

Table 4.39A Distribution of each local grammatical pattern across phraseologies of unspecified movement in the discourse of economics

	changes/fair/ value (N=40: 74)	*movement/ liabilities/ net* (N=40)	*change/fair/ value* (N=25)	*movements/fair /value* (N=20)	*changes/income /interest* (N=16)
pattern 1 (N=37, 31.36%)	√		√	√	
pattern 2 (N=28, 23.73%)		√			
pattern 3 (N=13, 11.02%)	√		√	√	√
pattern 4 (N=7, 5.93%)		√			
pattern 5 (N=5, 4.24%)	√			√	
pattern 6 (N=5, 4.24%)	√				
pattern 7 (N=4, 3.39%)					√
pattern 8 (N=4, 3.39%)				√	
pattern 9 (N=3, 2.54%)			√	√	
pattern 10			√		

(N=3, 2.54%)				
pattern 11 (N=3, 2.54%)	√			
pattern 12 (N=2, 1.69%)	√			
pattern 13 (N=2, 1.69%)				√
pattern 14 (N=2, 1.69%)		√		

Among the five phraseologies, *changes/fair/value*, *change/fair/value*, and *movements/fair/value* are similar in pattern distribution. They all share patterns 1 and 2. *Changes/fair/value* and *movements/fair/value* share pattern 5. *Change/fair/value* and *movements/fair/value* share pattern 9. The similarity in local grammatical patterns of the three phraseologies may be attributable to the similarity in their constituent words, which are composed of *fair*, *value* and a word with the meaning of movement in the form of *changes*, *change*, or *movements*. *Movement/liabilities/net* is the most different phraseology with no pattern shared with the other four phraseologies.

Since some patterns are similar with each other in the sequence and constitution, the fourteen patterns are further combined into four Local Grammatical Patterns, with some elements as obligatory elements and some elements as optional ones (Appendix 4.39C).

The original local grammatical patterns 1, 3, 6, 10 and 13 are combined into Local Grammatical Pattern 1 (N=60, 50.85%). They have 'movement', 'hinge', and 'the thing that moves' as obligatory semantic elements. Some of them contain 'share/profit/analysis + hinge' before 'movement', and/or 'hinge + specifications of the thing that moves' after 'the thing that moves'. These semantic elements are optional in Local Grammatical Pattern 1.

The original patterns 2, 4, 11 and 12 are combined into Local Grammatical Pattern 2 (N=40, 33.90%), where 'claims + hinge + movement + hinge + the thing that moves' are the obligatory semantic elements. Some of the instances have 'modifier of movement', another 'movement' plus 'hinge', and 'comparison' as optional elements.

The original local grammatical patterns 5, 8 and 9 form Pattern 3 (N=12, 10.17%). In these instances, 'movement' is directly preceded by 'the thing that moves', which is different from other patterns. 'The thing that moves' and 'movement' are the obligatory semantic elements of Pattern 3. It has 'influence of movement', 'modifier of movement', 'specifications of the thing that moves', and 'hinge' as optional semantic elements.

The original patterns 7 and 14 are combined into Pattern 4 (N=6, 5.08%). These instances all contain 'influence of movement + hinge + movement + hinge + the thing that moves' as obligatory semantic elements. Some of them also contain another 'hinge' and 'the thing being influenced', which are optional elements of the pattern.

The semantic elements of patterns of the five phraseologies in the discourse of economics are presented in Table 4.39D.

Table 4.39B Distribution of semantic elements across phraseologies of unspecified movement in the discourse of economics

		changes/fair/ value (N=40: 74)	*movement/ liabilities/ net* (N=40)	*change/fair/ value* (N=25)	*movements/ fair/value* (N=20)	*changes/income/ interest* (N=16)
1	movement	√	√	√	√	√
2	hinge	√	√	√	√	√
3	the thing that moves	√	√	√	√	√
4	specifications of the thing that moves	√		√	√	
5	influence of movement			√	√	√

6	modifier of movement		√		√	
7	the thing being influenced					√
8	analysis					√
9	claims		√			
10	comparison		√			
11	share	√				
12	profit			√		

The semantic elements of 'movement', 'hinge', and 'the thing that moves' are observed from the local grammatical patterns of all the five phraseologies. 'Specifications of the thing that moves' are shared by all the three phraseologies with *fair* and *value* as constituent words, namely *changes/fair/value*, *change/fair/value*, and *movements/fair/value*. 'Influence of movement' is shared by *change/fair/value*, *movements/fair/value*, and *changes/income/interest*. 'Modifier of movement' is observed in the semantic patterns of both phraseologies that contain *movement* or *movements*, namely *movement/liabilities/net* and *movements/fair/value*. There are also six semantic elements that are unique to certain phraseologies, namely 'the thing being influenced' and 'analysis' in *changes/income/interest*, 'claims' and 'comparison' in *movement/liabilities/net*, 'share' in *changes/fair/value*, and 'profit' in *change/fair/value*.

Change/fair/value and *movements/fair/value* are the most similar pair with five common semantic elements, namely 'movement', 'hinge', 'the thing that moves', 'specifications of the thing that moves' and 'influence of movement', with the first three shared by all the phraseologies. *Changes/fair/value* has four semantic elements in common with them, with three shared by all the five phraseologies. The other semantic element shared by them is 'specifications of the thing that moves'. *Changes/fair/value* has its unique semantic element of 'share' and *change/fair/value* has its unique semantic element of 'profit'. *Movement/liabilities/net* and *changes/income/interest* are the most different phraseologies, by having the least common semantic elements with the others (N=3) and the most unique semantic elements (N=2).

The analysis indicates that *change/fair/value*, *movements/fair/value*, and *changes/fair/value* are the most similar in terms of local grammatical patterns and semantic elements among the five phraseologies of unspecified movement in the discourse of economics. Their similarity is due to the similarity of constituent words. A slightly higher similarity, however, is observed between *change/fair/value* and *movements/fair/value*, rather than between *change/fair/value* and *changes/fair/value* or *changes/fair/value* and *movements/fair/value*, despite their higher similarity in word constitution or forms of the number. *Movement/liabilities/net* is the most different phraseology in local grammatical patterns and semantic elements. It appears that in the phraseologies of unspecified movement in the discourse of economics, the words co-selected with the words indicating movement (e.g. *fair*, *value*, *liabilities*, *net*) exerts more influence on the local grammatical patterns and semantic elements of the phraseologies than the words indicating movement (e.g. *change*, *movements*, *movement*) do.

4.4 Local grammars of phraseologies of movement in corporate governance discourse

Only two phraseologies indicating 'movement' are observed to occur more than ten times in the discourse of governance. One is *business/development/group*, indicating upward movement and the other is *changes/equity/statement*, indicating unspecified movement.

4.4.1 Phraseology of upward movement in corporate governance discourse

The only phraseology of upward movement in corporate governance discourse is *business/development/group.* In this phraseology, 34 co-occurrences are found in 36 concordance lines and 15 co-selections in 15 concordance lines. Three local

grammatical patterns are identified in 7 of the 15 lines analysed (46.67%) (Table 4.20a). A detailed description of the patterns and linguistic realizations is found in Appendix 20.

Table 4.20a Three local grammatical patterns of *business/development/group* in corporate governance discourse

	v	prep	n	prep	n		prep	n	3
	contribute	hinge	method of contribution	hinge	movement		hinge	the thing that moves	42.86%
1	*contribute*	*by way of*	*joint venture, business alliance or other business arrangement*	*to*	*the development and growth*		*of*	*the HHR Group*	

	n	prep	n	conj	n	n	prep	n	2
	range	hinge	business	hinge	the thing that moves	movement	hinge	the possessor of the thing that moves	28.57%
2	*any area*	*of*	*business*	*or*	*business*	*development*	*of*	*any member of NWSH Group or any Invested Entity*	

	n	prep	n	prep	n	prep	n	n	conj	n	2
	member	hinge	possessor of the member	hinge	range	hinge	the thing that moves	operation	hinge	movement	28.57%
3	*any member*	*of*	*the Group or any Invested Entity*	*in*	*any area*	*of*	*business*	*operation*	*or*	*development*	

Pattern 1 (N=3, 42.86%) is considered the canonical local grammatical pattern of the phraseology. It is a clause starting with 'contribute (v.)'. The 'movement' (n.) in all the three instances is represented by *the development and growth*. The noun *business* is part of the 'method of contribution' (n.) and *group* is part of 'the thing that moves', e.g. "contributing by way of joint venture, business alliance or other business arrangement to the development and growth of the HTIL Group" (line 27).

Although patterns 2 (N=2, 28.57%) and 3 (N=2, 28.57%) are considered variants of the canonical pattern, they are noun groups rather than clauses, and they are not associated with *contribution*. The 'movement' (n.) is represented by *development*, and 'the thing that moves' (n.) is represented by *business*. In pattern 2, *Group* is part of 'the possessor of the thing that moves' (n.), e.g. "any advisor (professional or otherwise) or consultant to any area of business or business development of any member of NWSH Group or any Invested Entity" (line 31). In pattern 3, *Group* is part of the 'possessor of the member' (n.), e.g. "any member of the Group or any Invested Entity in any area of business operation or development" (line 10).

Five main configurations of the linguistic forms of *business/development/group* are identified, as below:

1) *business ... business ... development ... Group* (N=5, 33.33%)

a. *business alliance or other business arrangement to the development and growth of the * Group* (N=3, 20%), e.g. "contributing by way of joint venture, business alliance or other business arrangement to the development and growth of the HTIL Group" (line 27)

b. *business or business development of any member of * Group* (N=2, 13.33%), e.g. "any adviser (professional or otherwise) or consultant to any area of business or business development of any member of NWSH Group" (line 31)

2) *Group ... business ... development* (N=3, 20%)

a. *Group or any Invested Entity in any area of business operation or development* (N=2, 13.33%), e.g. "any member of NWSH Group or any Invested Entity in any area of business operation or development" (line 11)

b. *Group Business Development* (N=1, 6.67%), as in "Group Business Development Department" (line 18)

3) *Group's ... business ... development* (N=3, 20%)

a. *Group's * * business development* (N=1, 6.67%), as in "The Managing Director takes the lead in the Group's operations and business development" (line 15)

b. *Group's business * development* (N=1, 6.67%), as in "the interests of Directors in businesses which may compete with the Group's business of development, investment and operation of power generation" (line 16)

c. *Group's business development* (N=1, 6.67%), as in "need for cash for the Group's business development" (line 17)

4) *development ... business ... Group* (N=2, 13.33%)

a. *development * * * business * * * Group* (N=1, 6.67%), as in "He was educated in the United Kingdom and has been primarily responsible for the development of the PRC business of Henderson Land Group since he joined the Company in 1985" (line 4)

b. *development * * * * business * * * * * Group* (N=1, 6.67%), as in "includes a fair review of the development and performance of the business and the position of the Group" (line 2)

5) *business ... development ... group* (N=2, 13.33%)

a. *business development * * * group* (N=1, 6.67%), as in "are expected to be able to contribute to the business development of the SmarTone group" (line 12)

b. *business * * development * * Group* (N=1, 6.67%), as in "keep them abreast of their responsibilities and of the conduct, business activities and development of the Group" (line 30)

The three local grammatical patterns of *business/development/group* are mapped onto the five main configurations (Table 4.20b)

Table 4.20b Local grammatical patterns and configurations of *business/development/group*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*business alliance or other business arrangement to the development and growth of the * Group*	1a	3 42.86%	3 42.86%
2	*business or business development of any member of * Group*	1b	2 28.57%	2 28.57%
3	*Group or any Invested Entity in any area of business operation or development*	2a	2 28.57%	2 28.57%

As shown in Table 4.20b, each local grammatical pattern is confined to one configuration. The forms of the configurations are rather fixed, since the words among *business*, *development* and *Group* of all the instances of one configuration are almost the same. They are therefore represented by actual words rather than by asterisk.

Pattern 1 (N=3, 42.86%) is identified in configuration 1a, with *business alliance or other business arrangement* representing part of the 'method of contribution', *the development and growth* representing the 'movement', and *the * Group* representing 'the thing that moves', e.g. "contribute by way of joint venture, business alliance or other business arrangement to the development and growth of the HHR Group" (line 26).

Pattern 2 (N=2, 28.57%) is identified in configuration 1b, with the second *business* representing 'the thing that moves', *development* representing 'movement', and *any*

*member of * Group* representing part of 'the possessor of the thing that moves', e.g. "any adviser (professional or otherwise) or consultant to any area of business or business development of any member of the Group or any Invested Entity" (line 32).

Pattern 3 (N=2, 28.57%) is identified in configuration 2a, with *Group or any Invested Entity* representing part of 'possessor of the member', *any area* representing the 'range', business representing 'the thing that moves', and development representing the 'movement', e.g. "any member of the Group or any Invested Entity in any area of business operation or development" (line 10).

Table 4.20c shows the five main configurations of *business/development/group* mapped onto the three local grammatical patterns.

Table 4.20c Configurations and local grammatical patterns of *business/development/group*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*business alliance or other business arrangement to the development and growth of the * Group*	3 20%	pattern 1	3 20%
1b	*business or business development of any member of * Group*	2 13.33%	pattern 2	2 13.33%
2a	*Group or any Invested Entity in any area of business operation or development*	2 13.33%	pattern 3	2 13.33%
2b	*Group Business Development*	1 6.67%	unclassified	1 6.67%
3a	*Group's * * business development*	1 6.67%	unclassified	1 6.67%
3b	*Group's business * development*	1 6.67%	unclassified	1 6.67%
3c	*Group's business development*	1 6.67%	unclassified	1 6.67%
4a	*development * * * business * * * Group*	1 6.67%	unclassified	1 6.67%
4b	*development * * * * business * * * * * Group*	1 6.67%	unclassified	1 6.67%
5a	*business development * * * group*	1 6.67%	unclassified	1 6.67%
5b	*business * * development * * Group*	1	unclassified	1

			6.67%		6.67%

Only configurations 1a, 1b and 2a have their unique local grammatical patterns. The diversity of the linguistic forms (11 configurations in 15 instances) is resulted from the differences in the sequence of the constituent words, the number of intervening words, the number of occurrence of *business*, and the genitive case of *group*.

4.4.2 Phraseology of unspecified movement in corporate governance discourse

The only phraseology of unspecified movement in corporate governance discourse is *changes/equity/statement*. In this phraseology, 10 co-occurrences are found in 11 concordance lines and 10 co-selections in 10 concordance lines. One local grammatical pattern is identified in the 10 lines analysed (100%) (Table 4.21a). A detailed description of the patterns and linguistic realizations is found in Appendix 21.

Table 4.21a One local grammatical pattern of *changes/equity/statement* in corporate governance discourse

	n	prep	n	prep	n	10 100%
1	statement	hinge	movement	hinge	the thing that moves	
	the consolidated statement	*of*	*changes*	*in*	*equity*	

All the 10 instances have the local grammatical pattern '*statement* (n.) + *hinge* (prep.) + *movement* (n.) + *hinge* (prep.) + *the thing that moves* (n.)'. The 'statement', represented by *the consolidated statement* (90%) or *the statement* (10%), is connected to the 'movement' represented by *changes* by the 'hinge' (prep) *of*. 'The thing that moves' (n.), represented by *equity* (90%) or *shareholders' equity* (10%), is connected to the 'movement' (n.) by the 'hinge' (prep.) *in*, e.g. "Other movements in reserves are set out in the consolidated statement of changes in equity" (line 2). It is similar to the pattern 'N of n', with 'N' classified into the 'announcement' group (Francis et al., 1998). 'N' is represented as 'statement' in the current study, and 'n' is represented as

'movement (n.) + hinge (prep.) + the thing that moves (n.)' to highlight the language of movement, which is the focus of the study.

Three configurations of the linguistic forms of *changes/equity/statement* are identified, as follows:

1) *the consolidated statement of changes in equity* (N=8, 80%), e.g. "Details of movements in the reserves of the Group are set out in the consolidated statement of changes in equity on page 111" (line 9).

2) *the Statement of changes in equity* (N=1, 10%), as in "are set out in the Statement of Changes in Equity on pages 139 and 140 of this Annual Report" (line 4).

3) *the consolidated statement of changes in shareholders' equity* (N=1, 10%), as in "are set out in the consolidated statement of changes in shareholders' equity on pages 112 to 113" (line 6).

This phraseology is different in that all the configurations have the same local grammatical pattern. They form noun groups which indicate a section of financial statement, co-selected with the verb groups *are set out in* (90%) or *please refer to* (10%), to refer the readers to certain sections in the accounting discourse.

4.5 Local grammars of phraseologies of movement in the accounting discourse

In the accounting discourse, phraseologies of three movement types, namely upward movement, downward movement, and unspecified movement, have been identified. The five (in upward movement and unspecified movement) or four (in upward movement) most frequent phraseologies in each movement type are selected for study.

4.5.1 Phraseologies of upward movement in the accounting discourse

Only four phraseologies are observed in the discourse of accounting to indicate upward movement with the occurrence of at least ten times. They are *increase/fair/value*, *increase/cash/equivalents*, *increase/HK$#/million* and *increased/HK$#/million*.

4.5.1.1 *Increase/fair/value*

In the case of *increase/fair/value*, 74 co-occurrences are found in 64 concordance lines and 40 co-selections in 40 concordance lines. Among the 40 co-selections, 36 instances (90%) express the meaning of upward movement, e.g. "Increase in fair value of investment properties" (line 27). In the other 4 instances (10%), the phraseology indicates the meaning of unspecified movement together with *or increase*, e.g. "Increase or decrease in fair value of investment properties is recognized in the profit and loss account" (line 6). In these instances, *increase or decrease* can be substituted by *change*, the movement of which is not specified. Since the occurrence of 4 instances does not meet the cutoff of 10 times, they are not included in the study of unspecified movement of accounting discourse. Therefore, only the local grammar of *increase/fair/value* expressing the meaning of upward movement (N=36) is studied, with six local grammatical patterns identified in 30 of the 36 lines analysed (83.33%) (Table 4.22a). A detailed description of the patterns and linguistic realizations is found in Appendix 22.

Table 4.22a Six local grammatical patterns of *increase/fair/value* in the accounting discourse

	n	prep	n	prep	n	
1	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	16 53.33%
	increase	*in*	*fair value*	*of*	*investment properties*	
2	n	prep	n			5
	movement	hinge	the thing			16.67%

#								Count
				that moves				
	increase		*in*	*fair value*				
3	adj	n	prep	n	prep	n		3 10%
	modifier of movement	movement	hinge	the thing that moves	hinge	specifications of the thing that moves		
	any subsequent	*increase*	*in*	*the fair value*	*of*	*such assets*		
4	adj	n	prep	n				2 6.67%
	modifier of movement	movement	hinge	the thing that moves				
	subsequent	*increase*	*in*	*fair value*				
5	n	prep	n	prep	n			2 6.67%
	extent	hinge	movement	hinge	the thing that moves			
	the extent	*of*	*the increase*	*in*	*fair value*			
6	adj	n	prep	n	prep	n		2 6.67%
	modifier of movement	movement	hinge	the thing that moves	hinge	the thing to be excluded from the movement		
	any subsequent	*increase*	*in*	*the fair value*	*less*	*costs to sell*		

Pattern 1 is the canonical local grammatical pattern

of the phraseology (N=16, 53.33%). The 'movement' (n.), represented by *increase* (30%), *(decrease) increase* (13.33%), *the increase* (6.67%), and *an increase* (3.33%), is connected to 'the thing that moves' (n.), represented by *fair value*, by the 'hinge' (prep.) *in*. 'The thing that moves' (n.) is then connected to 'specifications of the thing that moves' (n.) in the form of *investment properties* (50%) or *properties under construction or development for future use* (3.33%) by the 'hinge' (prep.) *of*, e.g. "Increase in fair value of investment properties" (line 20). It is similar to the pattern 'N *in* n' by Francis et al. (1998), with 'N' represented as 'movement' and 'n' represented as 'the thing that moves (n.) + hinge (prep.) + specifications of the thing that moves (n.)' in the current study. The difference in the presentation of grammatical patterns is because that Francis et al. (1998) studied the grammatical patterns of all the English nouns, so that the patterns in their study are rather general and brief; while the current study focuses on the language of movement, so that the patterns can be more detailed and specific.

In pattern 2 (N=5, 16.67%), 'specifications of the thing that moves' (n.) is omitted from the canonical local grammatical pattern, with the 'movement' is represented by *increase* (13.33%) or *increase (decrease)* (3.33%), which is connected to 'the thing that moves' (n.) in the form of *fair value* (10%) or *gains on financial assets at fair value through Profit or loss* (6.67%) by the 'hinge' (prep.) *in*, e.g. "Increase in fair value" (line 25). It has its counterpart 'N *in* n' in Francis et al. (1998), with 'N' represented as 'movement' and 'n' represented as 'the thing that moves' in the current study.

Pattern 3 (N=3, 10%) has 'modifier of movement' (adj.) in the form of *any subsequent* added to the canonical pattern, e.g. "Any subsequent increase in the fair value of such assets is recognised directly in other comprehensive income" (line 47). This pattern can be regarded as a variation of the pattern 'N *in* n' in Francis et al. (1998), which deal with all the English nouns. In the current study, which focuses on the language of movement, the 'N' is represented as 'modifier of movement (adj) + movement (n.)', and 'n' is represented as 'the thing that moves (n.) + hinge (prep.) + specifications of the thing that moves (n.)'. It makes the grammatical patterns more specific and more meaningful.

Pattern 4 (N=2, 6.67%) has 'modifier of movement' (adj.) in the form of *the subsequent* or *the cumulative* added, and 'specifications of the thing that moves' (n.) omitted from the canonical pattern, e.g. "Impairment losses in respect of available-for-sale debt securities are reserved if the subsequent increase in fair value can be objectively related to an event" (line 40). Similarly, it is another variation of the pattern 'N *in* n' of Francis et al. (1998), with 'N' represented as 'modifier of movement (adj.) + movement (n.)' and 'n' represented as 'the thing that moves' (n.).

Pattern 5 (N=2, 6.67%) has 'extent (n.) + hinge (prep.)' added to the beginning of the canonical pattern and 'specifications of the thing that moves' (n.) omitted, e.g. "the impairment loss is reserved through the income statement to the extent of the increase in fair value" (line 33). It can be considered to be an expansion of 'N *in* n' (Francis et

al., 1998), with 'n *of*', which is represented as 'extent (n.) + hinge (prep.)' in the current study, added to the beginning.

Pattern 6 (N=2, 6.67%) has the highest degree of turbulence from the canonical pattern, with 'modifier of movement' (adj.) added to the beginning, 'specifications of the thing that moves' (n.) omitted, and 'hinge (prep.) + the thing to be excluded from the movement (n.)' added to the end, e.g. "any subsequent increase in the fair value less costs to sell" (line 46). It does not have any counterpart in Francis et al. (1998). The difference may be due to the feature of the language of movement in corporate annual reports.

Regarding configurations of *increase/fair/value*, the constituent words of the phraseology are always in the sequence of *increase ... fair value*, without any positional variants. Three configurations are identified, as follows.

1) *increase * fair value* (N=28, 77.78%)

In 27 instances (75%), the word between *increase* and *fair value* is the preposition *in*, e.g. "(Decrease) increase in fair value of investment properties" (line 7). In these instances, *increase* is used as a noun. In the other instance (2.78%), where *increase* is used as a verb, the word is the determiner *the*, as in "Where the effect of a modification is to increase the fair value of an award" (line 44).

2) *increase * * fair value* (N=6, 16.67%)

In 5 instances (13.89%), the two words between *increase* and *fair value* are *in the*, e.g. "Any subsequent increase in the fair value of such assets is recognised directly in other comprehensive income" (line 47). In the other instance, the words are *(decrease) in*, as in "Increase (decrease) in fair value taken to available-for-sale securities reserve" (line 53).

3) *increase in gains on financial assets at fair value* (N=2, 5.56%)

In these two instances, the six words between *increase* and *fair value* are always *in gains on financial assets at*, e.g. "Profit for the year would increase by HK$61 million (2008 – HK$92 million) due to increase in gains on financial assets at fair value through Profit or loss" (line 58).

The six local grammatical patterns of *increase/fair/value* are mapped onto the three configurations (Table 4.22b).

Table 4.22b Local grammatical patterns and configurations of *increase/fair/value*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*increase * fair value*	1	16 53.33%	16 53.33%
2	*increase * fair value*	1	2 6.67%	5 16.67%
	increase in gains on financial assets at fair value	3	2 6.67%	
	*increase * * fair value*	2	1 3.33%	
3	*increase * * fair value*	2	3 10%	3 10%
4	*increase * fair value*	1	2 6.67%	2 6.67%
5	*increase * fair value*	1	2 6.67%	2 6.67%
6	*increase * * fair value*	2	2 6.67%	2 6.67%

Each of the local grammatical patterns 1, 3, 4, 5 and 6 is found in one configuration. Local grammatical pattern 1 is found in configuration 1, with *in* between *increase* and *fair value*. *Fair value* is always followed by 'hinge (prep.) *of* + specifications of the thing that moves (n.)', e.g. "Increase in fair value of investment properties" (line 30).

Local grammatical pattern 3 is found in configuration 2, with *in* and *the* between *increase* and *fair value*, e.g. "Any subsequent increase in the fair value of such assets is recognised directly in equity" (line 50).

Patterns 4 and 5 are found in configuration 1, with the preposition *in* between *increase* and *fair value*. Pattern 4 begins with 'modifier of the movement', e.g. "the cumulative increase in fair value at the date of reclassification is included in the property revaluation reserve" (line 35); while pattern 5 begins with 'extent', e.g. "the impairment loss is reversed through the income statement to the extent of the increase in fair value" (line 33).

Pattern 6 is found in configuration 2, with *in* and *the* between *increase* and *fair value*, e.g. "any subsequent increase in the fair value less costs to sell" (line 46).

Pattern 2 is different in that it is found in all the three configurations. In this local grammatical pattern, *increase* represents 'movement' (the 3 instances in configurations 1 and 3), e.g. "Increase in fair value" (line 25), "increase in gains on financial assets at fair value through Profit or loss" (line 58), or part of 'movement' (the 1 instance in configuration 2), e.g. "Increase (decrease) in fair value" (line 53). *Fair value* represents 'the thing that moves' (n.) (the 3 instances in configurations 1 and 2), e.g. "Increase in fair value" (line 25), "Increase (decrease) in fair value" (line 53), or part of 'the thing that moves' (the 2 instances in configuration 3), e.g. "increase in gains on financial assets at fair value through Profit or loss" (line 58).

The three configurations of *increase/fair/value* are then mapped onto the six local grammatical patterns (Table 4.22c).

Table 4.22c Configurations and local grammatical patterns of *increase/fair/value*

Conf no.	Configuration	Freq	Pattern	Total freq
1	*increase * fair value*	16 44.44%	pattern 1	28 77.78%

		2 5.56%	pattern 2	
		2 5.56%	pattern 4	
		2 5.56%	pattern 5	
		6 16.67%	unclassified	
2	*increase * * fair value*	3 8.33%	pattern 3	6 16.67%
		2 5.56%	pattern 6	
		1 2.78%	pattern 2	
3	*increase in gains on financial assets at fair value*	2 5.56%	pattern 2	2 5.56%

Configuration 1 (N=28, 77.78%) is realized in four of the six local grammatical patterns, namely patterns 1, 2, 4 and 5. In the 22 instances (61.11%) classified into local grammatical patterns, the preposition *in* is the only word between *increase* and *fair value*. It functions as a 'hinge' to connect 'movement' (n.) and 'the thing that moves' (n.), e.g. "the increase in fair value of investment properties" (line 29). Six instances in configuration 1 (16.67%) are not classified due to their unique grammatical feature, e.g. "Where the effect of a modification is to increase the fair value of an award" (line 44).

Configuration 2 (N=6, 16.67%) is realized in patterns 2, 3, and 6. In the 5 instances (13.89%) of patterns 3 (8.33%) and 6 (5.56%), the intervening words are *in* and *the*, e.g. "Any subsequent increase in the fair value of such assets" (line 51). The preposition *in* connects 'movement' and 'the thing that moves', and *the* is the determiner of *fair value*, together with which to constitute 'the thing that moves' (n.). In the instance in pattern 2, the words are *decrease* in brackets and *in*, e.g. "Increase (decrease) in fair value" (line 53).

Configuration 3 (N=2, 5.56%) is found in pattern 2, with the preposition *in* as the 'hinge' connecting 'movement' and 'the thing that moves', and the other intervening

words as part of 'the thing that moves', e.g. "due to increase in gains on financial assets at fair value through Profit or loss" (line 58).

4.5.1.2 *Increase/cash/equivalents*

In the case of *increase/cash/equivalents*, 17 co-selections are found in 17 concordance lines. All the co-selections of *cash* and *equivalents* occur in the chunk of *in cash and cash equivalents*. Two local grammatical patterns are identified in the 17 lines analysed (100%) (Table 4.23a). A detailed description of the patterns and linguistic realizations is found in Appendix 23.

Table 4.23a Two local grammatical patterns of *increase/cash/equivalents* in the accounting discourse

	adj	n	prep	n	10
1	modifier of movement	movement	hinge	the thing that moves	58.82%
	net	*(decrease) increase*	*in*	*cash and cash equivalents*	
		n	prep	n	7
2		movement	hinge	the thing that moves	41.18%
		increase	*in*	*cash and cash equivalents*	

In both local grammatical patterns, 'the thing that moves' (n.) is represented by *cash and cash equivalents*, which is connected to the 'movement' (n.) by the 'hinge' (prep.) *in*, e.g. "Net (decrease) increase in cash and cash equivalents" (line 1).

Pattern 1 is the canonical local grammatical pattern (N=10, 58.82%). It starts with the 'modifier of movement' (adj.) in the form of *net*. The 'movement' is represented by *(decrease) increase* (23.53%), *increase (decrease)* (23.53%) and *increase* (11.76%), e.g. "Net (decrease) increase in cash and cash equivalents" (line 4). It is similar to the pattern 'N *in* n' by Francis et al. (1998), with 'N' represented as 'modifier of movement (adj.) + movement (n.)' and 'n' represented as 'the thing that moves' (n.) in the current study.

Pattern 2 (N=7, 41.18%) is the variant of the canonical pattern, with the only difference that the 'movement' (n.) in pattern 2 is not qualified by any 'modifier of movement', e.g. "Increase (decrease) in cash and cash equivalents" (line 7). Compared with pattern 1, this pattern is more similar to the pattern 'N *in* n' (Francis et al., 1998), with 'N' represented as 'movement' and 'n' represented as 'the thing that moves'.

The co-selections of words occur in independent noun groups as items in financial statements, which are usually embodied by two figures. One figure represents the movement of cash and cash equivalents of the reported year, and the other figure repeats the movement of the previous year. When the amount of cash and cash equivalents decreases, the figure is bracketed; when the amount increases, it is not bracketed, e.g. "Net increase (decrease) in cash and cash equivalents 6,212 (1,242)" (line 12). In the cases where the amounts of cash and cash equivalents increase for both years, the noun *(decrease)* is omitted, e.g. "Net increase in cash and cash equivalents 2,112 8,768" (line 3).

Six configurations of the linguistic forms of *increase/cash/equivalents* are identified, as below:

1) *Net increase (decrease) in cash and cash equivalents* (N=4, 23.53%), e.g. "Net increase (decrease) in cash and cash equivalents 949.2 (2,688.2)" (line 12)

2) *Net (decrease) increase in cash and cash equivalents* (N=4, 23.53%), e.g. "Net (decrease) increase in cash and cash equivalents (335,088) 392,470" (line 1)

3) *Increase (decrease) in cash and cash equivalents* (N=3, 17.65%), e.g. "Increase (decrease) in cash and cash equivalents 35,235 (54,021)" (line 7)

4) *Increase in cash and cash equivalents* (N=3, 17.65%), e.g. "Increase in cash and cash equivalents 431 8,151" (line 8)

5) *Net increase in cash and cash equivalents* (N=2, 11.76%), e.g. "Net increase in cash and cash equivalents 2,112 8,768" (line 3)

6) *(Decrease) increase in cash and cash equivalents* (N=1, 5.88%), as in "(Decrease) increase in cash and cash equivalents (1,833) 495" (line 6)

The two local grammatical patterns are mapped onto the six configurations (Table 4.23b).

Table 4.23b Local grammatical patterns and configurations of *increase/cash/equivalents*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*Net increase (decrease) in cash and cash equivalents*	1	4 23.53%	10 58.82 %
	Net (decrease) increase in cash and cash equivalents	2	4 23.53%	
	Net increase in cash and cash equivalents	5	2 11.76%	
2	*Increase (decrease) in cash and cash equivalents*	3	3 17.65%	7 41.18 %
	Increase in cash and cash equivalents	4	3 17.65%	
	(Decrease) increase in cash and cash equivalents	6	1 5.88%	

Pattern 1 (N=10, 58.82%) is found in configurations 1 (N=4, 23.53%), 2 (N=4, 23.53%), and 5 (N=2, 11.76%). The only difference among the configurations lies in whether the 'movement' is represented by *increase (decrease)* (configuration 1), e.g. "Net increase (decrease) in cash and cash equivalents" (line 12), *(decrease) increase* (configuration 2), e.g. "Net (decrease) increase in cash and cash equivalents" (line 1), or *increase* (configuration 5), e.g. "Net increase in cash and cash equivalents" (line 10).

Pattern 2 (N=7, 41.18%) is found in configurations 3 (N=3, 17.65%), 4 (N=3, 17.65%) and 6 (N=1, 5.88%); in other words, the configurations without *net*, e.g. "Increase in cash and cash equivalents" (line 11).

The six configurations of *increase/cash/equivalents* are then mapped onto the two local grammatical patterns (Table 4.23c).

Table 4.23c Configurations and local grammatical patterns of *increase/cash/equivalents*

Conf no.	Configuration	Freq	Pattern	Total freq
1	*Net increase (decrease) in cash and cash equivalents*	4 23.53%	pattern 1	4 23.53%
2	*Net (decrease) increase in cash and cash equivalents*	4 23.53	pattern 1	4 23.53%
3	*Increase (decrease) in cash and cash equivalents*	3 17.65%	pattern 2	3 17.65%
4	*Increase in cash and cash equivalents*	3 17.65%	pattern 2	3 17.65%
5	*Net increase in cash and cash equivalents*	2 11.76%	pattern 1	2 11.76%
6	*(Decrease) increase in cash and cash equivalents*	1 5.88%	pattern 2	1 5.88%

Each of the configurations is realized in only one local grammatical pattern. The configurations sharing *net* at the beginning are all realized in pattern 1, e.g. "Net increase in cash and cash equivalents" (line 3); while the configurations without *net* are all realized in pattern 2, e.g. "Increase in cash and cash equivalents" (line 9). It conforms to the difference between the two local grammatical patterns, i.e. containing the 'modifier of movement' (pattern 1) or not (pattern 2).

4.5.1.3 *Increase/HK$#/million*

In the case of *increase/HK$#/million*, 45 co-occurrences are found in 28 concordance lines and 14 co-selections in 14 concordance lines, with three local grammatical

patterns identified in 10 of the 14 lines analysed (71.43%) (Table 4.24a). A detailed description of the patterns and linguistic realizations is found in Appendix 24.

Table 4.24a Three local grammatical patterns of *increase/HK$#/million* in the accounting discourse

1	n	v	prep	num							5 50%
	the thing that moves	movement	hinge	amount of movement							
	total equity	*would increase*	*by*	*HK$61 million*							
2		n	prep	n	prep	num					3 30%
		movement	hinge	the thing that moves	hinge	amount of movement					
		the increase	*in*	*fair value during the year*	*in the amount of*	*HK$311 million*					
3	n	prep	num	prep	n	prep	v	n	prep	num	2 20%
	move ment	hinge	amount of move-ment	hinge	the thing that moves	premise of estimation	movement	the thing that moves	hin-ge	amount of move-ment	
	an in-crease /de-crease	*of*	*100 basis points*	*in*	*inte-rest rates,*	*with all other variables held constant,*	*would decrease /increase*	*the profit before taxa-tion for the year*	*by*	*approxi mately HK$265 million*	

In the first local grammatical pattern (N=5, 50%), which is the canonical local grammatical pattern of *increase/HK$#/million*, *increase* is a verb and the phraseology occurs in a clause; while in the second local grammatical pattern (N=3, 30%), *increase* is a noun and the phraseology occurs in a noun group. All the 5 instances of local grammatical pattern 1 have the same set of words representing 'movement' (v.) and

'hinge' (prep.), which are *would increase* and *by* respectively, with 'the thing that moves' (n.) represented by *total equity* (20%), *the long term business fund liability* (20%) or *profit for the year* (10%) and 'the amount of movement' represented by *HK$# million* (30%) or *approximately HK$# million* (20%), e.g. "total equity would increase by HK$61 million" (line 14) and "the long term business fund liability would increase by approximately HK$637 million" (line 18). In Francis et al. (1996), this pattern is represented as 'V *by* amount', with the 'amount' indicating the 'amount of movement'.

In pattern 2 (N=3, 30%), the 'movement' (n.), represented by *the increase* (10%), *an increase* (10%) or *increase* (10%), is connected to 'the thing that moves' (n.) in the form of *the Group's profit for the year ended 31st December 2009* (10%), *fair value during the year* (10%), or *fair value of investment properties net of deferred tax* (10%) by the 'hinge' (prep.) *in*. The 'hinge' (prep.) *of* (20%) or *in the amount of* (10%) connects 'the amount of movement' (num.) in the form of *HK$# million* to 'the thing that moves' (n.), e.g. "an increase in the Group's profit for the year ended 31st December 2009 of HK$31 million" (line 11) and "the increase in fair value during the year in the amount of HK$311 million" (line 21). It can be considered as an expansion of the pattern 'N *in* n' (Francis et al., 1998) by adding 'hinge (prep.) + the amount of movement (num.)'.

Pattern 3 (N=2, 20%) is different in that *increase* occurs twice in each instance, with the first occurrence as a noun and the second as a verb, and it is always co-selected with *decrease*, e.g. "an increase/decrease of 100 basis points in interest rates, with all other variables held constant, would decrease/increase the profit before taxation for the year by approximately HK$265 million" (line 22). It indicates an estimation of the impact of the change in interest rates on the Group's profit. *With all other variables held constant* represents the 'premise of estimation' (prep.). No counterpart has been observed in Francis et al. (1996; 1998) due to the complexity of the pattern.

Six main configurations of the linguistic forms of *increase/HK$#/million* are identified, as below:

1) *increase ... HK$# million* (N=9, 64.29%)

a. *would increase by HK$# million* (N=3, 21.43%), e.g. "total equity would increase by HK$2,255 million" (line 15)

b. *would increase by approximately HK$# million* (N=2, 14.29%), e.g. "the long term business fund liability would increase by approximately HK$43 million" (line 19)

c. *would increase * * * * * * * * * * * by HK$# million* (N=1, 7.14%), as in "such a series of incremental parallel rises in all-in yield curves would increase planned net interest income for the year to 31 December 2010 by HK$2,186 million" (line 26)

d. *an increase in * * * * * * * * * * of HK$# million* (N=1, 7.14%), as in "an increase in the Group's profit for the year ended 31st December 2009 of HK$31 million" (line 11)

e. *increase in * * * * * * * * * of HK$# million* (N=1, 7.14%), as in "including increase in fair value of investment properties net of deferred tax of HK$187 million" (line 23)

f. *the increase in * * * * * in the amount of HK$# million* (N=1, 7.14%), as in "the increase in fair value during the year in the amount of HK$311 million" (line 21)

2) *increase/decrease ... HK$# million* (N=1, 7.14%)

*would increase/decrease * * * * by HK$# million* (N=1, 7.14%), as in "but would increase/decrease the Group's total equity by HK$123 million" (line 20)

3) *increase/decrease ... HK$# million ... HK$# million* (N=1, 7.14%)

an increase/decrease of HK$# million and HK$# million respectively (N=1, 7.14%), as in "the impact would have been an increase/decrease of HK$272 million (2008: HK$252 million) and HK$36 million (2008: nil) respectively" (line 17)

4) *increase/decrease ... decrease/increase ... HK$# million* (N=1, 7.14%)

*a #% increase/decrease in * * * * * * * will decrease/increase * * * * * * * by approximately HK$# million* (N=1, 7.14%), as in "a 5% (2008: 5%) increase/decrease in the exchange rate of JPY against USD will decrease/increase the Group's post-tax profit and total equity by approximately HK$256 million" (line 24)

5) *increase/decrease ... decrease/increase ... HK$# million* (N=1, 7.14%)

*an increase/decrease of # basis points in * * , with all other variables held constant, would decrease/increase * * * * * * * by approximately HK$# million* (N=1, 7.14%), as in "an increase/decrease of 100 basis points in interest rates, with all other variables held constant, would decrease/increase the profit before taxation for the year by approximately HK$265 million" (line 22)

6) *increase/decrease ... increase/decrease ... HK$# million* (N=1, 7.14%)

*a general increase/decrease of #% in * *, with all other variables held constant, would increase/decrease * * * * * * * by approximately HK$# million* (N=1, 7.14%), as in "a general increase/decrease of 1% (2008: 1%) in interest rates, with all other variables held constant, would decrease/increase the Group's post-tax profit and total equity by approximately HK$28 million" (line 25)

The three local grammatical patterns of *increase/HK$#/million* are mapped onto the six configurations (Table 4.24b).

Table 4.24b Local grammatical patterns and configurations of *increase/HK$#/million*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*would increase by HK$# million*	1a	3 30%	5 50%
	would increase by approximately HK$# million	1b	2 20%	
2	*an increase in * * * * * * * * * * of HK$# million*	1d	1 10%	3 30%
	*increase in * * * * * * * * * of HK$# million*	1e	1 10%	
	*the increase in * * * * * in the amount of HK$# million*	1f	1 10%	
3	*an increase/decrease of # basis points in * * , with all other variables held constant, would decrease/increase * * * * * * * by approximately HK$# million*	5	1 10%	2 20%
	*a general increase/decrease of #% in * *, with all other variables held constant, would increase/decrease * * * * * * * by approximately HK$# million*	6	1 10%	

Pattern 1 (N=5, 50%) is found in configurations 1a (N=3, 30%) and 1b (N=2, 20%), with the only difference in whether the 'amount of movement' (num.) is represented by *HK$# million* (1a) or *approximately HK$# million* (1b), e.g. "Profit for the year would increase by HK$61 million" (line 16, configuration 1a) and "the long term

business fund liability would increase by approximately HK\$637 million" (line 18, configuration 1b).

Pattern 2 (N=3, 30%) is found in configurations 1d, 1e, and 1f, with a major difference in the length of the noun groups representing 'the thing that moves', as in "an increase in the Group's profit for the year ended 31st December 2009 of HK\$31 million" (line 11, configuration 1c), "including increase in fair value of investment properties net of deferred tax of HK\$187 million" (line 23, configuration 1e), and "the increase in fair value during the year in the amount of HK\$311 million" (line 21, configuration 1f). Configuration 1f is more different in that the 'hinge' (prep.) connecting 'the thing that moves' (n.) and the 'amount of movement' (num.) is in the linguistic form of *in the amount of*, rather than *in* as in the other two configurations.

Pattern 3 (N=2, 20%) is found in configurations 5 and 6, with two instances of 'movement' (n.) included. A major difference between configurations 5 and 6 is in the second instance of 'movement' (n.), which is realized by *would decrease/increase* in configuration 5 and *would increase/decrease* in configuration 6, as in "an increase/decrease of 100 basis points in interest rates, with all other variables held constant, would decrease/increase the profit before taxation for the year by approximately HK\$265 million" (line 22, configuration 5) and "a general increase/decrease of 1% (2008: 1%) in interest rates, with all other variables held constant, would decrease/increase the Group's post-tax profit and total equity by approximately HK\$28 million" (line 25, configuration 6).

The six configurations of *increase/HK\$#/million* are then mapped onto the three local grammatical patterns (Table 4.24c).

Table 4.24c Configurations and local grammatical patterns of *increase/HK\$#/million*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*would increase by HK\$# million*	3 21.43%	pattern 1	3 21.43%

1b	*would increase by approximately HK$# million*	2 14.29%	pattern 1	2 14.29%
1c	*would increase * * * * * * * * * * * by HK$# million*	1 7.14%	unclassified	1 7.14%
1d	*an increase in * * * * * * * * * * of HK$# million*	1 7.14%	pattern 2	1 7.14%
1e	*increase in * * * * * * * * * of HK$# million*	1 7.14%	pattern 2	1 7.14%
1f	*the increase in * * * * * in the amount of HK$# million*	1 7.14%	pattern 2	1 7.14%
2	*would increase/decrease * * * * by HK$# million*	1 7.14%	unclassified	1 7.14%
3	*an increase/decrease of HK$# million and HK$# million respectively*	1 7.14%	unclassified	1 7.14%
4	*a #% increase/decrease in * * * * * * * will decrease/increase * * * * * * * by approximately HK$# million*	1 7.14%	unclassified	1 7.14%
5	*an increase/decrease of # basis points in * *, with all other variables held constant, would decrease/increase * * * * * * * by approximately HK$# million*	1 7.14%	pattern 3	1 7.14%
6	*a general increase/decrease of #% in * *, with all other variables held constant, would increase/decrease * * * * * * * by approximately HK$# million*	1 7.14%	pattern 3	1 7.14%

Each of the configurations is realized in only one local grammatical pattern, except for those not classified due to their unique grammatical feature. The diversity of the configurations of linguistic forms of *increase/HK$#/million* can be attributable to the variation of part of speech of *increase* and its co-selection with *decrease* in five configurations, sometimes even with positional variations.

4.5.1.4 *Increased/HK$#/million*

In the case of *increased/HK$#/million*, 12 co-selections are found in 12 concordance lines, with 10 of which indicating upward movement (83.33%), e.g. "total liabilities would have increased by HK$3,261 million or 0.9%" (line 4), and 2 (16.67%) indicating unspecified movement, e.g. "The equity would be decreased/increased by approximately HK$34 million and HK$36 million, respectively" (line 1). In this

example, the co-selection of *increased* and *decreased* in the form of *decreased/increased* indicates an estimation of possible movement, but it cannot be specified whether it is upward movement or downward movement. Since the two occurrences of the phraseology indicating unspecified movement does not meet the cutoff of 10, they are not included in the study. Only the local grammar of *increased/HK$#/million* expressing the meaning of upward movement is studied, with two local grammatical patterns identified in 7 of the 10 lines analysed (70%) (Table 4.25a). A detailed description of the patterns and linguistic realizations is found in Appendix 25.

Table 4.25a Two local grammatical patterns of *increased/HK$#/million* in the accounting discourse

	n	conj	n	v	prep	num	conj	num	adv	
1	the thing that moves			movement	hinge	amount of movement				5 71.43%
	total liabilities			*would have increased*	*by*	*HK$3,261 million or 0.9%*				
2	n	conj	n	v	prep	num	conj	num	adv	2 28.57%
	the thing that moves	hinge	the thing that moves	movement	hinge	amount of movement	hinge	amount of movement	method of presen- tation	
	the Com- pany's share capital	*and*	*share pre- mium account*	*were increased*	*by*	*HK$408 million*	*and*	*HK$13,37 3 million*	*respec- tively*	

All the instances occur in clauses, with *increased* as the central verb, which is connected to the 'amount of movement' (num.) by the 'hinge' (prep.) *by*.

Pattern 1 is the canonical pattern of the phraseology (N=5, 71.43%). It starts with 'the thing that moves' (n.) represented by *total liabilities* (28.57%), *total assets* (28.57%) or *fair value gain recognised for the year in the consolidated income* (14.29%), followed by 'movement' represented by *would have increased* (57.14%) or *will be increased* (14.29%) to indicate the meaning of estimation and the 'hinge' (prep.) *by* +

'amount of movement' in the form of *HK$# million or #%* (57.14%) or *HK$# million* (14.29%), e.g. "total liabilities would have increased by HK$3,261 million or 0.9%" (line 4) and "fair value gain recognised for the year in the consolidated income statement will be increased by HK$165.1 million" (line 12). It is similar to the pattern 'V *by* amount' in Francis et al. (1996), with 'V' represented as 'movement' (v.) and 'amount' represented as 'amount of movement' (num.) in the current study to make the pattern more specific.

Pattern 2 (N=2, 28.57%) is different from the canonical pattern in that it has two instances of 'the thing that moves' (n.) and two instances of 'amount of movement' (num.), connected with each other by the 'hinge' (conj.) *and*, e.g. "The Company's share capital and share premium account were increased by HK$408 million and HK$13,373 million, respectively" (line 9). It can be regarded as a variation of the pattern 'V *by* amount' in Francis et al. (1996) with two amounts involved.

Two main configurations of the linguistic forms of *increased/HK$#/million* have been identified, as follows:

1) *increased ... HK$# million* (N=7, 70%)

a. *increased by HK$# million* (N=6, 60%), e.g. "total assets would have increased by HK$899 million or 0.1%" (line 6)

b. *increased * * * * * * * * * * * HK$# million* (N=1, 10%), as in "The net debt to total capital ratio has increased to a smaller extent mainly due to the offsetting effect of HK$7,994 million of bank balances" (line 14)

2) *increased by HK$# million and HK$# million* (N=3, 30%), e.g. "the Group's revenue and profit before taxation would have been increased by HK$2,906.0 million and HK$294.2 million respectively" (line 10)

The two local grammatical patterns of are mapped onto the two configurations in Table 4.25b.

Table 4.25b Local grammatical patterns and configurations of *increased/HK$#/million*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*increased by HK$# million*	1a	5 71.43%	5 71.43%
2	*increased by HK$# million and HK$# million*	2	2 28.57%	2 28.57%

All the 5 instances in pattern 1 (71.43%) are found in configuration 1a, with the preposition *by* between *increased* and *HK$# million*, e.g. "total assets would have increased by HK$2,161 million or 0.3%" (line 7).

Both instance in pattern 2 (28.57%) are found in configuration 2, with *HK$# million* occurring twice, e.g. "the Group's revenue and profit before taxation would have been increased by HK$2,906.0 million and HK$294.2 million respectively" (line 10).

The two configurations of *increased/HK$#/million* are then mapped onto the two local grammatical patterns (Table 4.25c).

Table 4.25c Configurations and local grammatical patterns of *increased/HK$#/million*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*increased by HK$# million*	5 50%	pattern 1	6 60%
		1	unclassified	

		10%		
1b	*increased * * * * * * * * * * HK$# million*	1 10%	unclassified	1 10%
2	*increased by HK$# million and HK$# million*	2 20%	pattern 2	3 30%
		1 10%	unclassified	

Five instances of configuration 1a (50%) are realized in local grammatical pattern 1, with *HK$# million* representing the only 'amount of movement' (num.), e.g. "total assets would have increased by HK$899 million or 0.1%" (line 6). One instance (10%) is not classified into grammatical patterns, because it has its unique semantic element 'time of movement' (n.), as in "As a result of this amendment, the profit attributable to equity shareholders increased by HK$1,877 million for the year ended 31 December 2009" (line 13).

The instance in configuration 1b (10%) is not classified into local grammatical patterns due to its unique features, as in "The net debt to total capital ratio has increased to a smaller extent mainly due to the offsetting effect of HK$7,994 million of bank balances" (line 14), where *HK$# million* does not represent the 'amount of movement', but part of the 'reason of movement'.

Two instances of configuration 2 (20%) are realized in pattern 2, with the first instance of *HK$# million* representing the 'amount of movement' of the first 'thing that moves', and the second representing the 'amount of movement' of the second 'thing that moves', e.g. "The Company's share capital and share premium account were increased by HK$408 million and HK$13,373 million, respectively" (line 9). The other instance of configuration 2 (10%) is not classified because it has its unique semantic element 'time of movement', as in "Accordingly, the Company's share capital and share premium account were increased by HK$36 million and HK$10,855 million respectively in 2008" (line 11).

4.5.2 Local Grammar of upward movement in the accounting discourse

Only four phraseologies are observed in the discourse of accounting to indicate upward movement and occur at least ten times. They are *increase/fair/value*, *increase/cash/equivalents*, *increase/HK$#/million*, and *increased/HK$#/million*. Nine patterns are observed from the occurrences of the four phraseologies (Appendix 4.40A).

Nine local grammatical patterns are observed, conveying the meaning of upward movement in the accounting discourse. The top four patterns (N=50) constitute 80.65% of all the 62 instances. Pattern 1 *movement* (n.) + *hinge* (prep.) + *the thing that moves* (n.) + *hinge* (prep.) + *specifications of the thing that moves* (n.) is the canonical local grammatical pattern of the phraseology due to its highest frequency (N=16, 25.81%). The other eight patterns are considered to be its variants with various degrees of turbulence. They are derived from the canonical pattern with some semantic elements added (pattern 5) or deleted (pattern 3), some semantic elements added and some others deleted (patterns 2, 6, 7, 8), and the sequence changed and some semantic elements added and some others deleted (patterns 4, 9), in ascending order of the degree of turbulence. The change of sequence only occurs when the words conveying the meaning of 'movement' are verbal group, which is different from the canonical pattern where the word indicating 'movement' is noun.

In the nine local grammatical patterns, three patterns are shared by two phraseologies (N=34, 54.84%). The relationship between pattern and phraseology is presented in the Table 4.40B.

Table 4.40A Distribution of each local grammatical pattern across phraseologies of upward movement in the accounting discourse

	increase/fair /value (N=40)	*increase/cash /equivalents* (N=17)	*increase/HK$# /million* (N=14)	*increased/HK$ #/million* (N=10)

pattern 1 (N=16, 25.81%)	√			
pattern 2 (N=12, 19.35%)	√	√		
pattern 3 (N=12, 19.35%)	√	√		
pattern 4 (N=10, 16.13%)			√	√
pattern 5 (N=3, 4.84%)	√			
pattern 6 (N=3, 4.84%)			√	
pattern 7 (N=2, 3.23%)	√			
pattern 8 (N=2, 3.23%)	√			
pattern 9 (N=2, 3.23%)				√

The three local grammatical patterns shared by phraseologies are patterns 2 (N=12, 19.35%), 3 (N=12, 19.35%), and 4 (N=10, 16.13%). Both *increase/fair/value* and *increase/cash/equivalents* share patterns 2 and 3, in which *increase* is used as a noun. *Increase/HK$#/million* and *increased/HK$#/million* share local grammatical pattern 4, in which *increase* in the phraseology *increase/HK$#/million* is used as part of the verb group *would increase*. It implies that the similarities in the parts of speech of the words indicating movement are likely to result in the similarities in local grammatical patterns. In the instances where the parts of speech of the words indicating movement are different, the phraseologies are not likely to share local grammatical patterns.

The analysis shows that some patterns are similar in construction, and are therefore further combined. The original nine local grammatical patterns are grouped into three Local Grammatical Patterns (Appendix 4.40C), with obligatory elements and optional elements.

The original patterns 1, 2, 3, 5, 7 and 8 are combined into Local Grammatical Pattern 1 (N=47, 75.81%), where the 'movement' is realised by the noun *increase*. 'Movement + hinge + the thing that moves' are the obligatory semantic elements of this pattern.

'Extent', 'modifier of movement', 'specifications of the thing that moves', and 'the thing to be excluded from the movement' are the optional semantic elements.

The original patterns 4 and 9 are combined into Local Grammatical Pattern 2 (N=12, 19.35%), where the 'movement' is realised by verbal groups in the forms of *would increase* and *would have been increased*. 'The thing that moves + movement + hinge + amount of movement' are the obligatory semantic elements of Pattern 2. In some cases, it has another 'thing that moves' and another 'amount of movement', which is followed by 'method of presentation' in the form of *respectively*. They are the optional semantic elements of Local Grammatical Pattern 2.

The original pattern 6 becomes Local Grammatical Pattern 3 (N=3, 4.84%). It has almost the same set of obligatory semantic elements as Pattern 2, i.e. 'movement', 'hinge', 'the thing that moves' and 'amount of movement', but with different sequence. The difference in sequence is attributable to the difference in the part of speech of the words, indicating 'movement' in these two patterns. The 'movement' in Pattern 3 is realised by the noun *increase*, whereas in Local Grammatical Pattern 2, it is realised by verb groups *would increase* and *would have been increased*.

The semantic elements of the four phraseologies are shown in Table 4.40D.

Table 4.40B Distribution of semantic elements across phraseologies of upward movement in the accounting discourse

		increase/fair /value (N=40)	*increase/cash/ equivalents* (N=17)	*increase/HK$#/ million* (N=14)	*increased/HK$#/ million* (N=10)
1	movement	√	√	√	√
2	hinge	√	√	√	√
3	the thing that moves	√	√	√	√
4	amount of movement			√	√
5	modifier of movement	√	√		
6	specifications of the thing	√			

	that moves				
7	extent	√			
8	the thing to be excluded from the movement	√			
9	method of presentation				√

'Movement', 'hinge', and 'the thing that moves' are observed in all the four phraseologies. 'Amount of movement' is shared by *increase/HK$#/million* and *increased/HK$#/million*. 'Modifier of movement' is shared by *increase/fair/value* and *increase/cash/equivalents*. 'Specifications of the thing that moves', 'extent', and 'the thing to be excluded from the movement' are the semantic elements exclusive to *change/fair/value*, and 'method of presentation' is exclusive to *increased/HK$#/million*.

Increase/fair/value and *increase/cash/equivalents* share the same four semantic elements, namely 'movement', 'hinge', 'the thing that moves', and 'modifier of movement'. *Increase/HK$#/million* and *increased/HK$#/million* also share four semantic elements, which are 'movement', 'hinge', 'the thing that moves', and 'amount of movement'. *Increase/fair/value* is the most different one with three unique semantic elements. This difference may be attributable to its highest frequency. *Increased/HK$#/million* has a unique semantic element of 'method of presentation'.

Increase/fair/value and *increase/cash/equivalents* are the most similar pair of phraseologies of upward movement in the accounting discourse in terms of local grammatical patterns and semantic elements, followed by *increase/HK$#/million* and *increased/HK$#/million*. The similarities may be attributable to the similarities in the constituent words (e.g. *HK$#* and *million* in the second pair) and the parts of speech of the words indicating movement (e.g. *increase* <n.> in the first pair).

4.5.3 Phraseologies of downward movement in the accounting discourse

The most frequent five three-word phraseologies conveying the meaning of downward movement in the accounting discourse are *decline/fair/value*, *reduced/carrying/amount*, *decreases/amount/impairment*, *decrease/cash/flows*, and *decrease/event/objectively*.

4.5.3.1 *Decline/fair/value*

In the case of *decline/fair/value*, 20 co-selections are found in 20 concordance lines, with four local grammatical patterns identified in 18 of the 20 lines analysed (90%) (Table 4.26a). A detailed description of the patterns and linguistic realizations is found in Appendix 26.

Table 4.26a Four local grammatical patterns of *decline/fair/value* in the accounting discourse

	adj	n	prep	n	prep	n	prep	
1	modifier of the movement	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	extent of the movement	9 50%
	a significant or prolonged	*decline*	*in*	*the fair value*	*of*	*the security*	*below its cost*	
	adj	n	prep	n			prep	
2	modifier of the movement	movement	hinge	the thing that moves			extent of the movement	3 16.67%
	a significant or prolonged	*decline*	*in*	*fair value*			*below cost*	
	det adj	n	prep	n	prep	n		
3	modifier of the movement	movement	hinge	the thing that moves	hinge	specifications of the thing that moves		3 16.67%
	a subse-quent	*decline*	*in*	*the fair value*	*of*	*the instrument*		
		n	prep	n	prep	n		
4		movement	hinge	the thing that moves	hinge	specifications of the thing that moves		3 16.67%
		the	*in*	*the fair*	*of*	*the financial*		

		decline		*value*		*asset*		

Pattern 1 is the canonical local grammatical pattern (N=9, 50%). It is the most complicated pattern of the four by containing seven semantic elements, having the same set of words representing the semantic elements 'modifier of movement' (adj.), 'movement' (n.), 'hinge' (prep.), 'the thing that moves' (n.), 'hinge' (prep.), and 'extent of the movement' (prep.), which are *a significant or prolonged*, *decline*, *in*, *the fair value*, *of*, and *below its cost* respectively, e.g. "a significant or prolonged decline in the fair value of an investment in an equity instrument below its cost" (line 7). The only difference of the 9 instances lies in the words representing 'specifications of the thing that moves', which are *the security* (22.22%), *an investment in an equity instrument* (11.11%), *the investment* (11.11%), *an equity investment* (11.11%), or *the asset* (11.11%), e.g. "In the case of equity securities classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is considered as an indicator" (line 14) and "a significant or prolonged decline in the fair value of an investment in an equity instrument below its cost" (line 7).

The other three local grammatical patterns are derived from the canonical local grammatical pattern by having certain semantic elements omitted. Pattern 2 (N=3, 16.67%) has 'specifications of the thing that moves' omitted, e.g. "For available-for-sale financial assets, a significant or prolonged decline in fair value below cost is considered to be objective evidence of impairment" (line 4). Patterns 1 and 2 do not have their counterparts in Francis et al. (1998). They may be considered to be unique features of the language of movement in corporate annual reports or in financial settings.

Pattern 3 (N=3, 16.67%) has 'extent of the movement' omitted, e.g. "for an available-for-sale debt security, a subsequent decline in the fair value of the instrument is recognised in the income statement" (line 6). It is similar to the pattern 'N *in* n' in Francis et al. (1998), with 'N' represented as 'modifier of movement (adj.) + movement (n.)' and 'n' represented as 'the thing that moves (n.) + hinge (prep.) +

specifications of the thing that moves (n.)' in the current study. It further exemplifies how the grammatical study of a small set of language can be more precise (Hunston & Sinclair, 2000).

Pattern 4 (N=3, 16.67%) has 'modifier of the movement' and 'extent of the movement' omitted, e.g. "Where there is no further objective evidence of impairment, the decline in the fair value of the financial asset is recognised in other comprehensive income" (line 5). It is similar to the pattern 'N *in* n' in Francis et al. (1998), with 'N' represented as 'movement' and 'n' represented as 'the thing that moves + hinge + specifications of the thing that moves' in the current study.

Two configurations of the linguistic forms of *decline/fair/value* are identified, as follows:

1) *decline in * fair value* (N=17, 85%), e.g. "Where there is no further objective evidence of impairment, the decline in the fair value of the financial asset is recognised in other comprehensive income" (line 19)

2) *decline in fair value* (N=3, 15%), e.g. "Judgement is required when determining whether a decline in fair value has been significant or prolonged" (line 3)

The four local grammatical patterns of *decline/fair/value* are mapped onto the two configurations (Table 4.26b).

Table 4.26b Local grammatical patterns and configurations of *decline/fair/value*

Local grammatical pattern	Configuration	Configuration number	Freq	Total freq
1	*decline in * fair value*	1	9 50%	9 50%
2	*decline in * fair value*	1	2 11.11%	3 16.67%
	decline in fair value	2	1	

			5.56%	
3	*decline in * fair value*	1	3 16.67%	3 16.67%
4	*decline in * fair value*	1	3 16.67%	3 16.67%

Local grammatical patterns 1, 3, and 4 are all found in configuration 1, with *in* and *the* between *decline* and *fair value*. In all the three patterns, *decline* represents 'movement' and *the fair value* represents 'the thing that moves', connected by the preposition *in*. In pattern 1, 'movement' (n.) and 'the thing that moves' (n.) are co-selected with the most semantic elements, namely 'modifier of the movement' (adj.), 'specifications of the thing that moves' (n.), 'extent of the movement' (prep.) and 'hinges' (prep.), e.g. "a significant and prolonged decline in the fair value of the security below its cost is considered an indicator" (line 15). In pattern 3, they are co-selected with all the other semantic elements except for the 'extent of the movement' (prep.), e.g. "a subsequent decline in the fair value of the instrument is recognised in the income statement" (line 6). In pattern 4, 'movement' (n.) and 'the thing that moves' (n.) are only co-selected with 'specifications of the thing that moves' (n.) and 'hinges' (prep.), e.g. "the decline in the fair value of the financial asset is recognised in other comprehensive income" (line 19).

Pattern 2 is found in both configurations. In configuration 1, the word between *decline* and *fair value* is *the* (5.56%) or *their* (5.56%), which are both determiners, as in "when there has been a significant or prolonged decline in the fair value below its cost" (line 11) and "equity securities were determined to be impaired on the basis of significant or prolonged decline in their fair value below cost" (line 20). In configuration 2, no word is found between *decline* and *fair value* and they are co-selected with 'modifier of the movement' (adj.), 'the extent of movement' (prep.), and 'hinge' (prep.), as in "a significant or prolonged decline in fair value below cost is considered to be objective evidence of impairment" (line 4).

Table 4.26c shows the two configurations of *decline/fair/value* mapped onto the four local grammatical patterns.

Table 4.26c Configurations and local grammatical patterns of *decline/fair/value*

Conf no.	Configuration	Freq	Pattern	Total freq
1	*decline in * fair value*	9 45%	pattern 1	17 85%
		3 15%	pattern 3	
		3 15%	pattern 4	
		2 10%	pattern 2	
2	*decline in fair value*	1 5%	pattern 2	3 15%
		2 10%	unclassified	

Configuration 1 (N=17, 85%), which is the canonical configuration, is realized in all the four local grammatical patterns, with the asterisk representing *the* (80%) or *their* (5%). The highest frequency of configuration 1 indicates the wide use of determiner in front of *fair value*. *Decline in * fair value* constitutes 'movement (n.) + hinge (prep.) + the thing that moves (n.)' in the four local grammatical patterns. The differences lie in the semantic elements beyond the configuration, namely the use of 'modifier of the movement', 'specifications of the thing that moves', and 'extent of the movement' in local grammatical 1, the absence of 'specifications of the thing that moves' in pattern 2, the absence of 'extent of the movement' in pattern 3, and the absence of 'modifier of the movement' and 'extent of the movement' in pattern 4.

Only one instance in configuration 2 (5%) is found in pattern 2, which does not contain 'specifications of the thing that moves', as in "a significant or prolonged decline in fair value below cost is considered to be objective evidence of impairment" (line 4). The other two instances (10%) are not classified into local grammatical patterns due to their unique grammatical features.

4.5.3.2 *Reduced/carrying/amount*

In the case of *reduced/carrying/amount*, 21 co-occurrences are found in 18 concordance lines and 14 co-selections in 14 concordance lines, with four local grammatical patterns identified in the 14 lines analysed (100%) (Table 4.27a). A detailed description of the patterns and linguistic realizations is found in Appendix 27.

Table 4.27a Four local grammatical patterns of *reduced/carrying/amount* in the accounting discourse

	n	prep	n	v (passive)	prep	n	
1	the thing that moves	hinge	specifications of the thing that moves	movement	hinge	method of the movement	8 57.14%
	the carrying amount	*of*	*the asset*	*is reduced*	*throu-gh*	*the use of an allowance account*	
	n	prep	n	v (passive)			
2	the thing that moves	hinge	specifications of the thing that moves	movement			2 14.29%
	the total carrying amount	*of*	*such investments*	*is reduced*			
	n	prep	n	v (passive + negative)			
3	the thing that moves	hinge	specifications of the thing that moves	movement			2 14.29%
	the carrying amount	*of*	*the investment in the investee*	*will not be reduced*			
	n			v (passive)	prep	n	
4	the thing that moves			movement	hinge	amount after movement	2 14.29%
	the carrying amount			*is reduced*	*to*	*the estimated recoverable amount*	

All the co-selections of *reduced*, *carrying* and *amount* occur in clauses, with the passive voice *reduced* as part of the 'movement' (v.). Pattern 1 is the canonical local grammatical pattern (N=8, 57.14%). *The carrying amount* always represents 'the thing that moves' (n.), which is connected to 'specifications of the thing that moves' (n.) in the forms including *the asset* (21.43%), *the assets* (14.29%), and *impaired loans on the statement of financial position* (7.14%) by the 'hinge' (prep.) *of*. The 'movement' (v. passive), represented by *is reduced*, is connected to 'method of the movement' (n.) in the form of *the use of an allowance account* (50%) or *the use of impairment allowance accounts* (7.14%) by the 'hinge' (prep.) *through*, e.g. "The carrying amount of the asset is reduced through the use of an allowance account" (line 14) and "The carrying amount of impaired loans on the balance sheet is reduced through the use of impairment allowance accounts" (line 8). This pattern has not been identified in the patterns of verbs in the 'increase', 'decrease', or 'change' group by Francis et al. (1996). It may be regarded as a unique linguistic feature of the language of movement in corporate annual reports or in financial settings.

Pattern 2 (N=2, 14.29%) has 'hinge (prep.) + 'method of the movement' (n.)' omitted from the canonical local grammatical pattern, e.g. "The total carrying amount of such investments is reduced to recognise any identified impairment loss in the value of individual investments" (line 10). This pattern can be interpreted as the passive voice of the pattern 'V n' by Francis et al. (1996), with the 'n' further divided into 'the thing that moves (n.) + hinge (prep.) + specifications of the thing that moves (n.)' in the current study.

Pattern 3 (N=2, 14.29%) has 'hinge (prep.) + 'method of the movement' (n.)' omitted and the 'movement' (v. passive) changed into negative form, e.g. "the carrying amount of the investment in the investee will not be reduced unless that carrying amount is assessed to be impaired" (line 7). The second *carrying amount* is not included in the local grammatical pattern because it occurs in a different clause. It can be understood as the negative form of the passive voice of the pattern 'V n' by Francis et al. (1996),

with the 'n' further divided into 'the thing that moves (n.) + hinge (prep.) + specifications of the thing that moves (n.)' in the current study.

Pattern 4 (N=2, 14.29%) has the highest degree of turbulence from the canonical local grammatical pattern, with 'hinge (prep.) + specifications of the thing that moves (n.)' and 'hinge (prep.) + method of the movement (n.)' omitted and 'hinge (prep.) + amount after movement (n.)' added, e.g. "the carrying amount is reduced to the estimated recoverable amount" (line 18). In this pattern, the 'amount after movement' is not represented by concrete numerals, but by a noun group in the form of *the estimated recoverable amount* to indicate an abstract concept. It can be regarded as an expansion of the passive voice of 'V n' by adding '*to* amount' (Francis et al., 1996), with the 'n' represented as 'the thing that moves' and the 'amount' represented as 'amount after movement' in the current study.

Two main configurations of the linguistic forms of *reduced/carrying/amount* are identified, as follows:

1) *carrying amount … reduced* (N=12, 85.71%)

a. *the carrying amount of * * is reduced through the use of an allowance account* (N=5, 35.71%), e.g. "The carrying amount of the asset is reduced through the use of an allowance account" (line 14)

b. *the total carrying amount of * * is reduced* (N=2, 14.29%), e.g. "The total carrying amount of such investments is reduced to recognise any identified impairment loss in the value of individual investments" (line 10)

c. *the carrying amount of * * * * * will not be reduced* (N=2, 14.29%), e.g. "the carrying amount of the investment in the investee will not be reduced unless that carrying amount is assessed to be impaired" (line 6)

d. *the carrying amount of * * * * * * * * is reduced through the use of an allowance account* (N=1, 7.14%), as in "The carrying amount of impaired loans on the statement of financial position is reduced through the use of an allowance account" (line 5)

e. *the carrying amount of * * * * * * is reduced through the use of impairment allowance accounts* (N=1, 7.14%), as in "The carrying amount of impaired loans on the balance sheet is reduced through the use of impairment allowance accounts" (line 8)

f. *the carrying amount of * * * is reduced through the use of an allowance account* (N=1, 7.14%), as in "The carrying amount of loans and receivables is reduced through the use of an allowance account" (line 9)

2) *carrying amount ... reduced ... amount* (N=2, 14.29%)

the carrying amount is reduced to the estimated recoverable amount (N=2, 14.29%), e.g. "the carrying amount is reduced to the estimated recoverable amount and an impairment loss is recognised in the income statement" (line 18)

The four local grammatical patterns of *reduced/carrying/amount* are mapped onto the two configurations (Table 4.27b).

Table 4.27b Local grammatical patterns and configurations of *reduced/carrying/amount*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*the carrying amount of * * is reduced through the use of an allowance account*	1a	5 35.71%	8 57.14 %
	*the carrying amount of * * * * * * * * is reduced through the use of an allowance account*	1d	1 7.14%	
	*the carrying amount of * * * * * * is reduced through the use of impairment allowance accounts*	1e	1 7.14%	
	*the carrying amount of * * * is reduced through the use of an allowance account*	1f	1 7.14%	

2	*the total carrying amount of * * is reduced*	1b	2 14.29%	2 14.29 %
3	*the carrying amount of * * * * * will not be reduced*	1c	2 14.29%	2 14.29 %
4	*the carrying amount is reduced to the estimated recoverable amount*	2	2 14.29%	2 14.29 %

Pattern 1 is found in configurations 1a (N=5, 35.71%), 1d (N=1, 7.14%), 1e (N=1, 7.14%) and 1f (N=1, 7.14%). The four configurations have the same set of words representing 'the thing that moves', 'hinges', and 'movement'. The wide distribution of the local grammatical pattern among configurations is attributable to the difference in the length of 'specifications of the thing that moves', represented by asterisks, and the 'method of movement', represented by *the use of an allowance account* (50%) or *the use of impairment allowance accounts* (7.14%), e.g. "The carrying amount of the assets is reduced through the use of an allowance account" (line 13) and "The carrying amount of impaired loans on the balance sheet is reduced through the use of impairment allowance accounts" (line 8).

Each of the patterns 2, 3, and 4 is found in only one configuration. Pattern 2 is found in configuration 1b (N=2, 14.29%), which is different from the other patterns in that 'the thing that moves' is represented by *the total carrying amount*, rather than by *the carrying amount*, e.g. "The total carrying amount of such investments is reduced to recognise any identified impairment loss in the value of individual investments" (line 10).

Pattern 3 is found in configuration 1c (N=2, 14.29%), with the 'movement' (v. passive) represented by *will not be reduced*, e.g. "the carrying amount of the investment in the investee will not be reduced" (line 6). Pattern 4 is found in configuration 2, with *amount* occurring twice. One occurs as part of 'the thing that moves', and the other occurs as part of the 'amount after movement', e.g. "the carrying amount is reduced to the estimated recoverable amount" (line 18).

The two configurations of *reduced/carrying/amount* are then mapped onto the four local grammatical patterns (Table 4.27c).

Table 4.27c Configurations and local grammatical patterns of *reduced/carrying/amount*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*the carrying amount of * * is reduced through the use of an allowance account*	5 35.71%	pattern 1	5 35.71%
1b	*the total carrying amount of * * is reduced*	2 14.29%	pattern 2	2 14.29%
1c	*the carrying amount of * * * * * will not be reduced*	2 14.29%	pattern 3	2 14.29%
1d	*the carrying amount of * * * * * * * * is reduced through the use of an allowance account*	1 7.14%	pattern 1	1 7.14%
1e	*the carrying amount of * * * * * * is reduced through the use of impairment allowance accounts*	1 7.14%	pattern 1	1 7.14%
1f	*the carrying amount of * * * is reduced through the use of an allowance account*	1 7.14%	pattern 1	1 7.14%
2)	*the carrying amount is reduced to the estimated recoverable amount*	2 14.29%	pattern 4	2 14.29%

Table 4.27c shows that each configuration is realized in only one local grammatical pattern. Configuration 1b vs. pattern 2, configuration 1c vs. pattern 3, and configuration 2 vs. pattern 4 have the relationship of one-to-one matching. Configurations 1a, 1d, 1e and 1f are all realized in pattern 5. The major difference among the four configurations is in the number of asterisks, which represent

'specifications of the thing that moves' in all the instances, and therefore have no influence on the local grammatical pattern.

4.5.3.3 *Decreases/amount/impairment*

In the case of *decreases/amount/impairment*, 10 co-selections are found in 10 concordance lines, with one local grammatical pattern identified in the 10 lines analysed (100%) (Table 4.28a). A detailed description of the patterns and linguistic realizations is found in Appendix 28.

Table 4.28a One local grammatical pattern of *decreases/amount/impairment* in the accounting discourse

	n	prep	n	v	10 100%
1	the thing that moves	hinge	specifications of the thing that moves	movement	
	the amount	*of*	*an impairment loss*	*decreases*	

All the 10 instances (100%) occur in only one local grammatical pattern and the words representing the semantic elements are rather fixed. 'The thing that moves' (n.), represented by *the amount*, is always connected to 'specifications of the thing that moves' (n.) by the 'hinge' (prep.) *of*, with the 'movement' (v.) represented by *decreases*. Slight variation is observed in 'specifications of the thing that moves' (n.), which are represented by *an impairment loss* (70%), *the impairment loss* (20%) or *allowance for impairment losses* (10%), e.g. "If in a subsequent period the amount of an impairment loss decreases and the decrease can be linked objectively to an event" (line 5), "If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event" (line 2), and "If, in a subsequent period, the amount of allowance for impairment losses decreases and the decrease can be related objectively to an event" (line 1). In Francis et al. (1996), this pattern is represented simply as 'V', since it focuses on the patterns of all the English verbs;

while in the current study, it is expanded to include the subject of the verb, which is 'the thing that moves (n.) + hinge (prep.) + specifications of the thing that moves (n.)', to give a complete description of the meaning construal of movement, which is the focus of the current study.

Regarding configurations of *decreases/amount/impairment*, the constituent words of the phraseology are always in the sequence of *amount … impairment… decreases* (100%), with two configurations identified, as follows:

1) *the amount of * impairment loss decreases* (N=9, 90%). In 7 instances (70%), the asterisk represents *an*, e.g. "If in a subsequent period the amount of an impairment loss decreases and the decrease can be linked objectively to an event" (line 4); in 2 instance (20%), it represents *the*, as in "If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event" (line 3).

2) *the amount of allowance for impairment losses decreases* (N=1, 10%), as in "If, in a subsequent period, the amount of allowance for impairment losses decreases and the decrease can be related objectively to an event" (line 1)

The difference between these two configurations lies in the length of 'specifications of the thing that moves' (n.); in other words, three words in configuration 1 and four words in configuration 2. This phraseology occurs in the sections entitled 'the summary of significant accounting policies' to clarify the accounting principles adopted in the financial statements.

4.5.3.4 *Decrease/cash/flows*

In the case of *decrease/cash/flows*, 10 co-selections are found in 10 concordance lines, with one local grammatical pattern identified in 9 instances (90%) (Table 4.29a). A detailed description of the patterns and linguistic realizations is found in Appendix 29.

Table 4.29a One local grammatical pattern of *decrease/cash/flows* in the accounting discourse

	adj	n	prep	n	prep	n	9 100%
1	modifier of movement	movement	hinge	the thing that moves	hinge	reason of movement	
	a measurable	*decrease*	*in*	*the estimated future cash flows*	*from*	*a portfolio of loans*	

The 9 occurrences of the phraseology have the same sets of words indicating 'modifier of movement' (adj.), 'movement' (n.), 'hinges' (prep.), and 'the thing that moves' (n.). The difference lies in the 'reason of movement' (n.), which is represented by noun groups including *a portfolio of loans* (22.22%), *such loans and advances* (22.22%), and *a group of financial assets* (22.22%), e.g. "whether there is any observable data indicating that there is a measurable decrease in the estimated future cash flows from a portfolio of loans" (line 7), "Other observable data indicating that there is a measurable decrease in the estimated future cash flows from such loans and advances" (line 8), and "(vi) observable data indicating that there is a measurable decrease in the estimated future cash flows from a group of financial assets" (line 11). It can be interpreted as an expansion of the pattern 'N *in* n' in Francis et al. (1998) by adding '*from* n' represented as 'hinge (prep.) + reason of movement (n.)' in the current study.

Regarding configurations of *decrease/cash/flows*, the constituent words of the phraseology always occur in the sequence of *decrease ... cash flows*, without any positional variants. Five configurations of linguistic forms are identified, as follows:

1) *a measurable decrease in the estimated future cash flows from * * * * (N=4, 40%). The four asterisks represent the noun group *a portfolio of loans* (20%) or *such loans and advances* (20%), e.g. "whether there is any observable data indicating that there is a measurable decrease in the estimated future cash flows from a portfolio of loans" (line 7) and "Other observable data indicating that there is a measurable decrease in the estimated future cash flows from such loans and advances" (line 8). It is the canonical configuration of *decrease/cash/flows*.

2) *a measurable decrease in the estimated future cash flows from a group of financial assets* (N=2, 20%). In this configuration, the 'reason of movement' is represented by *a group of financial assets*, e.g. "(vi) observable data indicating that there is a measurable decrease in the estimated future cash flows from a group of financial assets" (line 9).

3) *a measurable decrease in the estimated future cash flows from a portfolio of loans and advances* (N=2, 20%). The 'reason of movement' is represented by the six-word noun group *a portfolio of loans and advances*, e.g. "whether there is any observable data indicating that there is a measurable decrease in the estimated future cash flows from a portfolio of loans and advances" (line 12).

4) *a measurable decrease in the estimated future cash flows from such debt securities* (N=1, 10%). The 'reason of movement' is represented by the three-word noun group *such debt securities*, e.g. "other observable data indicating that there is a measurable decrease in the estimated future cash flows from such debt securities" (line 12).

5) *a decrease in estimated future cash flows* (N=1, 10%). It is the only instance that is not classified into the local grammatical pattern, because it does not contain 'modifier of movement' (adj.) and 'reason of movement' (n.) as the others, as in "whether there is a decrease in estimated future cash flows" (line 6).

The first four configurations have only one local grammatical pattern. The only difference among the first four configurations is in the length of 'reason of movement', i.e. four words in configuration 1, five words in configuration 2, six words in configuration 3, and three words in configuration 4. Configuration 5 is not classified due to its unique grammatical features. It is due to the infrequency of the usage and the limitation of the data size.

The similarity of the phraseology is due to occurrence in the same section of 'key sources of estimation uncertainty' in 'accounting estimates and judgements', with the

same function to clarify how estimations are made to ensure the accuracy of the financial statements to the largest extent.

4.5.3.5 *Decrease/event/objectively*

In the case of *decrease/event/objectively*, 10 co-selections are found in 10 concordance lines, with one local grammatical pattern identified in all the 10 lines analysed (100%) (Table 4.30a). A detailed description of the patterns and linguistic realizations is found in Appendix 30.

Table 4.30a One local grammatical pattern of *decrease/event/objectively* in the accounting discourse

	n	v	adv	prep	n	10 100%
1	movement	connection	nature of connection	hinge	reason of movement	
	the decrease	*can be linked*	*objectively*	*to*	*an event occurring after the impairment loss was recognised*	

This phraseology has its unique semantic elements 'connection' (v.), represented by *can be linked* (50%) or *can be related* (50%), and 'nature of connection' (adv.), represented by *objectively* (100%), which is connected to the 'reason of movement' (n.) in the form of *an event occurring after the impairment loss was recognised* (60%) or *an event occurring after the impairment was recognised* (40%) by the 'hinge' (prep.) *to*, with the 'movement' (n.) represented by *the decrease* (100%), e.g. "If in a subsequent period the amount of an impairment loss decreases and the decrease can be linked objectively to an event occurring after the impairment loss was recognised" (line 6) and "If, in a subsequent period, the amount of an impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised" (line 1). In Francis et al. (1996), this local grammatical pattern is represented as the passive voice of 'V n *to* n', with the verbs in these instances classified as the 'link' group, which is labeled similarly as 'connection' (v.) in the

current study. Emphasis is given to the verbs of the pattern. But since the focus of the current study is on the phraseologies of movement, emphasis is balanced among the words indicating 'movement' and the words co-selected with them.

All the occurrences of the phraseology are found in one configuration, namely *the decrease can be * objectively to an event* (100%). The asterisk represents *linked* (50%) or *related* (50%), e.g. "If in a subsequent period the amount of an impairment loss decreases and the decrease can be linked objectively to an event occurring after the impairment loss was recognised" (line 6) and "If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised" (line 2).

The phraseology is different in that it has only one linguistic form and one local grammatical pattern, because it occurs in the sections entitled 'the summary of significant accounting policies' to clarify the accounting principles adopted in the financial statements. The accounting policies usually have relatively fixed wording.

4.5.4 Local Grammar of downward movement in the accounting discourse

The top five most frequent phraseologies conveying the meaning of downward movement in the accounting discourse are *decline/fair/value*, *reduced/carrying/amount*, *decreases/amount/impairment*, *decrease/cash/flows,* and *decrease/event/objectively*. Ten local grammatical patterns are observed in the five phraseologies (Appendix 4.41).

The five phraseologies of downward movement in the accounting discourse are realized in ten local grammatical patterns, the top five of which cover 75.41% (N=46) of the total 61 instances. Since patterns 1 and 2 are the most frequent with the same frequency (N=10, 16.39%), they should have been considered to be the canonical local grammatical patterns of the phraseologies. However, findings show that when the 'movement' is represented by a verb or a verb group, the occurrence of the

phraseology forms a clause; and when the 'movement' is represented by a noun or a noun group, the occurrence of the phraseology usually forms a noun group. Local grammatical pattern 2, which is exclusive to *decrease/event/objectively*, is the only exception, where the 'movement' is represented by a noun group, but the phraseology occurs in a clause, e.g. "the increase can be linked objectively to an event occurring after the impairment loss was recognised" (line 6 of *decrease/event/objectively*). Since no other patterns share this feature with pattern 2, it is not considered to be the canonical local grammatical pattern in this situation. Pattern 1 is therefore the only canonical local grammatical pattern of the phraseologies of downward movement in the accounting discourse, and the other local grammatical patterns are its variants with various degrees of turbulence.

They are derived from the canonical local grammatical pattern with some semantic elements added (patterns 5, 6, and 10), some semantic elements added and some others deleted (pattern 2), and the sequence changed and some semantic elements added (patterns 3, 4, 7, 8, 9). The change of sequence only occurs when the part of speech of the words indicating movement (n.) is different from that in the canonical pattern (v.).

No pattern is shared by the phraseologies, i.e. each phraseology has its unique local grammatical patterns. The relationship between pattern and phraseology is shown in Table 4.41B.

Table 4.41A Distribution of each local grammatical pattern across phraseologies of downward movement in the accounting discourse

	decline/fair /value (N=20)	*reduced/ carrying /amount* (N=14)	*decreases/amount/ impairment* (N=10)	*decrease/cash /flows* (N=10)	*decrease/event /objectively* (N=10)
pattern 1 (N=10, 16.39%)			√		

pattern 2 (N=10, 16.39%)					√
pattern 3 (N=9, 14.75%)	√				
pattern 4 (N=9, 14.75%)				√	
pattern 5 (N=8, 13.11%)		√			
pattern 6 (N=4, 6.56%)		√			
pattern 7 (N=3, 4.92%)	√				
pattern 8 (N=3, 4.92%)	√				
pattern 9 (N=3, 4.92%)	√				
pattern 10 (N=2, 3.28%)		√			

Table 4.41B shows that *decline/fair/value* and *reduced/carrying/amount* have four and three patterns, and *decreases/amount/impairment*, *decrease/cash/flows* and *decrease/event/objectively* have only one pattern.

Although no local grammatical pattern is shared by at least two phraseologies, similar constitution is observed in some patterns, and the ten local grammatical patterns in Tables 4.41A and 4.41B are therefore further grouped into three Local Grammatical Patterns with obligatory elements and optional elements (Appendix 4.41C).

The original local grammatical patterns 3, 4, 7, 8 and 9 are combined into Local Grammatical Pattern 1 (N=27, 44.26%), in which the words indicating 'movement' are nouns. It contains 'movement + hinge + the thing that moves' as obligatory semantic elements. Some of the instances also contain the semantic elements of 'modifier of movement', 'specifications of the thing that moves', and 'extent of movement' or 'reason of movement', which are optional in Local Grammatical Pattern 1.

The original patterns 1, 5, 6 and 10 are combined into Local Grammatical Pattern 2 (N=24, 39.34%), where the words indicating 'movement' are verbs or verbal groups. It has 'the thing that moves' and 'movement' as obligatory semantic elements. 'The thing that moves' always precedes 'movement', in some cases inserted with 'hinge + specifications of the thing that moves'. In addition to 'hinge' and 'specifications of the thing that moves', Local Grammatical Pattern 2 also has optional semantic elements of 'method of movement' or 'extent of movement'.

The original pattern 2 becomes Pattern 3 (N=10, 16.39%). It is not combined with the other patterns, because it does not contain the semantic element of 'the thing that moves' as the other two Local Grammatical Patterns and has its exclusive semantic elements of 'connect' and 'nature of connection'.

The semantic elements of the five phraseologies are presented in Table 4.41D.

Table 4.41B Distribution of semantic elements across phraseologies of downward movement in the accounting discourse

		decline/fair /value (N=20)	*reduced/ carrying /amount* (N=14)	*decreases/a mount/ impairment* (N=10)	*decrease/ cash/flows* (N=10)	*decrease/event/ objectively* (N=10)
1	movement	√	√	√	√	√
2	the thing	√	√	√	√	

	that moves					
3	hinge	√	√		√	√
4	modifier of movement	√			√	
5	specifications of the thing that moves	√	√			
6	extent of movement	√	√			
7	reason of movement				√	√
8	connect					√
9	nature of connection					√
10	method of movement		√			

'Movement' is the only semantic element in all the five phraseologies. 'The thing that moves' is found in all the phraseologies, except for *decrease/event/objectively*; 'hinge' is found in all the phraseologies, except for *decreases/amount/impairment*. 'Modifier of movement' is observed in *decline/fair/value* and *decrease/cash/flows*. 'Specifications of the thing that moves' and 'extent of movement' are found in *decline/fair/value* and *reduced/carrying/amount*; 'reason of movement' in *decrease/cash/flows* and *decrease/event/objectively*. The semantic elements of 'connect' and 'nature of connection' are exclusive to *decrease/event/objectively*; 'method of movement' is exclusive to *reduced/carrying/amount*.

Decline/fair/value and *reduced/carrying/amount* are the most similar pair with five common semantic elements, namely 'movement', 'the thing that moves', 'hinge',

'specifications of the thing that moves' and 'extent of movement'. *Decline/fair/value* and *decrease/cash/flows* share four semantic elements, which are 'movement', 'the thing that moves', 'hinge', and 'modifier of movement'. *Decrease/event/objectively* shares three semantic elements with *decrease/cash/flows*, namely 'movement', 'hinge' and 'reason of movement'. It has two unique semantic elements: 'connect' and 'nature of connection'. *Decreases/amount/impairment* is different by having only two semantic elements, namely 'movement' and 'the thing that moves'.

4.5.5 Phraseologies of unspecified movement in the accounting discourse

The most frequent five three-word phraseologies conveying the meaning of unspecified movement in the discourse of accounting are *changes/fair/value*, *change/fair/value*, *changes/equity/statement*, *changes/income/statement* and *changes/interest/rates*. For each phraseology, up to 40 concordance lines were randomly selected and analysed to find out its local grammatical patterns, configurations of linguistic forms, and the relationship between grammar and linguistic form.

4.5.5.1 *Changes/fair/value*

In the case of *changes/fair/value*, 383 co-occurrences are found in 275 concordance lines and 246 co-selections in 230 concordance lines. Six local grammatical patterns are identified in the 34 of the 40 lines analysed (85%) (Table 4.31a). A detailed description of the patterns and linguistic realizations is found in Appendix 31.

Table 4.31a Six local grammatical patterns of *changes/fair/value* in the accounting discourse

			n	prep	n	prep	n	
1			movement	hinge	the thing that moves	hinge	specifications of the thing that moves	16 47.06%
			changes	*in*	*the fair value*	*of*	*the hedged*	

							items	
2			n	prep	n			8 23.53%
			movement	hinge	the thing that moves			
			changes	*in*	*fair value*			
3	n	prep	n	prep	n	prep	n	3 8.82%
	influence of the movement	hinge	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	
	all gains and losses	*from*	*changes*	*in*	*the fair value*	*of*	*financial assets and liabilities designated at fair value*	
4	n	prep	n	prep	n			3 8.82%
	influence of the movement	hinge	movement	hinge	the thing that moves			
	gains	*from*	*changes*	*in*	*fair value*			
5	n	prep	n	prep	n	prep	n	2 5.88%
	portion of the movement	hinge	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	
	the effective portion	*of*	*changes*	*in*	*the fair value*	*of*	*derivatives that are designated and qualify as cash flow hedges*	
6			n	n	prep	n		2 5.88%
			the thing that moves	movement	hinge	specifications of the thing that moves		
			fair value	*changes*	*of*	*available for sale investment securities*		

The first pattern (N=16, 47.06%) is the canonical local grammatical pattern of the phraseology due to its highest frequency. The 'movement' (n.) is in the linguistic forms of *changes* (41.18%), e.g. "changes in the fair value of the hedged items" (line 68), or *any changes* (5.88%), e.g. "along with any changes in the fair value of the hedged assets or liabilities that are attributable to the hedged risk" (line 47). 'The thing that moves' (n.), represented by *the fair value* (32.35%), e.g. "Changes in the fair value of monetary investment denominated in a foreign currency" (line 32), or *fair value*

(14.71%), e.g. "Changes in fair value of assets of the Schemes are as follows" (line 203), is connected to the 'movement' (n.) by the 'hinge' (prep.) *in*. At the right of 'the thing that moves' (n.), it is always connected by the 'hinge' (prep.) *of* to 'specifications of the thing that moves' (n.), which are found in various linguistic forms including *the hedged items* (5.88%), *monetary securities denominated in foreign currency* (5.88%), and *available-for-sale equity securities* (5.88%), e.g. "changes in the fair value of the hedged items" (line 63), "Changes in the fair value of monetary securities denominated in foreign currency" (line 226), and "Changes in fair value of available-for-sale equity securities" (line 159). It is similar to the pattern 'N *in* n' (Francis et al., 1998), with the 'N' represented as 'movement' and the 'n' further divided into 'the thing that moves + hinge + specifications of the thing that moves' in the current study to specify the language of movement.

In pattern 2 (N=8, 23.53%), 'hinge (prep.) + specifications of the thing that moves (n.)' is omitted from the canonical pattern, e.g. "Changes in fair value recognised in the income statement" (line 33). It has its counterpart 'N *in* n' in Francis et al. (1998), with 'N' represented as 'movement' and 'n' represented as 'the thing that moves' in the current study.

Pattern 3 (N=3, 8.82%) has 'influence of the movement (n.) + hinge (prep.)' added to the canonical pattern, e.g. "Gains and losses from changes in the fair value of such assets (excluding the interest component) are reported in the net trading" (line 85).

Pattern 4 (N=3, 8.82%) has 'influence of the movement (n.) + hinge (prep.)' added and 'hinge (prep.) + specifications of the thing that moves (n.)' omitted, e.g. "any gains or losses from changes in fair value are recognised in the statement of comprehensive income" (line 80).

Patterns 3 and 4 can be understood as a combination of the patterns 'N *from* n' and 'N *in* n' (Francis et al., 1998). 'N' in the pattern 'N *from* n' is represented by the words of 'fallout group', which "refer to things that happen or arise as a result of something"

(ibid.: 162). In the current study, it is labeled as 'influence of the movement' (n.) to highlight the relationship with 'movement'. The 'N' in the pattern 'N *in* n' is represented as 'movement' in the current study.

In pattern 5 (N=2, 5.88%), 'portion of the movement (n.) + hinge (prep.)' is added to the beginning of the canonical pattern, e.g. "The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised" (line 248). This pattern can be interpreted as a combination of 'N *of* n' and 'N *in* n' in Francis et al. (1998). The 'N' in the pattern 'N *of* n' is categorised into the 'percentage' group, which "indicates a portion of a larger thing or group" (ibid.: 189). It is represented as 'portion of the movement' (n.) to highlight the relationship with movement.

In pattern 6 (N=2, 5.88%), the sequence of 'movement' (n.) and 'the thing that moves' (n.) is changed, e.g. "Fair value changes of available for sale investment securities" (line 116). This pattern does not have its counterpart in the patterns of the nouns indicating 'increase', 'decrease', or 'change'. It may be a unique feature of the language of movement in corporate annual reports or in financial settings.

Three main configurations of the linguistic forms of *changes/fair/value* are identified, as follows:

1) *changes … fair value* (N=35, 87.5%)

a. *changes in * fair value* (N=17, 42.5%). e.g. "together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk" (line 153)

b. *changes in fair value* (N=16, 40%), e.g. "Profit from operations after changes in fair value of investment properties" (line 26)

c. *changes in * * * * fair value* (N=1, 2.5%), as in "The sensitivity analysis for interest rate risk illustrates how changes in interest income and the fair value of future cash flows of a financial instrument will fluctuate" (line 261)

d. *changes in * * * * * fair value* (N=1, 2.5%), as in "changes in market interest rates affect their fair value" (line 263)

2) *fair value changes* (N=4, 10%), e.g. "Fair value changes of available for sale investment securities charged to equity" (line 116)

3) *fair value changes … fair value* (N=1, 2.5%)

*fair value changes of * * * fair value* (N=1, 2.5%), as in "Fair value changes of financial instruments at fair value through profit or loss" (line 142)

Configuration 1a (N=17, 42.5%) is considered the canonical configuration of the phraseology due to its highest frequency. The other configurations are its variants with various degrees of turbulence with word omitted (1b), words added (1c and 1d), sequence changed and words omitted (2), and sequence changed, some words omitted, and some added (3).

The six local grammatical patterns of *changes/fair/value* are mapped onto the six configurations (Table 4.31b).

Table 4.31b Local grammatical patterns and configurations of *changes/fair/value*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*changes in * fair value*	1a	11 32.35%	16 47.06%
	changes in fair value	1b	5 14.71%	
2	*changes in fair value*	1b	7	8

			20.59%	23.53%
	*changes in * fair value*	1a	1 2.94%	
3	*changes in * fair value*	1a	3 8.82%	3 8.82%
4	*changes in fair value*	1b	3 8.82%	3 8.82%
5	*changes in * fair value*	1a	2 5.88%	2 5.88%
6	*fair value changes*	2	1 2.94%	2 5.88%
	*fair value changes of * * * fair value*	3	1 2.94%	

The instances of pattern 1 (N=16, 47.06%) are found in configurations 1a *changes in * fair value* (N=11, 32.35%), with the asterisk representing the determiner *the*, e.g. "Changes in the fair value of monetary investment denominated in a foreign currency" (line 32), and 1b *changes in fair value* (N=5, 14.71%), e.g. "Changes in fair value of available-for-sale equity securities" (line 159). Configuration 1a takes the majority of the instances in pattern 1.

In the instances of pattern 2 (N=8, 23.53%), which are also found in these two configurations, configuration 1b *changes in fair value* (N=7, 20.59%) is more frequent , e.g. "Changes in fair value are recognized in profit or loss" (line 114). In the only instance of configuration 1a *changes in * fair value*, the asterisk represents *their*, as in "Changes in their fair value directly impact the Group's income statement" (line 115), instead of *the* as in all the other instances.

The 3 instances in pattern 3 (8.82%) are all found in configuration 1a *changes in * fair value*, with the asterisk representing *the*, e.g. "Trading income comprises all gains and losses from changes in the fair value of financial assets and financial liabilities held for trading" (line 214).

The instances in pattern 4 (N=3, 8.82%) are found in configuration 1b *changes in fair value*, with *in* between *changes* and *fair value*, e.g. "Gains from changes in fair value" (line 186).

Those in pattern 5 (N=2, 5.88%) are both found in configuration 1a *changes in * fair value*, with *in* and *the* between *changes* and *fair value*, e.g. "The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised" (line 248).

One of the 2 instance in pattern 6 (2.94%) is found in configuration 2 *fair value changes*, as in "Fair value changes of available for sale investment securities charged to equity" (line 116), and the other (2.94%) found in configuration 3 *fair value changes of * * * fair value*, as in "Fair value changes of financial instruments at fair value through profit or loss" (line 142). The *fair value* preceding *changes* represents 'the thing that moves', and the second *fair value* in configuration 3 represents part of 'specifications of the thing that moves'.

The analysis indicates that in the local grammatical patterns 1, 3, and 5 with the semantic element 'specifications of the thing that moves', configuration 1a *changes in * fair value* dominates the frequency (76.19%); while in the local grammatical patterns 2 and 4 without 'specifications of the thing that moves', configuration 1b *changes in fair value* dominates the frequency (90.91%). Pattern 6 found in configurations 2 and 3 is an exception due to its different word sequence of *changes* and *fair value*.

The six configurations of *changes/fair/value* are then mapped onto the six local grammatical patterns (Table 4.31c).

Table 4.31c Configurations and local grammatical patterns of *changes/fair/value*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*changes in * fair value*	11 27.5%	pattern 1	17 42.5%
		3 7.5%	pattern 3	
		2 5%	pattern 5	
		1 2.5%	pattern 2	
1b	*changes in fair value*	7 17.5%	pattern 2	16 40%
		5 12.5%	pattern 1	
		3 7.5%	pattern 4	
		1 2.5%	unclassified	
1c	*changes in * * * * fair value*	1 2.5%	unclassified	1 2.5%
1d	*changes in * * * * * fair value*	1 2.5%	unclassified	1 2.5%
2	*fair value changes*	1 2.5%	pattern 6	4 10%
		3 7.5%	unclassified	
3	*fair value changes of * * * fair value*	1 2.5%	pattern 6	1 2.5%

Configurations 1a (N=17, 42.5%) and 1b (N=16, 40%) are the most diversified configurations, realized in four and three local grammatical patterns respectively due to their high frequency. Configuration 3 and one instance in configuration 2 are found in pattern 6, with *changes* preceded by *fair value*. The other 6 instances are not classified into local grammatical patterns due to their unique grammatical features.

4.5.5.2 *Change/fair/value*

In the case of *change/fair/value*, 136 co-occurrences are found in 120 concordance lines and 98 co-selections in 97 concordance lines. Eight local grammatical patterns are identified in 35 of the 40 lines analysed (87.5%) (Table 4.32a). A detailed description of the patterns and linguistic realizations is found in Appendix 32.

Table 4.32a Eight local grammatical patterns of *change/fair/value* in the accounting discourse

#								
1		n		prep	n	prep	n	20 57.14%
		movement		hinge	the thing that moves	hinge	specifications of the thing that moves	
		change		*in*	*fair value*	*of*	*investment properties*	
2	n	prep	n	prep	n	prep	n	3 8.57%
	profit	hinge	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	
	operating profit	*before*	*change*	*in*	*fair value*	*of*	*investment properties*	
3		adj	n	prep	n	prep	n	2 5.71%
		modifier of the movement	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	
		net	*change*	*in*	*fair value*	*of*	*other financial instruments designated at fair value*	
4		n		prep	n			2 5.71%
		movement		hinge	the thing that moves			
		change		*in*	*fair value*			
5		adj	n	prep	n			2 5.71%
		modifier of movement	movement	hinge	the thing that moves			
		the initial	*change*	*in*	*fair value*			
6	num	prep	n	prep	n			2 5.71%
	portion of the	hinge	movement	hinge	the thing that			

	n	prep	adj	n	prep	n	prep	n	
	movement					moves			
	10 per cent	*of*	*change*		*in*	*fair value*			
7	portion of the movement	hinge	modi-fier of move-ment	move-ment	hinge	the thing that moves	hinge	specifications of the thing that moves	2 5.71%
	the effective portion	*of*	*the cumula-tive net*	*change*	*in*	*the fair value*	*of*	*the hedging instruments used in cash flow hedges*	
8	amount of movement	hinge	movement		hinge	the thing that moves	hinge	reason of the movement	2 5.71%
	the cumulative amount	*of*	*change*		*in*	*fair value*	*attribu-table to*	*changes in credit risk*	

Pattern 1 (N=20, 57.14%) is the canonical local grammatical pattern of the phraseology due to its highest frequency. The 'movement' (n.), represented by *change* (51.43%), *a change* (2.86%), or *the change* (2.86%), is connected to 'the thing that moves' (n.) in the linguistic forms of *fair value* (51.43%) or *the fair value* (5.71%) by the 'hinge' (prep.) *in*. 'The thing that moves' (n.) is followed by 'hinge' (prep.) *of* + 'specifications of the thing that moves' (n.) in various linguistic forms including *investment properties* (34.29%), *available-for-sale financial assets* (8.57%), and *cash flow hedges* (5.71%), e.g. "Change in fair value of investment properties" (line 37), "Change in fair value of available-for-sale financial assets, net of taxation" (line 63), and "Change in fair value of cash flow hedges" (line 93). It can be represented as 'N in n' in Francis et al. (1998), with the 'N' labeled as 'movement' and the 'n' divided into 'the thing that moves + hinge + specifications of the thing that moves' to specify the meaning construal of movement.

The other seven patterns are the variants of the canonical local grammatical pattern with various degrees of turbulence.

Pattern 2 (N=3, 8.57%) has 'profit (n.) + hinge (prep.)' in the linguistic forms of *operating profit before* (5.71%) or *operating profit after* (2.86%) added to the canonical pattern, e.g. "Operating profit before change in fair value of investment properties" (line 64).

Pattern 3 (N=2, 5.71%) has 'modifier of the movement' (adj.) in the linguistic forms of *net* or *total* added to the canonical pattern, e.g. "Net change in fair value of other financial instruments designated at fair value" (line 15). Patterns 2 and 3 can be considered as expansions of the pattern 'N *in* n' by Francis et al. (1998).

In pattern 4 (N=2, 5.71%), 'hinge (prep.) + specifications of the thing that moves (n.)' is omitted from the canonical pattern, e.g. "Change in fair value" (line 88). It has its counterpart 'N *in* n' in Francis et al. (1998), with 'N' labeled as 'movement' and 'n' labeled as 'the thing that moves' in the current study.

In pattern 5 (N=2, 5.71%), 'hinge (prep.) + specifications of the thing that moves (n.)' is omitted from the canonical pattern and 'modifier of the movement' (adj.) in the linguistic forms of *the initial* or *the entire initial* is added, e.g. "the initial change in fair value indicated by the valuation model" (line 45). It can be understood as an expansion of the pattern 'N *in* n' in Francis et al. (1998), with the 'N' preceded by 'modifier of the movement' (adj).

Pattern 6 (N=2, 5.71%) has 'hinge (prep.) + specifications of the thing that moves (n.)' omitted and 'portion of the movement (num.) + hinge (prep.)' added to the beginning of the canonical pattern, e.g. "due to parallel movement of plus or minus 10 per cent of change in fair value to reasonably possible alternative assumptions" (line 34). This pattern can be interpreted as a combination of 'N *of* n' and 'N *in* n' in Francis et al. (1998). The 'N' in the pattern 'N *of* n' is categorised into the 'percentage' group, which "indicates a portion of a larger thing or group" (ibid.: 189). It is represented as 'portion of the movement' (n.) to highlight the relationship with movement.

Pattern 7 (N=2, 5.71%) has 'portion of the movement (n.) + hinge (prep.) + modifier of movement (adj.)' added to the canonical pattern, e.g. "The hedging reserve comprises the effective portion of the cumulative net change in the fair value of the hedging instruments used in cash flow hedges" (line 156). Similarly, it is another expansion of the pattern 'N *in* n' in Francis et al. (1998).

Pattern 8 (N=2, 5.71%) has the highest degree of turbulence, with 'hinge (prep.) + specifications of the thing that moves (n.)' omitted from the canonical pattern, 'amount of movement (n.) + hinge (prep.)' added to the beginning, and 'hinge (prep.) + reason of the movement (n.)' added to the end, e.g. "At 31 December 2009, the cumulative amount of change in fair value attributable to changes in credit risk was a gain of US$119 million" (line 97).

Two main configurations of the linguistic forms of *change/fair/value* are identified, as follows:

1) *change … fair value* (N=38, 95%)

a. *change in fair value* (N=32, 80%), e.g. "Change in fair value of investment properties" (line 37)

b. *change in the fair value* (N=5, 12.5%), e.g. "A change in the fair value of a financial asset which is classified as "available-for-sale" is recorded" (line 2)

c. *change of * * * fair value* (N=1, 2.5%), as in "the change of available-for-sale debt securities' fair value due to foreign exchange impact" (line 9).

2) *fair value change* (N=2, 5%), e.g. "Fair value change of investment properties net of related deferred tax" (line 33)

Configuration 1a *change in fair value* (80%) is the canonical configuration of *change/fair/value* due to its highest frequency. The other configurations are derived from it with *the* added (1b), *in* omitted and some words added (1c), or the sequence changed and *in* omitted (2).

Table 4.32b shows the relation between the eight local grammatical patterns of *change/fair/value* and the two configurations.

Table 4.32b Local grammatical patterns and configurations of *change/fair/value*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*change in fair value*	1a	18 51.43%	20 57.14%
	change in the fair value	1b	2 5.71%	
2	*change in fair value*	1a	3 8.57%	3 8.57%
3	*change in fair value*	1a	2 5.71%	2 5.71%
4	*change in fair value*	1a	1 2.86%	2 5.71%
	change in the fair value	1b	1 2.86%	
5	*change in fair value*	1a	2 5.71%	2 5.71%
6	*change in fair value*	1a	2 5.71%	2 5.71%
7	*change in the fair value*	1b	2 5.71%	2 5.71%
8	*change in fair value*	1a	2 5.71%	2 5.71%

Eighteen instances of pattern 1 (51.43%) are found in configuration 1a *change in fair value* and two instances (5.71%) are found in configuration 1b *change in fair value*, e.g. "Change in fair value of cash flow hedges" (line 93, configuration 1a), "A change in the fair value of a financial asset which is classified as "available-for-sale" is

recorded" (line 2, configuration 1b), with the only difference in whether *fair value* is preceded by the determiner *the*.

The instances in local grammatical patterns 2 (N=3, 8.57%), 3 (N=2, 5.71%), 5 (N=2, 5.71%), 6 (N=2, 5.71%), and 8 (N=2, 5.71%) are all in configuration 1a *change in fair value*, e.g. "Operating profit after change in fair value of investment properties" (line 14, pattern 2), "Net change in fair value of other financial instruments designated at fair value" (line 15, pattern 3), "the entire initial change in fair value indicated by the valuation model is recognised on one of the following bases" (line 46, pattern 5), "due to parallel movement of plus or minus 10 per cent of change in fair value to reasonably possible alternative assumptions" (line 35, pattern 6), "The cumulative amount of the change in fair value attributable to changes in credit risk was a gain of US$1,510 million" (line 99, pattern 8).

One of the two instances of pattern 4 is found in configuration 1a *change in fair value*, as in "Change in fair value" (line 88), and the other in configuration 1b *change in the fair value*, as in "The change in the fair value is recognised in the income statement" (line 26).

Both instances of pattern 7 (5.71%) are found in configuration 1b *change in the fair value*, e.g. "The hedging reserve comprises the effective portion of the cumulative net change in the fair value of the hedging instruments used in cash flow hedges" (line 156).

Table 4.32c below shows the mapping of the two main configurations of *changes/fair/value* onto the eight local grammatical patterns.

Table 4.32c Configurations and local grammatical patterns of *change/fair/value*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*change in fair value*	18 45%	pattern 1	32 80%
		3 7.5%	pattern 2	
		2 5%	pattern 3	
		2 5%	pattern 5	
		2 5%	pattern 6	
		2 5%	pattern 8	
		1 2.5%	pattern 4	
		2 5%	unclassified	
1b	*change in the fair value*	2 5%	pattern 1	5 12.5%
		2 5%	pattern 7	
		1 2.5%	pattern 4	
1c	*change of * * * fair value*	1 2.5%	unclassified	1 2.5%
2	*fair value change*	2 5%	unclassified	2 5%

Configuration 1a *change in fair value* is found in all the local grammatical patterns except for pattern 7, which is exclusive to configuration 1b *change in the fair value*, due to its predominant frequency (N=32, 80%). Configuration 1b *change in the fair value* is found in patterns 1 (5%), 7 (5%), and 4 (2.5%). Configurations 1c *change of * * * fair value* and 2 *fair value change* are not classified into grammatical patterns due to their unique grammatical features.

4.5.5.3 *Changes/equity/statement*

In the case of *changes/equity/statement*, 85 co-occurrences are found in 98 concordance lines and 73 co-selections in 73 concordance lines. Four local grammatical patterns are identified in 37 of the 40 lines analysed (92.5%) (Table 4.33a). A detailed description of the patterns and linguistic realizations is found in Appendix 33.

Table 4.33a Four local grammatical patterns of *changes/equity/statement* in the accounting discourse

				n	prep	n	prep	n	prep		n	
1				state-ment	hinge	move-ment	hinge				the thing that moves	31 83.78%
				conso-lidated state-ment	*of*	*chan-ges*	*in*				*equity*	
	n		v	prep	n	prep	n	prep		n		
	balances		refe-rence	hinge	state-ment	hinge	move-ment	hinge		the thing that moves		2 5.41%
2	*The reconciliation between the opening and closing balances of each component of the Group's consoli-dated equity*		*is set out*	*in*	*the con-soli-dated state-ment*	*of*	*chan-ges*	*in*		*equity*		
	adj		n	prep	n	v	prep	n				
	modifier of movement		move-ment	hinge	the thing that moves	refe-rence	hinge	statement				2 5.41%
3	*all non-owner*		*chan-ges*	*in*	*equi-ty*	*are present-ed*	*in*	*the consolidated statement of comprehensive income*				

	adj	n	prep	n	v	prep	n	n	prep	n	prep	n	
	modi-fier of move-ment	move-ment	hin-ge	the thing that moves	refe-rence	hinge	modi-fier of move-ment	move-ment	hin-ge	the thing that moves	hin-ge	state-ment	2 5.41%
4	*'non-owner*	*chan-ges*	*in*	*equity'*	*to be pre-*	*sepa-rately*	*owner*	*chan-ges*	*in*	*equi-ty*	*in*	*a state-ment of*	

					sented	from						compre-hensive income	

In local grammatical pattern 1 (N=31, 83.78%), which is the canonical local grammatical pattern of *changes/equity/statement*, the constituent words of the phraseology are co-selected with each other in noun groups, e.g. "Consolidated Statement of Changes in Equity" (line 1), while in the other three patterns, they are co-selected in clauses with 'reference' (v.) as compulsory semantic element, e.g. "whereas all non-owner changes in equity are presented in the consolidated statement of comprehensive income" (line 26).

Pattern 1 represents a type of financial statement in the accounting discourse concerned with *changes in equity* (81.08%) or *changes in shareholders' equity* (2.70%), e.g. "the consolidated statement of changes in equity" (line 46). It can be interpreted as a combination of the patterns 'N *of* n' and 'N *in* n' (Francis et al., 1998), with the first 'N' represented as 'statement' and the second 'N' represented as 'movement' in the current study.

Pattern 2 (N=2, 5.41%) has 'balances (n.) + reference (v.) + hinge (prep.)' added to the beginning of the canonical local grammatical pattern to refer the readers to *the consolidated statement of changes in equity* (5.41%) for the information of 'balances', e.g. "The reconciliation between the opening and closing balances of each component of the Group's consolidated equity is set out in the consolidated statement of changes in equity" (line 11).

In pattern 3 (N=2, 5.41%), the readers are referred to another statement entitled *the consolidated statement of comprehensive income* for the information of 'movement' (n.) *in equity*, e.g. "whereas all non-owner changes in equity are presented in the consolidated statement of comprehensive income" (line 26).

Two instances of 'movements' (n.) are included in pattern 4. They have the same 'hinge (prep.) + the thing that moves (n.)' represented by *in equity*, but are qualified by different 'modifiers of the movement', which are *non-owner* and *owner* respectively, as in "IAS 1 Amendment requires 'non-owner changes in equity' to be presented separately from owner changes in equity in a statement of comprehensive income" (line 21). Patterns 2, 3, and 4 do not have their counterparts in Francis et al. (1996; 1998) due to the difference in the scope of grammatical pattern presentation. The focus of Francis et al. (1996) is on the patterns of verbs and that of Francis et al. (1998) is on the patterns of nouns and adjectives. While in the current study, the focus may be a noun group or a clause, depending on the distribution of the constituent words of the phraseologies. In patterns 2, 3, and 4, the grammatical patterns being described are a combination of both: the word indicating 'movement' occurs in a noun group and the other co-selected words of the phraseology occur across the clause. The complexity of these patterns makes it difficult to find their counterparts in Francis et al. (1996; 1998).

Seven main configurations of the linguistic forms of *changes/equity/statement* have been identified, as follows:

1) *statement ... changes ... equity* (N=31, 77.5%)

a. *statement of changes in equity* (N=30, 75%), e.g. "consolidated statement of changes in equity" (line 40)

b. *statement of changes in * equity* (N=1, 2.5%), as in "the statement of changes in shareholders' equity" (line 94)

2) *changes ... equity ... statement* (N=2, 5%)

changes in equity are presented in the consolidated statement (N=2, 5%), e.g. "whereas all non-owner changes in equity are presented in the consolidated statement of comprehensive income" (line 26).

3) *equity ... statement ... changes ... equity* (N=2, 5%)

equity is set out in the consolidated statement of changes in equity (N=2, 5%), e.g. "The reconciliation between the opening and closing balances of each component of the Group's consolidated equity is set out in the consolidated statement of change in equity" (line 11)

4) *changes ... equity ... changes ... equity ... statement* (N=2, 5%)

changes in equity to be presented separately from owner changes in equity in a statement (N=2, 5%), e.g. "revised standard requires "non-owner changes in equity" to be presented separately from owner changes in equity in a statement of comprehensive income" (line 22)

5) *changes ... equity ... statement ... changes ... equity* (N=1, 2.5%)

changes in equity * * * * * * * * statement of changes in equity (N=1, 2.5%), "As a result, the Group presents all owner changes in equity separately from other comprehensive income in the consolidated statement of changes in equity" (line 3).

6) *statement ... changes ... equity ... statement* (N=1, 2.5%)

statement of changes in equity * * * statement (N=1, 2.5%), as in "the presentation of the "Consolidated Statement of changes in equity" as a financial statement" (line 49)

7) *statement ... changes ... equity .... changes ... equity* (N=1, 2.5%)

statement of changes in equity * * changes in equity (N=1, 2.5%), as in "As a result, the Group presents in the consolidated statement of changes in equity all owner changes in equity" (line 73)

Configuration 1a *statement of changes in equity* (N=30, 75%) is the canonical configuration of the phraseology. Configuration 1b *statement of changes in * equity* (N=1, 2.5%) has the lowest degree of turbulence with *shareholders'* inserted between *changes in* and *equity*. The other configurations have rather high degrees of turbulence when compared to the canonical configuration, and their frequencies are low with only one or two instances. The diversity in linguistic forms is due to the repeated use of the constituent words of the phraseology, some of which are distributed across the clause (configurations 2, 3, 4, 5, and 7) rather than within the noun group (configurations 1 and 6), and the change of word sequence.

The four local grammatical patterns of *changes/equity/statement* are mapped onto the seven configurations (Table 4.33b).

Table 4.33b Local grammatical patterns and configurations of *changes/equity/statement*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*statement of changes in equity*	1a	30 81.08%	31 83.78%
	*statement of changes in * equity*	1b	1 2.70%	
2	*equity is set out in the consolidated statement of changes in equity*	3	2 5.41%	2 5.41%
3	*changes in equity are presented in the consolidated statement*	2	2 5.41%	2 5.41%
4	*changes in equity to be presented separately from owner changes in equity in a statement*	4	2 5.41%	2 5.41%

Local grammatical pattern 1 is found in configurations 1a (N=30, 81.08%) and 1b (N=1, 2.70%), e.g. "the consolidated statement of changes in equity" (line 44, configuration 1a) and "the statement of changes in shareholders' equity" (line 94, configuration 1b). Patterns 2, 3, and 4 have their unique configurations, e.g. "The reconciliation between the opening and closing balances of each component of the Group's consolidated equity is set out in the consolidated statement of change in

equity" (line 11, pattern 2 in configuration 3), "whereas all non-owner changes in equity are presented in the consolidated statement of comprehensive income" (line 26, pattern 3 in configuration 2), and "revised standard requires "non-owner changes in equity" to be presented separately from owner changes in equity in a statement of comprehensive income" (line 22, pattern 4 in configuration 4).

The seven main configurations of *changes/equity/statement* are then mapped onto the four local grammatical patterns (Table 4.33c).

Table 4.33c Configurations and local grammatical patterns of *changes/equity/statement*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*statement of changes in equity*	30 75%	pattern 1	30 75%
1b	*statement of changes in * equity*	1 2.5%	pattern 1	1 2.5%
2	*changes in equity are presented in the consolidated statement*	2 5%	pattern 3	2 5%
3	*equity is set out in the consolidated statement of changes in equity*	2 5%	pattern 2	2 5%
4	*changes in equity to be presented separately from owner changes in equity in a statement*	2 5%	pattern 4	2 5%
5	*changes in equity * * * * * * * * statement of changes in equity*	1 2.5%	unclassified	1 2.5%
6	*statement of changes in equity * * * statement*	1 2.5%	unclassified	1 2.5%
7	*statement of changes in equity * * changes in equity*	1 2.5%	unclassified	1 2.5%

Each of configurations 1a, 1b, 2, 3, and 4 is found in only one local grammatical pattern. Configurations 1a and 1b share pattern 1, and the other three configurations have their unique local grammatical patterns. Configurations 5, 6, and 7 are not classified into local grammatical patterns due to their unique grammatical features.

4.5.5.4 *Changes/income/statement*

In the case of *changes/income/statement*, 136 co-occurrences are found in 134 concordance lines and 63 co-selections in 63 concordance lines. Eight local grammatical patterns are identified in 33 of the 40 lines analysed (82.5%) (Table 4.34a). A detailed description of the patterns and linguistic realizations is found in Appendix 34.

Table 4.34a Eight local grammatical patterns of *changes/income/statement* in the accounting discourse

1			n	prep	n			v (passive)	prep	n			16 48.48%
			movement	hinge	the thing that moves			reference	hinge	statement			
			changes	*in*	*fair value*			*are included*	*in*	*income statement*			
2			n	prep	n	prep	n	v (passive)	prep	n			3 9.09%
			movement	hinge	the thing that moves	hinge	specifications of the thing that moves	reference	hinge	statement			
			changes	*in*	*fair values*	*of*	*investment properties*	*are recorded*	*in*	*the income statement*			
3	n		prep	n	prep	n		v (passive)	prep	n			3 9.09%
	influence of the movement		hinge	movement	hinge	the thing that moves		reference	hinge	statement			
	any gains and losses		*from*	*changes*	*in*	*fair value*		*are recognised*	*in*	*the income statement*			
4	adj	n	prep	n	v (passive)	prep	n	n	prep	n	prep	n	3 9.09%
	modifier of movement	movement	hinge	the thing that moves	reference	hinge	modifier of movement	movement	hinge	the thing that moves	hinge	statement	
	'non-owner	*changes*	*in*	*equity'*	*to be present-*	*separately from*	*owner*	*changes*	*in*	*equity*	*in*	*a statement of*	

				ed					compre-hensive income	
5		n			v (passive)	prep	n			2
		movement			reference	hinge	statement			6.06%
		changes			*recognised*	*in*	*the income statement*			
6		n	n		v (passive)	prep	n			2
		the thing that moves	move-ment		reference	hinge	statement			6.06%
		fair value	*chan-ges*		*are reported*	*in*	*"Net trading gains' in the income statement*			
7		adj	n	prep	n	v (passive)	prep	n		2
		modifier of movement	move-ment	hinge	the thing that moves	reference	hinge	statement		6.06%
		subsequent	*chan-ges*	*in*	*fair value included in "Net trading gains"*	*are recognised*	*in*	*the income statement*		
8		n	n			v (passive)	prep	n		2
		the thing that moves	move-ment			transference	hinge	statement		6.06%
		fair value	*chan-ges*			*transfer-red*	*from (to)*	*income statement*		

The phraseology in the first seven local grammatical patterns occurs in clauses, with 'reference' (v.) as compulsory semantic element, e.g. "Changes in fair value are recorded in the statement of comprehensive income" (line 4). Similar to the local grammatical patterns 2, 3, and 4 of *changes/equity/statement* in section 4.4.3.3, no counterparts of the seven local grammatical patterns are found in Francis et al. (1996; 1998) due to their complexity. In pattern 8, it occurs in a noun group, e.g. "fair value changes transferred from (to) income statement" (line 83). It also does not have any counterparts in Francis et al. (1996; 1998) since the words in the 'increase' and 'decrease' group and in the 'change' group are not observed to be preceded by another noun.

Pattern 1 (N=16, 48.48%) is the canonical local grammatical pattern. The 'movement' (n.), represented by *changes* (39.39%), *any changes* (6.06%) or *the changes* (3.03%), is connected to 'the thing that moves' (n.) by the 'hinge' (prep.) *in*. These three semantic elements form a noun group, which is followed by 'reference (v. passive) + hinge (prep.) + statement (n.)', e.g. "Changes in fair value are included in income statement" (line 89).

Based on the canonical pattern, pattern 2 (N=3, 9.09%) has 'hinge (prep.) + specifications of the thing that moves (n.)' added after 'the thing that moves' (n.), e.g. "Changes in fair values of investment properties are recorded in the income statement" (line 116).

Pattern 3 (N=3, 9.09%) has 'influence of the movement (n.) + hinge (prep.)' added to the beginning of the canonical pattern, e.g. "any gains or losses from changes in fair value are recognised in the statement of comprehensive income" (line 3).

Pattern 4 (N=3, 9.09%) has a high degree of turbulence from the canonical pattern by having two instances of 'movements' (n.) involved, e.g. "requiring 'non-owner changes in equity' to be presented separately from owner changes in equity in a statement of comprehensive income" (line 5).

In pattern 5 (N=2, 6.06%), 'hinge (prep.) + the thing that moves (n.)' is not found, e.g. "with changes recognised in the income statement" (line 82).

Pattern 6 (N=2, 6.06%) has a different sequence of 'movement' (n.) and 'the thing that moves' (n.) from the canonical pattern, e.g. "with fair value changes recognised in the income statement" (line 18).

In pattern 7 (N=2, 6.06%) has 'modifier of the movement' (adj.) added to the beginning of the canonical pattern, e.g. "whereas all non-owner changes in equity are presented in the consolidated statement of comprehensive income" (line 131).

Pattern 8 (N=2, 6.06%) has a high degree of turbulence from the canonical pattern, with the sequence of 'movement' (n.) and 'the thing that moves' (n.) changed and 'reference' (v. passive) replaced by 'transference' (v. passive), e.g. "fair value changes transferred from (to) income statement" (line 83).

Eight main configurations of the linguistic forms of *changes/income/statement* are identified, as follows:

1) *changes ... income statement* (N=28, 70%)

a. *changes in * * * * * the income statement* (N=7, 17.5%), e.g. "The derivative component is subsequently carried at fair value and changes in fair value are recognised in the income statement" (line 101).

b. *changes in fair value * * * income statement* (N=5, 12.5%), e.g. "For investments held for trading, changes in fair value are included in income statement" (line 87).

c. *changes * * * income statement* (N=4, 10%), e.g. "with fair value changes recognised in the income statement" (line 18)

d. *changes * * * * * * * * income statement* (N=4, 10%), e.g. "therefore fair value changes are reported in "Net trading gains" in the income statement" (line 110)

e. *changes in * * * * * * * in the income statement* (N=3, 7.5%), e.g. "The gain or loss relating to the effective portion of changes in the fair value of derivatives is recognised in the income statement within "interest expense"" (line 113)

f. *changes in * * * * * * * * * the income statement* (N=2, 5%), e.g. "Any changes in the liability relating to financial guarantees are taken to the income statement" (line 122).

g. *changes * * * * * * * * * income statement* (N=1, 2.5%), as in "changes in their fair value are recognised immediately in the income statement" (line 30)

h. *changes * * * * * * * * * * * * income statement* (N=1, 2.5%), as in "subsequent changes in fair value included in "Net trading gains" are recognised in the income statement" (line 124).

i. *changes * * * * * * * * * * * * * income statement* (N=1, 2.5%), as in "changes in the estimates which affect the value of PVIF are reflected in the income statement" (line 123).

2) *changes ... statement ... income* (N=4, 10%)

*changes * * * * * * * statement of comprehensive income* (N=4, 10%), as in "with all changes included in administrative expenses in the consolidated statement of comprehensive income" (line 1)

3) *changes ... changes ... statement ... income* (N=3, 7.5%)

non-owner changes in equity to be presented separately from owner changes in equity in a statement of comprehensive income (N=3, 7.5%), e.g. "IAS 1 Amendment requires 'non-owner changes in equity' to be presented separately from owner change in equity in a statement of comprehensive income" (line 6)

4) *changes ... income ... statement ... changes* (N=1, 2.5%)

*changes * * * * * * income * * * statement * changes* (N=1, 2.5%), as in "As a result, the Group presents all owner changes in equity separately from other comprehensive income in the consolidated statement of changes in equity" (line 77).

5) *changes ... changes ... income statement* (N=1, 2.5%)

*changes * * * * * * * * * * * changes * * * * * * * * * * * * * * income statement* (N=1, 2.5%), as in "Changes in the fair value of foreign currency fair value hedges and changes in the fair value of the hedged items effectively balance out with each other in income statement" (line 128).

6) *changes ... income statement ... income* (N=1, 2.5%)

*changes * * * * * income statement * * income* (N=1, 2.5%), as in "gains and losses from changes therein are recognised in the income statement in Net income from financial instruments" (line 14).

7) *statement ... changes ... statement ... income* (N=1, 2.5%)

*statement * changes * * * * * statement * * income* (N=1, 2.5%), as in "does not result in any change in the statement of changes in shareholders' equity and the statement of comprehensive income of the Group" (line 133)

8) *income ... statement ... changes* (N=1, 2.5%)

*income * * * * * * statement * changes* (N=1, 2.5%), as in "presented separately from all other income and expenses in a revised consolidated statement of changes in equity" (line 35).

The eight local grammatical patterns of *changes/income/statement* are mapped onto the eight configurations (Table 4.34b).

Table 4.34b Local grammatical patterns and configurations of *changes/income/statement*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*changes in * * * * * the income statement*	1a	5 15.15%	16 48.48%
	*changes in fair value * * * income statement*	1b	5 15.15%	
	*changes * * * * * * * * income statement*	1d	2 6.06%	
	*changes in * * * * * * * * * the income statement*	1f	1 3.03%	
	*changes * * * * * * * * * income statement*	1g	1 3.03%	
	*changes * * * * * * * * * * * * income statement*	1i	1 3.03%	
	*changes * * * * * * * statement of comprehensive income*	2	1 3.03%	
2	*changes in * * * * * * * in the income statement*	1e	2 6.06%	3 9.09%
	*changes in * * * * * * * * * the income statement*	1f	1 3.03%	
3	*changes in * * * * * the income statement*	1a	2 6.06%	3 9.09%
	*changes * * * * * * * statement of comprehensive income*	2	1 3.03%	
4	*non-owner changes in equity to be presented separately from owner changes in equity in a statement of comprehensive income*	3	3 9.09%	3 9.09%
5	*changes * * * income statement*	1c	1 3.03%	2 6.06%

	*changes * * * * * * statement of comprehensive income*	2	1 3.03%	
6	*changes * * * income statement*	1c	1 3.03%	2 6.06%
	*changes * * * * * * * * income statement*	1d	1 3.03%	
7	*changes * * * * * * * * * * * income statement*	1h	1 3.03%	2 6.06%
	*changes * * * * * * * statement of comprehensive income*	2	1 3.03%	
8	*changes * * * income statement*	1c	2 6.06%	2 6.06%

The 16 instances of pattern 1 (48.48%) are found in configurations 1a, 1b, 1d, 1f, 1g, 1i, and 2, with differences in the number of intervening words and as to whether the 'statement' (n.) is arranged in the sequence of *income statement* (45.45%) or *statement of comprehensive income* (3.03%), e.g. "changes in fair value are recognised in the income statement" (line 101), "Changes in fair values are recorded in the statement of comprehensive income" (line 4).

The 3 instances of pattern 2 (9.09%) are found in configurations 1e (6.06%) and 1f (3.03%), with a difference in the length of the 'specifications of the thing that moves' (n.), e.g. "Changes in fair values of investment properties are recorded in the income statement" (line 116, configuration 1e), "Changes in carrying amount of these insurance liabilities are recognised in the income statement" (line 125, configuration 1f).

Pattern 3 (N=3, 9.09%) is found in configurations 1a (6.06%) and 2 (3.03%), with a difference in the linguistic forms of 'statement' (n.), which are *the income statement* (6.06%) and *the statement of comprehensive income* (3.03%) respectively, e.g. "any gains and losses from changes in fair value are recognised in the income statement" (line 98, configuration 1a), "any gains or losses from changes in fair value are recognised in the statement of comprehensive income" (line 3, configuration 2).

Pattern 4 (N=3, 9.09%) is found in configuration 3, with two instances of 'movements' (n.) in the form of *changes* included, e.g. "requiring 'non-owner changes in equity' to be presented separately from owner changes in equity in a statement of comprehensive income" (line 5).

Pattern 5 (N=2, 6.06%) is found in configurations 1c and 2, with difference mainly in the expressions of 'statement' (n.), as in "with changes recognised in the income statement" (line 82, configuration 1c), "with all changes included in administrative expenses in the consolidated statement of comprehensive income" (line 1, configuration 2).

Pattern 6 (N=2, 6.06%) is found in configurations 1c and 1d, which share *fair value changes* to represent 'the thing that moves (n.) + movement (n.)', "with fair value changes recognised in the income statement" (line 18, configuration 1c), "therefore fair value changes are reported in "Net trading gains" in the income statement" (line 110, configuration 1d).

Pattern 7 (N=2, 6.06%) is found in configurations 1h and 2, with a major difference between the two instances in the expressions of 'statement', which are *the income statement* and *the consolidated statement of comprehensive income* respectively, as in "subsequent changes in fair value included in "Net trading gains" are recognised in the income statement" (line 124), "all non-owner changes in equity are presented in the consolidated statement of comprehensive income" (line 131).

Pattern 8 (N=2, 6.06%) is found in configuration 1c, e.g. "fair value changes transferred from (to) income statement" (line 83).

The eight main configurations of *changes/income/statement* are then mapped onto the eight local grammatical patterns (Table 4.34c).

Table 4.34c Configurations and local grammatical patterns of *changes/income/statement*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*changes in * * * * * the income statement*	5 12.5%	pattern 1	7 17.5 %
		2 5%	pattern 3	
1b	*changes in fair value * * * income statement*	5 12.5%	pattern 1	5 12.5 %
1c	*changes * * * income statement*	2 5%	pattern 8	4 10%
		1 2.5%	pattern 5	
		1 2.5%	pattern 6	
1d	*changes * * * * * * * * income statement*	2 5%	pattern 1	4 10%
		1 2.5%	pattern 6	
		1 2.5%	unclassified	
1e	*changes in * * * * * * * in the income statement*	2 5%	pattern 2	3 7.5%
		1 2.5%	unclassified	
1f	*changes in * * * * * * * * * the income statement*	1 2.5%	pattern 1	2 5%
		1 2.5%	pattern 2	
1g	*changes * * * * * * * * * income statement*	1 2.5%	pattern 1	1 2.5%
1h	*changes * * * * * * * * * * * income statement*	1 2.5%	pattern 7	1 2.5%
1i	*changes * * * * * * * * * * * * income statement*	1 2.5%	pattern 1	1 2.5%
2	*changes * * * * * * * statement of comprehensive income*	1 2.5%	pattern 1	4 10%
		1 2.5%	pattern 3	
		1 2.5%	pattern 5	
		1 2.5%	pattern 7	
3	*non-owner changes in equity to be presented separately from*	3 7.5%	pattern 4	3 7.5%

	owner changes in equity in a statement of comprehensive income			
4	changes * * * * * * income * * * statement * changes	1 2.5%	unclassified	1 2.5%
5	changes * * * * * * * * * * changes * * * * * * * * * * * * * income statement	1 2.5%	unclassified	1 2.5%
6	changes * * * * * income statement * * income	1 2.5%	unclassified	1 2.5%
7	statement * changes * * * * * statement * * income	1 2.5%	unclassified	1 2.5%
8	income * * * * * * statement * changes	1 2.5%	unclassified	1 2.5%

Configuration 1a is found in patterns 1 (N=5, 12.5%) and 3 (N=2, 5%). All the 7 instances have *fair value* (10%), *the fair value* (5%), or *fair values* (2.5%) as 'the thing that moves' (n.), which is not further illustrated by 'specifications of the thing that moves' (n.). A major difference between the instances in the two local grammatical patterns lies in whether the 'movement' (n.) *changes* is preceded by 'influence of the movement (n.) + hinge (prep.)' in the linguistic form of *any gains and losses from* (pattern 3), e.g. "changes in fair value are recognised in the income statement" (line 101, pattern 1), "any gains and losses from changes in fair value are recognised in the income statement" (line 97, pattern 3).

Configuration 1b (N=5, 12.5%) is found in pattern 1, with 'the thing that moves' (n.) represented by *fair value*, the 'reference' (v. passive) by *are included* (5%), *recognised* (5%), or *recorded* (2.5%), and the 'statement' by *the income statement* (7.5%) or *income statement* (5%), e.g. "changes in fair value are included in income statement" (line 87), "with changes in fair value recognised in the income statement" (line 95).

Configuration 1c (N=4, 10%) is found in patterns 8 (5%), 5 (2.5%), and 6 (2.5%), with the three words between *changes* and *income statement* being *transferred from (to)* (2 instances in pattern 8) or *recognised in the* (2 instances in patterns 5 and 6), e.g. "fair value changes transferred from (to) income statement" (line 83, pattern 8), "with

changes recognised in the income statement" (line 82, pattern 5), and "with fair value changes recognised in the income statement" (line 18, pattern 6).

Three instances of configuration 1d (N=4, 10%) are found in patterns 1 (5%) and 6 (2.5%), e.g. "Changes in the fair value are included in the income statement" (line 107) and "therefore fair value changes are reported in "Net trading gains" in the income statement" (line 110). Line 111 in configuration 1d is not classified into local grammatical patterns due to its unique grammatical features, as in "Changes in their fair value directly impact the Group's income statement".

Configuration 1e (N=3, 7.5%) is found in pattern 2 (5%). The two instances have the same words between *changes* and *income statement*, e.g. "Changes in fair values of investment properties are recorded in the income statement" (line 116). Line 113 is not classified into local grammatical patterns, as in "The gains or loss relating to the effective portion of changes in the fair value of derivatives is recognised in the income statement within "interest expense"", with *the effective portion* representing the unique semantic element 'portion'.

Configuration 1f (N=2, 5%) is found in patterns 1 and 2, as in "Any changes in the liability relating to financial guarantees are taken to the income statement" (line 122, pattern 1) and "Changes in carrying amount of these insurance liabilities are recognised in the income statement" (line 125, pattern 2).

Configurations 1g (N=1, 2.5%) and 1i (N=1, 2.5%) are both found in pattern 1, with the words between *changes* and *the income statement* representing 'hinge (prep.) + the thing that moves (n.) + reference (v. passive) + hinge (prep.)', as in "changes in their fair value are recognised immediately in the income statement" (line 30, configuration 1g) and "changes in the estimates which affect the value of PVIF are reflected in the income statement" (line 123, configuration 1i).

Configuration 1h (N=1, 2.5%) is found in pattern 7, as in "subsequent changes in fair value included in "Net trading gains" are recognised in the income statement" (line 124).

Configuration 2 (N=4, 10%) is found in patterns 1, 3, 5, and 7, the semantic element 'statement' of which is represented by *the statement of comprehensive income* (5%) or *the consolidated statement of comprehensive income* (5%), with *income* preceded by *statement*.

Configurations 4 to 8 (1 instance in each configuration) are not classified into local grammatical patterns due to their unique grammatical features.

The configurations of *changes/income/statement* are diversified, since 92.5% of its occurrences are in clauses, with *changes* at the beginning and *income* and *statement* at the end. The length of the intervening words between them varies, e.g. "Changes in fair values are recorded in the statement of comprehensive income" (line 4) and "Changes in the estimates which affect the value of PVIF are reflected in the income statement" (line 123). In some cases, certain constituent word of the phraseology occurs twice, e.g. configuration 4 *changes * * * * * * income * * * statement * changes* with two occurrences of *changes* and configuration 6 *changes * * * * * income statement * * income* with two occurrences of *income*. In some instances, the positions of the constituent words are changed, such as *changes ... income statement* in configuration 1 and *changes ... statement ... income* in configuration 2.

4.5.5.5 *Changes/interest/rates*

In the case of *changes/interest/rates*, 44 co-occurrences are found in 40 concordance lines and 28 co-selections in 28 concordance lines, with three local grammatical patterns identified in 24 of the 28 lines analysed (85.71%) (Table 4.35a). A detailed description of the patterns and linguistic realizations is found in Appendix 35.

Table 4.35a Three local grammatical patterns of *changes/interest/rates* in the accounting discourse

		n	prep	n			18 75%
1		movement	hinge	the thing that moves			
		changes	*in*	*market interest rates*			
2	adj	n	prep	n			3 12.5 %
	modifier of movement	movement	hinge	the thing that moves			
	stressful	*changes*	*in*	*market interest rates*			
3		n	prep	n	v	n	3 12.5 %
		movement	hinge	the thing that moves	influence	the thing being influenced	
		changes	*in*	*market interest rates*	*affect*	*the interest income or expense of floating rate financial instruments*	

Local grammatical pattern 1 *movement* (n.) + *hinge* (prep.) + *the thing that moves* (n.) is the canonical local grammatical pattern (N=18, 75%). The 'movement' (n.) is always represented by *changes* and the 'hinge' (prep.) by *in*. 'The thing that moves' is represented by various noun groups containing *interest rates*, such as *market interest rates* (41.67%), *interest rates* (12.5%), and *interest rates, exchange rates or equity prices* (8.33%), e.g. "the value of a financial instrument will fluctuate due to changes in market interest rates" (line 16), "exposure to changes in interest rates" (line 15), and "changes in interest rates, exchange rates or equity prices" (line 27).

Pattern 1 is the basis for the other two local grammatical patterns, which are derived from it with 'modifier of movement' (adj.) added to the beginning (pattern 2) or with 'influence (v.) + the thing being influenced (n.)' added to the end (pattern 3), e.g. "The projections illustrate that stressful changes in market interest rates in response to exceptional but plausible events would have adverse effects" (line 33, pattern 2) and "Changes in market interest rates affect the interest income or expense of floating rate financial instruments" (line 30).

Patterns 1 and 2 are noun groups long enough to contain all the constituent words of *changes/interest/rates*, e.g. "will fluctuate because of changes in market interest rates" (line 14, pattern 1) and "benefit from expected changes in currency rates, interest rates, equity prices or other market parameters" (line 2, pattern 2). Pattern 1 is very similar to the pattern 'N *in* n' in Francis et al. (1998), with 'N' represented as 'movement' and 'n' represented as 'the thing that moves' in the current study. Pattern 2 can be interpreted as an expansion of the pattern 'N *in* n' by adding 'adj' represented as 'modifier of movement' to the beginning of the pattern.

The instances in pattern 3 occur in clauses, since *interest* occurs twice, with the second occurring beyond the noun group, e.g. "Changes in market interest rates only affect interest income or expense in relation to fixed rate financial instruments" (line 6).

Five main configurations of the linguistic forms of *changes/interest/rates* are identified, as below:

1) *changes ... interest rates* (N=17, 60.71%)

a. *changes in market interest rates* (N=11, 39.29%), e.g. "changes in market interest rates will impact cash flows arising from variable rate financial instruments" (line 20)

b. *changes in interest rates* (N=3, 10.71%), e.g. "to receive or pay a net amount based on changes in interest rates" (line 17)

c. *changes in * * * interest rates* (N=2, 7.14%), e.g. "Changes in the level of interest rates can have a significant impact on the Group's overall investment" (line 38)

d. *changes in * * * * interest rates* (N=1, 3.57%), as in "to reflect changes in, for example, tax or interest rates" (line 39)

2) *changes ... interest rates ... interest* (N=4, 14.29%)

a. *changes in market interest rates * * interest* (N=3, 10.71%), e.g. "Changes in market interest rates affect the interest income or expense of the floating rate financial instruments" (line 30)

b. *changes in interest rates on * * interest* (N=1, 3.57%), as in "The Bank uses sensitivity analysis to measure the potential effect of changes in interest rates on our net interest income and economic value change" (line 19)

3) *changes ... rates ... interest rates* (N=3, 10.71%)

a. *changes in * rates, interest rates* (N=2, 7.14%), e.g. "to benefit from expected changes in exchange rates, interest rates, equity prices or other market parameters" (line 3)

b. *changes in * rates or interest rates* (N=1, 3.57%), as in "to receive or pay a net amount based on changes in currency rates or interest rates" (line 18)

4) *changes ... interest rates ... rates* (N=2, 7.14%)

changes in interest rates, exchange rates (N=2, 7.14%), e.g. "which may be sold in response to needs for liquidity or changes in interest rates, exchange rates or equity prices" (line 27)

5) *interest ... changes ... interest rates* (N=2, 7.14%)

a. *interest * * * * * * * * * * * * changes in interest rates* (N=1, 3.57%), as in "the interest rate sensitivity analysis does not take into account of the impact of changes in interest rates would have on the relative strengthening and weakening of the currency" (line 21)

b. *interest * * * changes in interest rates* (N=1, 3.57%), as in "It can be seen from the above that projecting the movement in net interest income from prospective changes in interest rates is a complex interaction of structural and managed exposures" (line 23)

Configuration 1a *changes in market interest rates* is the canonical pattern of the phraseology due to its highest frequency (N=11, 39.29%). The other configurations are considered its variants with *market* omitted (1b), some words added (2a), *market* omitted and some words added (1c, 1d, 2b, 3a, 3b, 4, 5a, and 5b).

The three local grammatical patterns of *changes/interest/rates* are mapped onto the eleven configurations (Table 4.35b)

Table 4.35b Local grammatical patterns and configurations of *changes/interest/rates*

Local grammatical pattern	Configuration	Conf number	Freq	Total freq
1	*changes in market interest rates*	1a	10 41.67%	18 75%
	changes in interest rates	1b	3 12.5%	
	*changes in * * * interest rates*	1c	2 8.33%	
	changes in interest rates, exchange rates	4	2 8.33%	
	*changes in * rates or interest rates*	3b	1 4.17%	
2	*changes in * rates, interest rates*	3a	2 8.33%	3 12.5%
	changes in market interest rates	1a	1 4.17%	
3	*changes in market interest rates * * interest*	2a	3 12.5%	3 12.5%

Local grammatical pattern 1 (N=18, 75%) is found in five configurations 1a, 1b, 1c, 4, and 3b, with the only difference in the linguistic forms of 'the things that move' (n.), which include *market interest rates* (10 instances in configuration 1a, 41.67%),

interest rates (3 instances in configuration 1b, 12.5%), and *interest rates, exchange rates or equity prices* (2 instances in configuration 4, 8.33%), e.g. "changes in market interest rates only affect Profit for the year or total equity" (line 13, configuration 1a), "with a focus on reducing the Group's overall cost of debt and exposure to changes in interest rates" (line 15, configuration 1b), and "which may be sold in response to needs for liquidity or changes in interest rates, exchange rates or equity prices" (line 27, configuration 4).

Pattern 2 (N=3, 10.71%) is found in configurations 3a (7.14%) and 1a (3.57%), with a difference in the linguistic forms of 'the thing that moves' (n.), which are *currency rates, interest rates, equity prices or other market parameters* (1 instance in configuration 3a), *exchange rates, interest rates, equity prices or other market parameters* (1 instance in configuration 3a), or *market interest rates* (1 instance in configuration 1a) respectively. It is different from pattern 1 by having a 'modifier' (adj.) added to the 'movement' (n.), e.g. "benefit from expected changes in currency rates, interest rates, equity prices or other market parameters" (line 2) and "stressful changes in market interest rates" (line 33).

Pattern 3 (N=3, 10.71%) is found in configuration 2a, with the first occurrence of *interest* as part of 'the thing that moves' (n.) and the second occurrence as part of 'the thing being influenced' (n.), e.g. "Changes in market interest income affect the interest income or expense of floating rate financial instruments" (line 30).

The eleven configurations of *changes/interest/rates* are then mapped onto the three local grammatical patterns (Table 4.35c).

Table 4.35c Configurations and local grammatical patterns of *changes/interest/rates*

Conf no.	Configuration	Freq	Pattern	Total freq
1a	*changes in market interest rates*	10 35.71%	pattern 1	11 39.29%
		1 3.57%	pattern 2	
1b	*changes in interest rates*	3 10.71%	pattern 1	3 10.71%
1c	*changes in * * * interest rates*	2 7.14%	pattern 1	2 7.14%
1d	*changes in * * * * interest rates*	1 3.57%	unclassified	1 3.57%
2a	*changes in market interest rates * * interest*	3 10.71%	pattern 3	3 10.71%
2b	*changes in interest rates on * * interest*	1 3.57%	unclassified	1 3.57%
3a	*changes in * rates, interest rates*	2 7.14%	pattern 2	2 7.14%
3b	*changes in * rates or interest rates*	1 3.57%	pattern 1	1 3.57%
4	*changes in interest rates, exchange rates*	2 7.14%	pattern 1	2 7.14%
5a	*interest * * * * * * * * * * * changes in interest rates*	1 3.57%	unclassified	1 3.57%
5b	*interest * * * changes in interest rates*	1 3.57%	unclassified	1 3.57%

Configuration 1a *changes in market interest rates* is found in patterns 1 (N=10, 35.71%) and 2 (N=1, 3.57%), which share the words representing 'movement (n.) + hinge (prep.) + the thing that moves (n.)', with the only difference as to whether the 'movement' (n.) is qualified by a 'modifier' (adj.) (pattern 2), e.g. "changes in market interest rates" (line 14, pattern 1) and "stressful changes in market interest rates" (line 33).

Each of the other configurations is only found in one local grammatical pattern, except for those not classified due to their unique grammatical features.

4.5.6 Local Grammar of unspecified movement in the accounting discourse

The five most frequent phraseologies conveying the meaning of unspecified movement in the discourse of accounting are *changes/fair/value*, *change/fair/value*, *changes/equity/statement*, *changes/income/statement*, and *changes/interest/rates*. Altogether, twenty-three local grammatical patterns are observed across the five phraseologies (Appendix 4.42A).

Pattern 1 *movement* (n.) + *hinge* (prep.) + *the thing that moves* (n.) + *hinge* (prep.) + *specifications of the thing that moves* (n.) is the canonical local grammatical pattern of the phraseologies of unspecified movement in the accounting discourse due to its highest frequency (N=36, 22.09%). The other twenty-two patterns are variants of the canonical pattern with some semantic elements added (patterns 9, 10, 11, 14, 17, 18) or deleted (pattern 3), some semantic elements added and some others deleted (patterns 2, 4, 5, 6, 7, 8, 12, 13, 15, 16, 20, 23), the sequence changed and some semantic elements deleted (pattern 19), and the sequence changed, and some semantic elements added and some others deleted (patterns 21, 22). Similar to the phraseologies of unspecified movement in the discourse of economics, the change in the sequence of 'movement' and 'the thing that moves' is not due to the difference in the parts of speech of the words indicating movement, which are nouns in all the instances. It can be interpreted as a unique feature of unspecified movement.

Five local grammatical patterns (N=78, 47.85%) are shared by two to three phraseologies. The relationship between semantic pattern and phraseology is shown in Table 4.42B.

Table 4.42A Distribution of each local grammatical pattern across phraseologies of unspecified movement in the accounting discourse

	changes/fair /value (N=44:246)	*change/fair/ value* (N=40:98)	*changes/equity/ statement* (N=40:73)	*changes/income /statement* (N=40:63)	*changes/ interest/ rates* (N=28)

pattern 1 (N=36, 22.09%)	√	√			
pattern 2 (N=31, 19.02%)			√		
pattern 3 (N=28, 17.18%)	√	√			√
pattern 4 (N=16, 9.82%)				√	
pattern 5 (N=5, 3.07%)		√			√
pattern 6 (N=5, 3.07%)			√	√	
pattern 7 (N=4, 2.45%)			√	√	
pattern 8 (N=3, 1.84%)	√				
pattern 9 (N=3, 1.84%)		√			
pattern 10 (N=3, 1.84%)	√				
pattern 11 (N=3, 1.84%)				√	
pattern 12 (N=3, 1.84%)				√	
pattern 13 (N=3, 1.84%)					√
pattern 14 (N=2, 1.23%)		√			
pattern 15 (N=2, 1.23%)		√			
pattern 16 (N=2, 1.23%)		√			
pattern 17 (N=2, 1.23%)		√			
pattern 18 (N=2, 1.23%)	√				
pattern 19 (N=2, 1.23%)	√				
pattern 20 (N=2, 1.23%)				√	
pattern 21 (N=2, 1.23%)				√	
pattern 22 (N=2, 1.23%)				√	
pattern 23 (N=2, 1.23%)			√		

Pattern 3 '*movement* (n.) + *hinge* (prep.) + *the thing that moves* (n.)', the plainest of the 23 local grammatical patterns, is shared by three phraseologies, namely *changes/fair/value*, *change/fair/value*, and *changes/interest/rates*. Patterns 1, 5, 6, and 7 are shared by two phraseologies respectively.

It is interesting to find that *changes/fair/value* and *change/fair/value* share only two local grammatical patterns, despite the high similarity in their constituent words. Other phraseologies sharing two patterns are *changes/equity/statement* vs. *changes/income/statement* and *change/fair/value* vs. *changes/interest/rates*.

The analysis indicates that some patterns are similar in the constitution, sequence and structure. After the combination of the similar patterns, the occurrences of the phraseologies indicating unspecified movement in the accounting discourse can be grouped into five Local Grammatical Patterns (Appendix 4.42C).

The original local grammatical patterns 1, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 18 are combined into Local Grammatical Pattern 1 (N=117, 71.78%). All the instances in Pattern 1 have the obligatory semantic elements of 'movement + hinge + the thing that moves'. Some instances also contain 'modifier of movement', 'specifications of the thing that moves', 'reference + hinge + statement' or 'influence + the thing that moves', and 'influence of movement', 'portion of movement', 'profit', or 'amount of movement', which are the optional in Pattern 1.

The original local grammatical patterns 2 and 23 are combined into Local Grammatical Pattern 2 (N=33, 20.25%), where 'statement + hinge + movement + hinge + the thing that moves' are obligatory semantic elements, and 'balances' and 'reference' are optional.

The original patterns 19, 21, and 22 are combined into Local Grammatical Pattern 3 (N=6, 3.68%), where 'movement' is always directly preceded by 'the thing that moves'. They are the obligatory semantic elements of Pattern 3. The optional semantic

elements are 'hinge', 'specifications of the thing that moves', 'reference' or 'transference', and 'statement'.

The original pattern 6 is not combined with others, since it has two 'movements', two 'modifiers of movement' and two 'the things that move'. It becomes Local Grammatical Pattern 4 (N=5, 3.07%).

The original pattern 20 becomes Local Grammatical Pattern 5 (N=2, 1.23%). It is different from the others by not containing 'the thing that moves' in the pattern.

The semantic elements of the phraseologies indicating unspecified movement in the accounting discourse are shown in Table 4.42D.

Table 4.42B Distribution of semantic elements across phraseologies of unspecified movement in the accounting discourse

		changes/fair/ value (N=44:246)	*change/fair/ value* (N=40:98)	*changes/equity /statement* (N=40:73)	*changes/income /statement* (N=40:63)	*changes/ interest/ rates* (N=28)
1	movement	√	√	√	√	√
2	hinge	√	√	√	√	√
3	the thing that moves	√	√	√	√	√
4	modifier of movement		√	√	√	√
5	specifica-tions of the thing that moves	√	√		√	
6	influence of movement	√			√	
7	statement			√	√	
8	reference			√	√	
9	portion of movement	√	√			
10	influence					√
11	the thing being influenced					√

12	profit		√			
13	amount of movement		√			
14	reason of movement		√			
15	transference				√	
16	balances			√		

'Movement', 'hinge' and 'the thing that moves' are the core semantic elements of the five phraseologies indicating unspecified movement in account discourse. 'Modifier of movement' is shared by four phraseologies, namely *change/fair/value*, *changes/equity/statement*, *changes/income/statement* and *changes/interest/rates*. 'Specifications of the thing that moves' is shared by three phraseologies, namely *changes/fair/value*, *change/fair/value* and *changes/income/statement*. 'Influence of movement' is shared by *changes/fair/value* and *changes/income/statement*. 'Statement' and 'reference' are both shared by *changes/equity/statement* and *changes/income/statement*. 'Portion of movement' is shared by *changes/fair/value* and *change/fair/value*.

Changes/equity/statement and *changes/income/statement* are the most similar pair with six common semantic elements, namely the three core semantic elements plus 'modifier of movement', 'statement' and 'reference'. *Changes/fair/value* and *change/fair/value* share five semantic elements, namely the three core semantic elements plus 'specifications of the thing that moves' and 'portion of movement'. *Changes/fair/value* and *changes/income/statement* also share five semantic elements, namely the three core semantic elements plus 'specifications of the thing that moves' and 'influence of movement'.

Change/fair/value has three unique semantic elements, which are 'profit', 'amount of movement', and 'reason of movement'. *Changes/interest/rates* has two unique semantic elements of 'influence' and 'the thing being influenced'. *Changes/equity/statement* and *changes/income/statement* have one unique semantic

element respectively, i.e. 'balances' in *changes/equity/statement* and 'transference' in *changes/income/statement*.

4.6 Summary

In conclusion, 27 phraseologies of movement are included in the analysis. They are phraseologies of upward movement in the public relations discourse, phraseologies of upward, downward, and unspecified movement in the discourses of economics and in the accounting discourse, and phraseologies of upward and unspecified movement in the corporate governance discourse. The local grammatical patterns and configurations of the 27 phraseologies are studied. It is observed that positional variation and constituent variation are pervasive in the phraseologies of movement in CARs. A rather close relationship is identified between local grammatical patterns and configurations, indicating that texts with similar linguistic realisations tend to have similar local grammatical patterns, and vice versa. But due to the complexity of language and grammatical patterns, the relationship is not one-to-one match. The four or five phraseologies studied in each movement type in each discourse have some local grammatical patterns and semantic elements in common on the one hand, and have their unique features on the other. These findings strongly suggest the co-selection of local grammatical patterns and semantic elements with phraseologies.

Based on the similarities and differences of the phraseologies, the local grammatical patterns are synthesized to generate Local Grammatical Patterns with obligatory and optional elements for each movement type in each discourse. The synthesis reveals that the language of each movement type in each discourse can be represented by no more than five Local Grammatical Patterns, indicating the possibility of local grammar to make a relatively thorough description of the language of movement in financial English.

Chapter 5 Comparative analysis

The 27 phraseologies in the three movement types, namely upward movement, downward movement, and unspecified movement, and four discourse types, namely public relations discourse, discourse of economics, corporate governance discourse, and accounting discourse, were compared in terms of local grammatical patterns, specifically shared and unique phraseologies and their local grammatical patterns. Since no phraseologies of movement are found in legal discourse, this discourse type was not included in the comparison. The different aspects of comparison were to address the third research question:

How are the local grammars of different types of movement similar to and different from each other across discourse types and across movement types in the corporate annual reports?

5.1 Comparison across discourse types

5.1.1. Comparison of upward movement across discourses

upward movement is the only movement type found in all the four discourses. In upward movement, two of the nine phraseologies (*increased/HK$#/million* and *increase/HK$#/million*) are shared by three discourses, one (*increase/per/cent*) shared by two discourses, and each of the others specific to one discourse type (Table 5.1).

Table 5. 1 Phraseologies of upward movement in four discourse types

	Three-word phraseologies	Freq. in public relations discourse	Freq. in discourse of economics	Freq. in corporate governance discourse	Freq. in the accounting discourse
1	*increased/HK$#/million*	29	104	0	10
2	*increase/HK$#/million*	13	65	0	14
3	*increase/per/cent*	12	54	0	0
4	*increased/per/cent*	0	91	0	0
5	*rose/per/cent*	0	85	0	0
6	*increase/fair/value*	0	0	0	40
7	*increase/cash/equivalents*	0	0	0	17
8	*development/business/group*	0	0	15	0
9	*development/Hong/Kong*	11	0	0	0
Total frequency		65	399	15	81
Frequency per 10,000 words		5.91	9.51	0.40	1.36

Another comparative finding is that public relations discourse and discourse of economics share the three most frequent phraseologies, namely *increased/HK$#/million*, *increase/HK$#/million*, and *increase/per/cent*. In addition, different discourses are characterised by unique phraseologies of upward movement. Public relations discourse has its unique phraseology *development/Hong/Kong*; discourse of economics *increased/per/cent* and *rose/per/cent*; accounting discourse *increase/fair/value* and *increase/cash/equivalents*; corporate governance discourse *business/development/group*.

The constituent words of the phraseologies in these discourses indicate that the discourse of economics puts the most emphasis on numerical information, since all the five most frequent phraseologies in the discourse of economics are concerned with numerical data in the form of *HK$# million* or *# per cent*. This phenomenon is called by Bhatia (2010: 41) as "recontextualization of the accounting information", by which the discourse of economics is closely connected to accounting discourse to give the readers "an unforgettable impression" that the discourse of economics is the interpretation of the accounting information.

Similarly, in the public relations discourse, three of the four phraseologies are associated with numerical data represented by *HK$# million* or *per cent*, e.g. "Underlying earnings per share were HK$4.84, an increase of one per cent from last year" (line 3 of *increase/per/cent* in public relations discourse). The use of numerical data "lend(s) marketing and public relations discourse the same factual reliability and hence credibility" and gives outsiders an impression that the public relations discourse may be "drawing its conclusions from the accounting numbers that are certified" (Bhatia, 2010: 43) by independent auditors. The other phraseology (*development/Hong/Kong*) is not quantified but expresses an abstract concept of upward movement, e.g. "contributed substantially to the economic and social development of Mainland China and Hong Kong" (line 21 of *development/Hong/Kong* in public relations discourse). It is a more direct way of establishing a positive corporate image.

Different from the phraseologies in the discourse of economics and public relations discourse, those in the accounting discourse are concerned less with the numerical data. This finding can be illustrated by the format of accounting discourse, which is composed of financial statements, independent auditor's report, and notes to the financial statements. The phraseologies of upward movement usually occur in financial statements, which are presented in tabular forms, and notes to the financial statements, which are presented in both texts and tabular forms. In the occurrences of upward phraseologies in tabular forms, the numerical data are presented in columns after the phraseologies, e.g. "Increase in fair value 3,857 134" (line 25 of *increase/fair/value* in the accounting discourse), with *increase in fair value*, *3,857*, and *134* occurring in three separate columns. In the occurrences in textual forms, the phraseologies are used to explain "how valuations were arrived at" (Thomsett, 2007: 21), e.g. "Any subsequent increase in the fair value of such assets is recognised directly in other comprehensive income" (line 47 of *increase/fair/value* in the accounting discourse), so that numerical data are usually not included.

The frequencies of upward phraseologies per 10,000 words in the discourse of economics (9.51) and public relations discourse (5.91) are much higher than those in the accounting discourse (1.36) and corporate governance discourse (0.40). The high frequency of the phraseologies of upward movement in the discourse of economics can be attributable to its communicative purpose "to discuss and interpret the financial statements" (Yuthas et al., 2002: 141). A rather large amount of phraseologies of movement can be expected in the discussion and interpretation of the statistics in the financial statements.

Regarding public relations discourse, whose major communicative purpose is to create a positive corporate image (see, for example, Anderson & Imperia, 1992; Kohut & Segars, 1992; Clatworthy & Jones, 2001; Stanko & Zeller, 2003; Merkl-Davies & Brennan, 2007; Mobasher et al., 2013), it is not surprising that only phraseologies of upward movement, which is considered to convey a positive meaning (Ahmad et al., 2005; Rutherford, 2005; Wang et al., 2012), was found in this discourse. It conforms to the Pollyanna effect (Hildebrandt & Snyder, 1981; Abrahamson & Park, 1994; Clatworthy & Jones, 2003; Rutherford, 2005; Wang et al., 2012), which exists "regardless of financial performance" (Henry, 2008: 368), or in other words, no matter whether the performance of the corporation is satisfactory. As stated by Thomsett (2007: 19), "even when the operations were dismal, you are rarely going to find a frank discussion here", since public relations discourse serves primarily a promotional purpose.

Concerning the accounting discourse, whose communicative purpose is to "report accurately and factually on the basis of financial evidence of past corporate performance" (Bhatia, 2010: 42), one may expect that the phraseologies of movement may occur frequently. However, it is not the case in the phraseologies of upward movement (1.36 times per 10,000 words) and downward movement (1.08 times per 10,000 words). It is because the movements are usually manifested by presenting the statistics of the current year, the last year, and sometimes the year before the last in two or three columns in the section entitled financial statements, with the statistics

presented by "numbers in tabular forms and displays of various other kinds" (ibid.: 40). In a financial statement of an annual report in the corpus, giving only one example out of numerous similar occurrences, 'Net assets 320,944 292,131 349,828' is found in the tabular form, with '320,944' representing the net assets on 31 December 2009, '292,131' representing those on 31 December 2008, and '349,828' representing those on 1 January 2008. The upward movement compared to the last year and the downward movement compared to the year before the last are not specified by the use of phraseologies of movement, but can be calculated by the figures of the three years. This unique format of the accounting discourse in conveying the meaning of movement explains the infrequency of the phraseologies of upward movement and downward movement.

Corporate governance discourse, whose communicative purpose is to report on issues of corporate governance, such as company operation, internal governance practices, directors' securities transactions, board of directors, shareholders' rights, and significant changes in investor relations (Hyland, 1998; Appendix 14) so as to fulfill the requirements of Hong Kong Listing Rules, is of little concern with the economic performance of the corporation and therefore contains only one phraseology (*development/business/group*) indicating upward movement.

As discussed in Chapter 4, five Local Grammatical Patterns of the phraseologies indicating upward movement are identified in public relations discourse, four in the discourse of economics, and three in the accounting discourse and corporate governance discourse respectively.

Some Local Grammatical Patterns are found in more than one discourse type, with various degrees of variation. Pattern 1 (N=17, 43.59%) in public relations discourse, Pattern 1 (N=98, 58.33%) in the discourse of economics, and Pattern 2 (N=12, 19.35%) in the accounting discourse are similar in that they all have three obligatory semantic elements 'the thing that moves' (n.), 'movement' (v.), and 'amount of movement' (num.) in the same sequence. The 'hinge' (prep.) between 'the thing that moves' (n.)

and 'movement' (v.) is optional in the discourses of public relations and economics, and obligatory in the accounting discourse. 'Time of movement' (n.) and 'time after movement' (n.) are optional in the discourses of public relations and economics, but are not found in the accounting discourse. 'Amount after movement' (num.) is obligatory in public relations discourse and optional in the discourse of economics, but is not found in the accounting discourse. In some instances in the accounting discourse, two occurrences of 'the thing that moves' (n.) and two occurrences of 'amount of movement' (num.) are co-selected in the pattern, connected with each other by the 'hinge' (conj.) *and,* with the pattern ending with 'method of presentation' (adv.) in the form of *respectively.*

Pattern 2 (N=12, 30.77%) in public relations discourse, Pattern 2 (N=37, 22.02%) in the discourse of economics, and Pattern 3 (N=3, 4.84%) in the accounting discourse are similar in that they have in common obligatory semantic elements of 'movement' (n.), 'hinge' (prep.), and 'amount of movement' (num.) in the same sequence. In the accounting discourse, 'hinge (prep.) + the thing that moves (n.)' is added after 'movement' (n.) as an obligatory semantic element; in the discourse of economics, they are optional; in the public relations discourse, they are not found. In the discourses of public relations and economics, 'time before movement' (n.) and 'amount before movement' (num.) are optional semantic elements, connected to the 'amount of movement' (num.) by 'hinge' (prep.); while in the accounting discourse, they are not found in any of the 3 instances.

Another group of similar Local Grammatical Patterns are Pattern 5 (N=2, 5.13%) in public relations discourse, Pattern 3 (N=26, 15.48%) in the discourse of economics, and Pattern 1 (N=47, 75.81%) in the accounting discourse. Those in the discourses of public relations and economics are similar with each other by having in common 'amount of movement (num.) + movement (n.)', with 'movement' (n.) directly preceded by 'amount of movement' (num.); in the accounting discourse, no semantic element associated with 'amount' is found. The patterns in the public relations discourse and accounting discourse are similar with 'movement (n.) + hinge (prep.) +

the thing that moves (n.)' as obligatory semantic elements; in the discourse of economics, 'the thing that moves' is optional. 'Modifier of movement' (adj.) is an optional semantic element specific to the discourses of economics and accounting; 'amount after movement' (num.) is specific to public relations discourse; 'time of movement' (n.) is an optional semantic element specific to the discourse of economics; 'extent' (n.), 'specifications of the thing that moves' (n.), and 'the thing to be excluded from the movement' (n.) are optional semantic elements specific to accounting discourse. Pattern 4 (N=3, 7.69%) in public relations discourse is similar to Pattern 2 (N=2, 28.57%) and Pattern 3 (N=2, 28.57%) in corporate governance discourse by having 'movement' (n.) preceded by 'the thing that moves' (n.). The other local grammatical patterns, namely Pattern 3 (N=5, 12.82%) in public relations discourse, Pattern 4 (N=7, 4.17%) in the discourse of economics, and Pattern 1 (N=3, 42.86%) in corporate governance discourse are specific to each discourse.

Next, the 23 semantic elements of the local grammatical patterns in each discourse type are presented in Table 5.2.

Table 5. 2 Semantic elements of local grammatical patterns of three-word phraseologies of upward movement in four discourse types

	Semantic elements	Public relations discourse	Discourse of economics	Corporate governance discourse	Accounting discourse
1	movement	√	√	√	√
2	hinge	√	√	√	√
3	the thing that moves	√	√	√	√
4	amount of movement	√	√		√
5	modifier of movement	√	√		√
6	amount before movement	√	√		
7	amount after movement	√	√		
8	time of movement	√	√		
9	time before movement	√	√		
10	time after movement	√	√		
11	place of movement	√			

12	specifications of the thing that moves				√
13	extent				√
14	the thing to be excluded from the movement				√
15	method of presentation				√
16	contribute			√	
17	method of contribution			√	
18	range			√	
19	business			√	
20	possessor of the thing that moves			√	
21	member			√	
22	possessor of the member			√	
23	operation			√	

Table 5.2 shows that public relations discourse and the discourse of economics are the most similar pair by sharing ten semantic elements: three semantic elements associated with amount, namely 'amount of movement', 'amount before movement', and 'amount after movement', and three semantic elements associated with time, namely 'time of movement', 'time before movement', and 'time after movement'. The only different semantic element between the two discourses is 'place of movement', which is specific to public relations discourse.

Accounting discourse shares five semantic elements, namely 'movement', 'hinge', 'the thing that moves', 'amount of movement', and 'modifier of movement', with public relations discourse and discourse of economics. In the accounting discourse, 'amount of movement' is the only element about amount, with no semantic element associated with 'time'. Accounting discourse has four unique semantic elements, namely 'specifications of the thing that moves', 'extent', 'the thing to be excluded from the movement', and 'method of presentation'.

Corporate governance discourse is the most different discourse by sharing only three semantic elements with the other three discourses, namely 'movement', 'hinge', and 'the thing that moves', with eight unique semantic elements. None of the semantic elements in corporate governance discourse is associated with amount or time. This finding conforms to the absence of economic performance in corporate governance discourse.

In addition to communicative purposes discussed in the previous paragraphs, the differences in semantic elements across the discourse types may also be attributable to the target readers. The target readers of accounting discourse are specialists, the statistics for whom are self-explanatory, without the need for further illustration; while the target readers of public relations discourse and the discourse of economics are both specialists and outsiders (Bhatia, 2010; de Groot, 2014), so that the statistics need to be restated to illustrate the movements, and more importantly, to show the improvements. It might explain why the semantic elements associated with amount and time are observed more in public relations discourse and in the discourse of economics.

The findings reveal that public relations discourse and the discourse of economics are the most similar pair in the language of upward movement from the aspects of constituent words, relative frequencies, Local Grammatical Patterns, and semantic elements, whereas corporate governance discourse is the most different one.

5.1.2 Comparison of downward movement across discourses

Three-word phraseologies of downward movement are found in the discourse of economics and accounting discourse. The phraseologies in these two discourses and their frequencies are shown in Table 5.3.

Table 5. 3 Phraseologies of downward movement in two discourse types

	Three-word phraseologies	Freq. in discourse of economics	Freq. in accounting discourse
1	*fell/per/cent*	55	0
2	*declined/per/cent*	49	0
3	*decreased/HK$#/million*	36	0
4	*declined/US$#/billion*	34	0
5	*decreased/per/cent*	30	0
6	*decline/fair/value*	0	20
7	*reduced/carrying/amount*	0	14
8	*decreases/amount/impairment*	0	10
9	*decrease/cash/flows*	0	10
10	*decrease/event/objectively*	0	10
Total frequency		204	64
Frequency per 10,000 words		4.86	1.08

As shown in Table 5.3, each discourse has its specific group of phraseologies to indicate the meaning of downward movement. The frequency in the discourse of economics (4.86 per 10,000 words) quadruples the frequency in the accounting discourse (1.08 per 10,000 words). The phraseologies in the discourse of economics all contain numerical information represented by *per cent*, *HK$# million*, or *US$# billion*, while those in the accounting discourse do not. This finding is similar to the situation of upward movement. It is because that the discourse of economics analyses and discusses the accounting information, which is recontexualized in the discourse of economics (Bhatia, 2010). The wide use of numerical data is necessary in the analysis and discussion on the one hand, and on the other hand, it connects the discourse of economics to accounting discourse to give the readers "an unforgettable impression" (ibid.: 41) that the discourse of economics is the interpretation of the accounting information. For the accounting discourse, the absence of numerical data in the phraseologies of downward movement may be due to the format of the discourse that movements are usually represented in tabular forms, rather than in texts. The phraseologies of downward movement usually occur in the discussion of "how valuations were arrived at" (Thomsett, 2007: 21), e.g. "assets and held-to-maturity

investments are impaired when there has been a significant or prolonged decline in the fair value below its cost" (line 11 of *decline/fair/value* in the accounting discourse).

Two and three Local Grammatical Patterns of downward movement are found in the discourse of economics and the accounting discourse respectively. Pattern 2 (N=24, 39.34%) in the accounting discourse and Patterns 1 (N=128, 92.09%) and 2 (N=11, 7.91%) in the discourse of economics all have the 'movement' (v.) preceded by 'the thing that moves' (n.) as obligatory semantic elements, with the difference that the obligatory semantic elements 'amount of movement' (num.) in Pattern 1 and 'amount after movement' (num.) in Pattern 2 in the discourse of economics are not found in the accounting discourse and a majority of the occurrences of 'movement' (v.) are in passive voice in the accounting discourse. The wide use of passive voice in the accounting discourse has also been observed by Schroeder & Gibson (1990), who find that much more passive voice is used in notes to financial statements than MD&As and President's Letters and no significant difference is observed in the use of passive voice between MD&As and President's Letters. This difference is attributable to the confine of rules and regulations in the accounting discourse (Schroeder & Gibson, 1990). The optional semantic elements associated with time and amount in the discourse of economics, such as 'amount after movement' (num.) in Pattern 1 and 'time after movement' (n.) in both patterns, are not found in the accounting discourse either. Instead, the pattern in the accounting discourse has 'specifications of the thing that moves (n.)', 'method of movement' (n.) and 'extent of movement' (n.) as optional semantic elements.

The other two local grammatical patterns, namely Patterns 1 (N=27, 44.26%) and 3 (N=10, 16.39%), are unique to the accounting discourse, because of their unique semantic elements, such as 'connect' (v. passive) and 'nature of connection' (adv.), and the difference in the part of speech of 'movement', which is noun in these two patterns and verb in Pattern 2 and the patterns in the discourse of economics.

In the following, the 16 semantic elements of the local grammatical patterns in each discourse type are presented in Table 5.4.

Table 5. 4 Semantic elements of local grammatical patterns of three-word phraseologies of downward movement in two discourse types

	Semantic elements	Discourse of economics	Accounting discourse
1	movement	√	√
2	hinge	√	√
3	the thing that moves	√	√
4	amount of movement	√	
5	amount before movement	√	
6	amount after movement	√	
7	time of movement	√	
8	time before movement	√	
9	time after movement	√	
10	modifier of movement		√
11	specifications of the thing that moves		√
12	extent of movement		√
13	reason of movement		√
14	connect		√
15	nature of connection		√
16	method of movement		√

Table 5.4 shows that only three semantic elements are shared by both discourses, namely 'movement', 'hinge', and 'the thing that moves'. The other six semantic elements specific to the discourse of economics are all associated with amount or time, namely 'amount of movement', 'amount before movement', 'amount after movement', 'time of movement', 'time before movement', and 'time after movement'. The seven semantic elements specific to the accounting discourse are 'modifier of movement', 'specifications of the thing that moves', 'extent of movement', 'reason of movement', 'connect', 'nature of connection', and 'method of movement'.

The pervasiveness of semantic elements associated with amount and time in the discourse of economics to indicate the meaning of comparison (Rutherford, 2005) and

the absence of these semantic elements in the accounting discourse are in line with the constituent words of the phraseologies of downward movement in these discourses. Rather than discussing the actual performance of the corporation, accounting discourse, especially the notes to the financial statements, discusses more the methods of calculation; in other words, how the statistics in the financial statements are calculated and how the results would be influenced, e.g. "In the case of equity securities classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is considered an indicator that the securities are impaired" (line 15 of *decline/fair/value* in the accounting discourse). These discussions are usually 'boilerplate items' (Rutherford, 2002; Flowerdew & Wan, 2010) that may not be corporate specific.

In conclusion, the discourse of economics and accounting discourse are the only discourses where the three-word phraseologies of downward movement are found to occur more than ten times. The frequency of the downward phraseologies in the discourse of economics quadruples that of the accounting discourse. The language of downward movement in these two discourses is very different from the aspects of constituent words of the phraseologies, Local Grammatical Patterns, and semantic elements.

5.1.3 Comparison of unspecified movement across discourses

Phraseologies of unspecified movement are identified in the discourses of economics, corporate governance, and accounting. The phraseologies in each discourse type and their frequencies are presented below in Table 5.5.

Table 5. 5 Phraseologies of unspecified movement in three discourse types

	Three-word phraseologies	Freq. in discourse of economics	Freq. in corporate governance discourse	Freq. in the accounting discourse
1	*changes/fair/value*	74	0	246
2	*change/fair/value*	24	0	98
3	*changes/equity/statement*	0	10	73
4	*changes/income/statement*	0	0	63
5	*movement/liabilities/net*	40	0	0
6	*changes/interest/rates*	0	0	28
7	*movements/fair/value*	20	0	0
8	*changes/income/interest*	16	0	0
Total frequency		174	10	508
Frequency per 10,000 words		4.15	0.27	8.54

With regard to unspecified movement, two of eight three-word phraseologies (*changes/fair/value* and *change/fair/value*) are shared by the accounting discourse and the discourse of economics and one (*changes/equity/statement*) shared by the accounting discourse and the corporate governance discourse. In addition, different discourses are characterised by unique three-word phraseologies of unspecified movement. The discourse of economics has its unique phraseologies *movement/liabilities/net*, *movements/fair/value*, and *changes/income/interest* and the accounting discourse has its unique phraseologies *changes/income/statement* and *changes/interest/rates*. Since only one phraseology is found in the corporate governance discourse and it is also found in the accounting discourse, the corporate governance discourse does not have any unique phraseology of unspecified movement. The frequency of the phraseologies per 10,000 words in the accounting discourse (8.54) doubles that in the discourse of economics (4.15), followed by the corporate governance discourse (0.27).

Regarding the local grammatical patterns, two pairs are found in the discourse of economics and the accounting discourse, with various degrees of variation, and one

pair is found in the corporate governance discourse and the accounting discourse, with slight difference in optional semantic elements.

Pattern 1 (N=60, 50.85%) in the discourse of economics and Pattern 1 (N=117, 71.78%) in the accounting discourse share the semantic elements 'movement (n.) + hinge (prep.) + the thing that moves (n.) + (hinge <prep.> + specifications of the thing that moves <n.>)' in the same sequence, with differences in the optional semantic elements such as 'share' and 'analysis' in the discourse of economics, and 'influence of movement', 'modifier of movement', and 'reference' in the accounting discourse.

Pattern 3 (N=12, 10.17%) in the discourse of economics and Pattern 3 (N=6, 3.68%) in the accounting discourse have in common 'the thing that moves (n.) + movement (n.) + (hinge <prep.> + specifications of the thing that moves <n.>)' in the same sequence, with differences in the optional semantic elements such as 'influence of movement' and 'modifier of movement' in the discourse of economics and 'reference' and 'statement' in the accounting discourse.

Pattern 2 (N=33, 20.25%) in the accounting discourse is similar to the Local Grammatical Pattern (N=10, 100%) in corporate governance discourse with the same obligatory semantic elements, namely 'statement (n.) + hinge (prep.) + movement (n.) + hinge (prep.) + the thing that moves (n.)', with the difference that the optional semantic elements '(balances <n.> + reference <v. passive> + hinge <prep.>)' are added to the beginning of the pattern in the accounting discourse.

The discourse of economics and accounting discourse are characterised by unique local grammatical patterns. The discourse of economics has its unique Local Grammatical Patterns 2 (N=40, 33.90%) and 4 (N=6, 5.08%) and the accounting discourse has unique Local Grammatical Patterns 4 (N=5, 3.07%) and 5 (N=2, 1.23%).

Below, the 19 semantic elements of the local grammatical patterns in each discourse type are presented in Table 5.6.

Table 5. 6 Semantic elements of local grammatical patterns of phraseologies of unspecified movement in three discourse types

	Semantic elements	Discourse of economics	Corporate governance discourse	Accounting discourse
1	movement	√	√	√
2	hinge	√	√	√
3	the thing that moves	√	√	√
4	specifications of the thing that moves	√		√
5	influence	√		√
6	modifier of movement	√		√
7	the thing being influenced	√		√
8	profit	√		√
9	statement		√	√
10	analysis	√		
11	claims	√		
12	comparison	√		
13	share	√		
14	reference			√
15	portion of movement			√
16	amount of movement			√
17	reason of movement			√
18	transference			√
19	balances			√

Table 5.6 shows that the discourse of economics shares eight semantic elements with the accounting discourse, namely 'movement', 'hinge', 'the thing that moves', 'specifications of the thing that moves', 'influence', 'modifier of movement', 'the thing being influenced', and 'profit', with the first three also shared by the corporate governance discourse. All the four semantic elements in the corporate governance discourse can find their counterparts in the accounting discourse. Four semantic elements, namely 'analysis', 'claims', 'comparison', and 'share', are specific to the discourse of economics and six semantic elements, namely 'reference', 'portion of

movement', 'amount of movement', 'reason of movement', 'transference', and 'balances' are specific to accounting discourse.

The comparison reveals certain degree of similarity in the language of unspecified movement across the three discourse types from the aspects of the constituent words of the phraseologies, Local Grammatical Patterns, and semantic elements, with the most significant difference in the corporate governance discourse in which only one phraseology (N=10) is identified to convey the meaning of unspecified movement and therefore has only one Local Grammatical Pattern and the least semantic elements. A large number of references to the statistics in the accounting discourse are observed in the occurrences of the phraseologies of unspecified movement in the discourse of economics, e.g. "Changes in fair value of long-term debt issued and related derivatives .... (6,247) 6,679" (line 73 of *changes/fair/value* in the discourse of economics, with the item and the statistics connected by a dotted line). In the accounting discourse, a large number of occurrences of the phraseologies explain the methods of calculation and representation, e.g. "Changes in fair value are recognized in profit or loss" (line 114 of *changes/fair/value* in the accounting discourse). The methods of calculation and representation are also included, although occasionally, in the discourse of economics, e.g. "Prior to the implementation of HKAS 40, changes in the fair value of investment properties were recorded in the revaluation reserve" (line 75 of *changes/fair/value* in the discourse of economics). The statistics are of course included in the accounting discourse, e.g. "Profit from operations after changes in fair value of investment properties 12,360 11,146" (line 26 of *changes/fair/value* in the accounting discourse). The similarity between the discourse of economics and accounting discourse may be because the discourse of economics is "apparently on the basis of the information included in the accounting section, to which there are often references in support of the review" (Bhatia, 2010: 39). The reference to the accounting discourse and the use of similar language give readers, especially the outsiders, an impression that the discourse of economics is a "true representation" (ibid.: 40) of accounting discourse. Since the upward movement and downward movement are seldom discussed in detail in the accounting discourse, the relatively

neutral unspecified movement might be the only chance for the discourse of economics to imitate the accounting discourse in the language of movement.

5.2 Comparison across movement types

In this section, comparison is made across movement types in the discourse of economics, corporate governance discourse, and accounting discourse. Comparison was not made in the public relations discourse and legal discourse as no phraseologies of movement are identified in the legal discourse and only one movement type, namely upward movement, is identified in the public relations discourse.

5.2.1 Comparison of movement types in the discourse of economics

Three movement types are studied in the discourse of economics, namely upward movement, downward movement, and unspecified movement. The phraseologies in each movement type and their frequencies are presented below (Table 5.7).

Table 5. 7 Phraseologies of three movement types in the discourse of economics

	Upward movement	Freq	Downward movement	Freq	Unspecified movement	Freq
1	*increased/HK$#/ million*	104	*fell/per/cent*	55	*changes/fair/ value*	74
2	*increased/per/ cent*	91	*declined/per/cent*	49	*movement/lia-bilities/net*	40
3	*rose/per/cent*	85	*decreased/HK$# /million*	36	*change/fair/ value*	24
4	*increase/HK$#/ million*	65	*declined/US$#/ billion*	34	*movements/ fair/value*	20
5	*increase/per/cent*	54	*decreased/per/ce nt*	30	*changes/in-come/interest*	16
Total frequency		399		204		174

Table 5.7 shows that the total frequency of phraseologies indicating upward movement in the discourse of economics (N=399) is approximately the sum of the phraseologies indicating downward movement (N=204) and unspecified movement (N=174). Concerning the constituent words, the phraseologies of upward movement and downward movement contain numerals in the forms of *HK$# million*, *per cent*, or *US$# billion*; while they are not found at all in the unspecified movement.

Comparison of the Local Grammatical Patterns of each movement type in the discourse of economics reveals a high similarity between upward movement and downward movement. Pattern 1 (N=98, 58.33%) of upward movement is exactly the same as Pattern 1 (N=128, 92.09%) of downward movement, exactly the same obligatory semantic elements and optional semantic elements at the same position.

Pattern 4 (N=7, 4.17%) of upward movement is very similar to Pattern 2 (N=11, 7.91%) of downward movement with the same set of semantic elements in the same sequence, with the only difference that some obligatory semantic elements such as 'amount before movement', 'time before movement', and 'time after movement' in upward movement are optional in downward movement. Pattern 2 (N=37, 22.02%) and Pattern 3 (N=26, 15.48%) of upward movement are specific to the movement type, because the 'movement' in these patterns are realized by nouns; while in the local grammatical patterns of downward movement, the 'movement' is always realized by verbs.

The four local grammatical patterns of unspecified movement are different from those of the other two movement types in that semantic elements associated with amount, which are obligatory in the patterns of upward movement and downward movement, are not found in the patterns of unspecified movement.

A detailed description of the 18 semantic elements of each movement type in the discourse of economics is presented in Table 5.8.

Table 5. 8 Semantic elements of each movement type in the discourse of economics

	Semantic elements	Upward movement	Downward movement	Unspecified movement
1	movement	√	√	√
2	hinge	√	√	√
3	the thing that moves	√	√	√
4	amount of movement	√	√	
5	amount before movement	√	√	
6	amount after movement	√	√	
7	time before movement	√	√	
8	time after movement	√	√	
9	time of movement	√	√	
10	modifier of movement	√		√
11	specifications of the thing that moves			√
12	influence			√
13	the thing being influenced			√
14	profit			√
15	analysis			√
16	claims			√
17	comparison			√
18	share			√

Upward movement and downward movement in the discourse of economics have almost the same set of semantic elements. One more semantic element, 'modifier of movement', is identified in upward movement and unspecified movement but not in the downward movement. Unspecified movement is different in that it has in common three semantic elements with downward movement and four semantic elements with upward movement. Unspecified movement is characterised by eight unique semantic elements, such as 'specifications of the thing that moves', 'influence', and 'the thing being influenced'.

The frequency of the phraseologies indicating upward movement in the discourse of economics is approximately the sum of the phraseologies in the other two discourse types. It provides further evidence of Pollyanna effect (Hildebrandt & Snyder, 1981;

Abrahamson & Park, 1994; Clatworthy & Jones, 2003; Henry, 2008; Wang et al., 2012), implying that even in the discourse of economics, which is perceived to be an illustration of the financial statements, an attempt of establishing a positive corporate image also exists. This finding is in line with Rutherford (2005), who studied the lexis in OFRs, a typical text type in the discourse of economics, and found that "the Pollyanna effect is operating in the construction of OFRs" (ibid.: 362), with the greater use of 'up' words as clear evidence. It is supported by Thomsett's (2007) observation of the "obvious bias" (ibid.: 21) of the management by tending to "ignore any adverse information and emphasize the positive" (ibid.: 17). By the same token Bhatia (2010: 41) found that the recontextualization of the accounting information in the discourse of economics "may not be a consistent and true representation of the statistical information and may often lead to varying interpretations".

In a broader social and economic context, the data is composed of the latest corporate annual reports collected in June 2010. They report the corporate performance in the year ended 31 December 2009 (83.33%), in the period from 1 July 2008 to 30 June 2009 (11.11%), or from 1 July 2008 to 31 December 2009 due to the change of financial year end date (5.56%). All the reporting periods overlap with the global financial crisis in 2008 and 2009, which is recognised as the worst financial crisis after the Second World War (Souto, 2009; Bondt, 2010). It hit almost every corner and every industry of the world (Brown, Steen & Foreman, 2009; Bondt, 2010). Hong Kong, as a city with globalized economy, did not escape from the global financial crisis.

According to the statistics of Census and Statistics Department (Hong Kong), the Gross Domestic Product (GDP) decreased by 2.6% in the year 2009 (C&SD, 2010a) to register the first annual decline since 2003, when the city was attacked by SARS. The hint of depression appeared in the third quarter of 2008, when the growth rate of GDP declined sharply from 4.2% to 1.7% (C&SD, 2008). The situation kept worsening in the fourth quarter of 2008, when the GDP registered a decrease of 2.5 per cent (C&SD, 2009a), and in the first quarter of 2009, when the GDP registered a significant decrease

of 7.8 per cent (C&SD, 2009b), followed by a decrease of 3.8 per cent in the second quarter of 2009 (C&SD, 2009c) and 2.4 per cent in the third quarter of 2009 (C&SD, 2009d) when compared with a year earlier. The Hong Kong economy was in a period of 'recession', which is defined as "at least two consecutive quarters of decline in a country's Gross Domestic Product" (Dictionary of Finance and Investment Terms, 2010: 586). The situation started to improve in the fourth quarter of 2009, with an increase in GDP of 2.6 per cent when compared with the same period in 2008 (C&SD, 2010b), which was approximately the start of the global financial crisis. Similarly, the unemployment rate was also influenced by the global financial crisis. After reaching the lowest level of 3.2% in May - July 2008 since early 1998, the unemployment rate increased to 4.1% in the fourth quarter of 2008, and 5.2% and 5.4% in the first and second quarters of 2009 respectively. Improvement was observed in the last two quarters of 2009, with the unemployment rate reaching 5.3% and 4.9% respectively (C&SD, 2010c).

The statistics indicate the considerable impact of the global financial crisis on Hong Kong economy. Despite the gloomy financial situation during the reporting period, the language of movement in the corporate annual reports shows a rather strong tendency of being positive for the promotional purpose. It is understandable that only phraseologies of upward movement identified in the public relations discourse, since its primary purpose is to create a positive image of the company so as to sustain the confidence of the stakeholders (Bhatia, 2010; Ditlevsen, 2012; Dragsted, 2014). However, in the discourse of economics, the major communicative purpose of which is expected to be a discussion of the facts and figures (Rutherford, 2005; Bhatia, 2010), the promotional feature can still find its position, since the frequency of phraseologies of upward movement is much higher than those of the other movement types. This implies that although the corporations have to report a true and fair view of the performance, language can be used to influence the readers' perception.

In Henry's (2008) study of the influence of the rhetorical features of earnings press releases on investors, a number of rhetoric strategies were used by the corporations as

subtle promotion techniques to achieve the promotional purpose. One strategy is that the corporations may choose to include favourable information and exclude unfavourable information (Henry, 2008). For example, in the situation when the sales of the corporation increased, while net income and return on sales decreased, the corporation may only mention the item of 'sales' in the narratives by saying that "In 2007, sales increased by 10%", rather than saying "In 2007, net income decreased by 25%. Profitability deteriorated, with return on sales declining from 20% to 13.6%" (ibid.: 370). Although both expressions are factually correct, the former achieves a much more promotional purpose. By using the first expression, the negative words *decreased*, *deteriorated*, and *declining* are successfully hidden. It conforms to the Pollyanna effect (Hildebrandt & Snyder, 1981) or the "sanitization strategy" (Shin, 1994: 63) which denotes the phenomenon that managers tend to announce good news and suppress bad ones. However, it is very difficult for the readers, especially those without any accounting background, to detect the subtle technique without studying the accounting discourse in detail. The imbalanced frequencies of the phraseologies of movement in the discourses of public relations and economics may be evidence of the use of sanitization strategy.

Sanitization can also be realised by focusing on only a few divisions, which achieved relatively satisfactory performance (Henry, 2008). For example, in "Net interest income in North America increased by 2 per cent to US$15.2 billion" (line 62 of *increased/per/cent* in the discourse of economics), the net interest income in North America, which is one of the sources of the corporation's income, is emphasized due to its relatively high performance. Another example is "These efforts helped increase year-on-year securities turnover by 25.7 per cent" (line 77 of *increase/per/cent* in the discourse of economics), in which securities turnover only represents one of the numerous sources of income of the corporation. It gives the readers a positive impression of the corporation's performance, but most readers do not have a concrete idea about the portion of the business volume of 'securities' in the total business volume of the corporation.

Another promotion technique is to select "a benchmark that allows favorable period-to-period comparison" (Henry, 2008: 371). The default practice in corporate annual reports is to compare the annual performance of the reporting year with that of the previous year. However, in some instances of the current study, although not pervasive, the comparison was made between the two halves of the reporting year. For example, "Securities brokerage business and investment funds business registered a 29.3 per cent and 236.1 per cent increase in turnover in the second half of 2009 compared with the first half of 2009" (line 35 of *increase/per/cent* in the discourse of economics), in which the business volumes were compared between the two halves of the year, rather than compared with the same period of the previous year as the default practice, to give the readers a perception of satisfactory performance. Another interesting example is "Net interest income for the year declined by 5.8 per cent, but increased by 4.1 per cent in the second half compared with the first half" (line 9 of *declined/per/cent* in the discourse of economics), in which two comparisons were included. In the first comparison, the corporation admits the annual decrease in net interest income as default practice; but right after it, the improvement in the second half of 2009 was emphasized by introducing the second comparison.

The use of non-generally accepted accounting principles can be another promotional technique (Henry, 2008), which is also observed in the current study. For example, in "Corporate Banking achieved a 20.1 per cent increase in operating profit excluding loan impairment charges to HK$979 million" (line 59 of *increase/per/cent* in the discourse of economics), the loan impairment charges were excluded in the calculation, which does not conform to any accepted accounting principles but would make the statistics more attractive.

Compared with the others, inclusion of positive evaluation is a less subtle promotional technique (Henry, 2008). Although it is not pervasive in the discourse of economics, some instances are still observed, e.g. "Trading income increased by 23 per cent to US$5.5 billion due to strong revenues across core businesses" (line 27 of *increased/per/cent* in the discourse of economics), in which *strong* and *across core*

businesses were used for positive evaluation; "Income from stockbroking and related services registered encouraging growth of 15.2 per cent on the back of the 25.7 per cent increase in stock trading turnover – a significant outperformance of the Hong Kong stock market" (line 26 of increase/per/cent in the discourse of economics), in which *significant outperformance* was used to indicate the positive evaluation.

Generally speaking, the promotion techniques adopted in the corporate annual reports are found to be very subtle to play an informational role and to appear more credible, which conforms to Henry's (2008) argument.

A high similarity is identified in upward movement and downward movement from the aspects of the constituent words of the phraseologies, Local Grammatical Patterns, and semantic elements. All the phraseologies of upward movement and downward movement contain percentage or amount of money denominated in HK dollar or US dollar as constituent words, indicating the pervasive quantification in the upward and downward movements in the discourse of economics. Their high similarity in Local Grammatical Patterns is due to similar constituent words indicating 'amounts' and the same part of speech of the words *increased* and *rose* in upward movement and *fell*, *declined* and *decreased* in downward movement. The information disclosed quantitatively is usually considered to be of greater importance and higher values than the information disclosed qualitatively in corporate disclosures (Patten, 1995; Smith, Adhikari & Tondka, 2005; Boesso & Kumar, 2007; Ahmed Haji & Mohd Ghazali, 2012). The wide use of numeric data in upward and downward movement supports the importance of the language of movement in corporate annual reports. In addition, quantitative information is viewed as having a positive impact on the readers since the numerical data are usually considered to be more precise, useful and credible, the pervasive use of numerical data can therefore enhance the quality and credibility of the corporate annual reports (Botosan, 1997; Mercer, 2004; Henry, 2008).

The language of unspecified movement is very different from that of the other two movement types. It is not co-selected with any semantic elements associated with

'time' or 'amount'. But it does not mean that the amount and time are left unstated. In many cases, the phraseologies of unspecified movement occur in tables, e.g. "Net insurance claims incurred and movement in liabilities to policyholders .... (12,450) (6,889) (8,608)" (line 10 of *movement/liabilities/net* in the discourse of economics), with the 'amounts' represented in tabular forms and the 'time' represented at the top of the tables. They restate the accounting information, which is the basis of the discussions and analysis (see, for example, Yuthas et al., 2002; Stittle, 2003; Bhatia, 2010). Representing the movements in similar forms with those in the accounting discourse, the writers may be able to make the discourse of economics look more authoritative. Another reason of the significant difference between unspecified movement and upward/downward movement in the discourse of economics is that the phraseologies of unspecified movement are usually expressed in noun groups while those in the other movement types usually in clauses.

5.2.2. Comparison of movement types in corporate governance discourse

Two movement types were studied in corporate governance discourse, namely upward movement realized by *business/development/group* (N=15) and unspecified movement realized by *changes/equity/statement* (N=10).

Regarding the Local Grammatical Patterns, pattern 1 (N=3, 42.86%) of upward movement and the only local grammatical pattern (N=10, 100%) of unspecified movement in the corporate governance discourse are similar by sharing 'movement (n.) + hinge (prep.) + the thing that moves (n.)', with the difference in the co-selection of other semantic elements, such as 'contribute' and 'method of contribution' in upward movement and 'statement' in unspecified movement. Patterns 2 (N=2, 28.57%) and 3 (N=2, 28.57%) of upward movement are specific to the movement type.

A detailed description of the 12 semantic elements of each movement type in corporate governance discourse is presented in Table 5.9.

Table 5. 9 Semantic elements of each movement type in corporate governance discourse

	Semantic elements	Upward movement	Unspecified movement
1	movement	√	√
2	hinge	√	√
3	the thing that moves	√	√
4	statement		√
5	contribute	√	
6	method of contribution	√	
7	range	√	
8	business	√	
9	possessor of the thing that moves	√	
10	member	√	
11	possessor of the member	√	
12	operation	√	

The two movement types in corporate governance discourse share three semantic elements, namely 'movement', 'hinge', and 'the thing that moves', which are observed in all the movement types of all the discourses. The phraseology of unspecified movement is characterised by one unique semantic element 'statement' and the phraseology of upward movement is characterised by eight unique semantic elements, including 'contribute', 'method of contribution', 'member', and 'possessor of the member'.

Neither of the phraseologies is co-selected with semantic elements associated with time or amount. The phraseology of upward movement in the corporate governance discourse is usually abstract and general, e.g. "The Managing Director takes the lead in the Group's operations and business development" (line 15 of *business/development/group* in corporate governance discourse), which indicates an abstract and general concept of upward movement of the Group's business, rather than a concrete factual situation. The phraseology of unspecified movement in the discourse usually constitutes the title of a section of accounting discourse, e.g. "Details of movements in the reserves of the Group are set out in the consolidated statement of changes in equity on page 111" (line 9 of *changes/equity/statement* in corporate

governance discourse), in which the readers were referred to certain sections of the accounting discourse for information.

In conclusion, the phraseology of upward movement and the phraseology of unspecified movement in the corporate governance discourse have a similar frequency (15 instances and 10 instances respectively), but no similarity is observed in their constituent words and only a slight similarity is observed in the local grammatical patterns and semantic elements. The low frequency of the phraseologies of movement in the corporate governance discourse can be attributable to its communicative purpose, which is to report the information of corporate governance and therefore has little concern with the business performance of the corporation.

5.2.3 Comparison of movement types in the accounting discourse

Three movement types are studied in the accounting discourse, namely upward movement, downward movement, and unspecified movement. The phraseologies in each movement type and their frequencies are presented below (Table 5.10).

Table 5. 10 Phraseologies of three movement types in the accounting discourse

	Upward movement	Freq	Downward movement	Freq	Unspecified movement	Freq
1	*increase/fair/value*	40	*decline/fair/value*	20	*changes/fair /value*	246
2	*increase/cash/equi valents*	17	*reduced/carrying/ amount*	14	*change/fair/ value*	98
3	*increase/HK$#/mi llion*	14	*decreases/amount /impairment*	10	*changes/equ ity/statemen t*	73
4	*increased/HK$#/m illion*	10	*decrease/cash/flo ws*	10	*changes/inc ome/stateme nt*	63
5			*decrease/event/ob jectively*	10	*changes/inte rest/rates*	28
	Total frequency	81		64		508

Table 5.10 shows that the total frequency of the phraseologies indicating unspecified movement (N=508) in the accounting discourse is more than 6 times of those indicating upward movement (N=81) and approximately 8 times of those indicating downward movement (N=64). The words *fair* and *value* are observed in the phraseologies of all the three movement types and the word *cash* in 'upward movement and downward movement. In the phraseologies of unspecified movement, the situations of the movement are not specified within the clause. The readers need to read other columns of the table, e.g. "Changes in fair value of securities 575 267" (line 169 of *changes/fair/value* in the accounting discourse), or other sections of the discourse, e.g. "Changes in fair values of investment properties are recorded in the income statement" (line 116 of *changes/income/statement* in the accounting discourse) to obtain the information. The pervasiveness of the phraseologies of unspecified movement, which are categorised as neutral phraseologies (Rutherford, 2005), is different from the Pollyanna effect observed in the public relations discourse and the discourse of economics. This finding provides evidence that the accounting discourse aims to report accurately and factually of corporate performance (Thomsett, 2007; Gibson, 2009; Bhatia, 2010), rather than to establish a positive corporate image.

Regarding the Local Grammatical Patterns, Pattern 1 (N=47, 75.81%) of upward movement, Pattern 1 (N=27, 44.26%) of downward movement, and Pattern 1 (N=117, 71.78%) of unspecified movement have the same obligatory semantic elements 'movement (n.) + hinge (prep.) + the thing that moves (n.)' in the same sequence, preceded by the same optional semantic element 'modifier of movement' (adj.) and followed by the same optional semantic elements 'hinge (prep.) + specifications of the thing that moves (n.)', with differences in the co-selections of other optional semantic elements, such as 'the thing to be excluded from the movement' specific to upward movement, 'reason of movement' specific to downward movement, and 'reference' and 'influence' specific to unspecified movement.

Although Pattern 2 (N=12, 19.35%) of upward movement and Pattern 2 (N=24, 39.34%) of downward movement both have the 'movement' (v.) preceded by 'the thing that moves' (n.), the obligatory semantic element 'amount of movement' (num.) in upward movement is not found in downward movement.

Pattern 3 (N=3, 4.84%) of upward movement and Pattern 2 (N=33, 20.25%) of unspecified movement have 'movement (n.) + hinge (prep.) + the thing that moves (n.)' in common, but upward movement is characterised by its unique obligatory semantic element 'amount of movement' and unspecified movement is characterised by its unique obligatory semantic element 'statement'.

Patterns 3 (N=6, 3.68%), 4 (N=5, 3.07%), and 5 (N=2, 1.23%) of unspecified movement and Pattern 3 (N=10, 16.39%) of downward movement are specific to their movement types due to the differences in obligatory semantic elements, frequency of certain semantic elements in each pattern, and sequence of the semantic elements.

A detailed description of the 22 semantic elements of each movement type in the accounting discourse is presented in Table 5.11.

Table 5. 11 Semantic elements of each movement type in the accounting discourse

	semantic element	upward movement	downward movement	unspecified movement
1	movement	√	√	√
2	hinge	√	√	√
3	the thing that moves	√	√	√
4	modifier of movement	√	√	√
5	specifications of the thing that moves	√	√	√
6	amount of movement	√		√
7	reason of movement		√	√

8	extent	√		
9	the thing to be excluded from the movement	√		
10	method of presentation	√		
11	extent of movement		√	
12	connect		√	
13	nature of connection		√	
14	method of movement		√	
15	influence			√
16	the thing being influenced			√
17	profit			√
18	statement			√
19	reference			√
20	portion of movement			√
21	transference			√
22	balances			√

Table 5.11 indicates that the three movement types of accounting discourse share five semantic elements, namely 'movement', 'hinge', 'the thing that moves', 'modifier of movement', and 'specifications of the thing that moves'. Upward movement and unspecified movement have in common the semantic element 'amount of movement'; downward movement and unspecified movement have in common 'reason of movement'. In addition, different movement types are characterised by unique semantic elements. Upward movement has three unique semantic elements 'extent', 'the thing to be excluded from the movement', and 'method of presentation'; downward movement has four unique semantic elements 'extent of movement', 'connect', 'nature of connection', and 'method of movement'; and unspecified movement has eight unique semantic elements 'influence', 'the thing being influenced', 'profit', 'statement', 'reference', 'portion of movement', 'transference', and 'balances'.

In conclusion, the frequency of the phraseologies of unspecified movement in the accounting discourse is much higher than those of upward movement and downward movement, with the frequency of upward movement slightly higher than downward movement. The pervasive use of neutral phraseologies (Rutherford, 2005) is different from the Pollyanna effect observed in the public relations discourse and the discourse of economics, conforming to the communicative purpose of the discourse. Regarding the constituent words of the phraseologies, the words *fair* and *value* are observed in the phraseologies of all the three movement types. A high similarity is observed in one group of local grammatical patterns in all the three movement types. Five semantic elements are shared by the three movement types; one is shared by upward movement and unspecified movement; and one by downward movement and unspecified movement, with the most unique semantic elements identified in unspecified movement (N=8), followed by downward movement (N=4) and upward movement (N=3).

Compared with the significant difference observed between unspecified movement and upward and downward movement in the discourse of economics, the three movement types in the accounting discourse are more similar with each other. It is partly due to the lower frequency of the semantic elements associated with 'amount' in the upward and downward movements in the accounting discourse as compared with that in the discourse of economics. As discussed in the previous sections, it is because the accounting discourse seldom discusses the actual performance of the corporation in detail, since the statistics have been shown in the financial statements, e.g. "Increase in fair value of investment properties 16(a) 7,156 6,706" (line 20 of *increase/fair/value* in the accounting discourse). More focus is put on 'boilerplate items' (Rutherford, 2002; Flowerdew & Wan, 2010), such as the calculation method of certain items, e.g. "In the case of equity securities classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is considered an indicator that the securities are impaired" (line 15 of *decline/fair/value* in the accounting discourse) and the presentation of the statistics, e.g. "Any subsequent increase in the fair value of such assets is recognised directly in equity" (line 50 of *increase/fair/value* in the accounting

discourse). This situation is attributed by Thomsett (2007) to the increased disclosure requirements, especially following the corporate bankruptcies such as Enron and WorldCom. The notes to financial statements are less informative, and more to "satisfy a legal disclosure requirement" (ibid.: 2) and to explain "how valuations were arrived at" (ibid.: 21).

5.3 Summary

In Chapter 5, the findings of different discourse types and movement types are compared and constrasted from the aspects of frequency and constituent words of phraseologies, Local Grammatical Patterns, and semantic elements.

In terms of frequencies of the phraseologies of movement, upward movement (N=5.91, i.e. 5.91 times per 10,000 words) is the only movement type in the public relations discourse. In the economic discourse, the frequency of the phraseologies of upward movement (N=9.51) is about the sum of the frequencies of the phraseologies of downward movement (N=4.86) and unspecified movement (N=4.15). In the accounting discourse, the frequency of the phraseologies of unspecified movement (N=8.54) is much higher than upward (N=1.36) and downward (N=1.08) movements. The frequencies of the phraseologies of upward movement (N=0.40) and unspecified movement (N=0.27) are extremely low because it reports the information on corporate governance rather than on business performance.

The comparison reveals two similar groups in terms of constituent words of phraseologies, Local Grammatical Patterns, and semantic elements. One group is the language of upward movement in the public relations discourse and the language of upward movement and downward movement in the discourse of economics. The similarity can be attributable to the pervasive quantification in these two discourses, especially when dealing with upward and downward movements. The other similar group is upward movement, downward movement, and unspecified movement in the

accounting discourse and unspecified movement in the discourse of economics. But the language of unspecified movement in the discourse of economics focuses more on the repetition of the statistics in the accounting discourse; while the language of the three movement types in accounting discourse focuses more on the method of calculation and representation.

Chapter 6 Conclusion and implications

6.1 Introduction

The present study explores the local grammars of movement in financial English to illustrate the value and significance of a fuller description of specific kinds of language use with specific language patterns. This chapter presents the major findings in relation to the research questions (6.2) and the implications of the study (6.3), and describes the limitations of the current study and suggestions for future research (6.4).

6.2 Major findings

This section summarises the major findings in relation to the research questions, as follows:

Research Question One

What are the phraseologies used to construe the meanings of movement in the five discourses of corporate annual reports?

As discussed in 3.2, the cutoff of the frequency of the phraseologies was set to be 10 in the sub-corpora of public relations discourse, discourse of economics, corporate governance discourse and accounting discourse and 3 in the sub-corpus of legal discourse due to the relatively small size of the sub-corpus. Three movement types are identified in the sub-corpora: upward movement (e.g., *increased/HK$#/million*), downward movement (e.g., *fell/per/cent*), and unspecified movement (e.g., *changes/fair/value*). The five most frequently occurring three-word phraseologies in each movement type were selected for study.

In the public relations discourse, only phraseologies of upward movement are identified. In corporate governance discourse, only one phraseology of upward movement and one phraseology of unspecified movement are identified. The discourse of economics and accounting discourse are the discourses with all the three movement types. In legal discourse, no phraseology is observed to convey the meaning of movement. Altogether, 27 phraseologies of movement were studied, as shown in Chapter 4.

Research Question Two

What are the local grammars of movement in the five discourses of corporate annual reports?

The local grammars of all the 27 phraseologies were successfully explored (sections 4.1-4.5). The phraseologies are identified in four out of five discourses of corporate annual reports. The local grammars of the phraseologies were discussed at two levels: lexico-grammatical pattern and semantic pattern. The canonical local grammatical pattern of each phraseology was identified, with the other patterns considered as its variants with various degrees of variation.

It is observed that the phraseologies of each movement type in each discourse share some local grammatical patterns and semantic elements, with some unique features. It indicates the co-selection of local grammatical patterns and semantic elements with phraseologies, which is in concord with the notions of 'collocation', 'colligation' and 'semantic preference' in Sinclair's (1996; 2004) five categories of co-selection.

Based on the local grammatical patterns of the 27 phraseologies, the local grammars of each movement type in each discourse were generated by combining the local grammatical patterns of the phraseologies into patterns with obligatory elements and optional elements. The number of synthesized Local Grammatical Patterns of each movement type in each discourse ranges from two to five: five in upward movement in

the public relations discourse and unspecified movement in the accounting discourse, four in upward movement and unspecified movement in the discourse of economics, three in upward movement and downward movement in the accounting discourse, and two in downward movement in the discourse of economics. The local grammatical patterns of upward movement and unspecified movement in corporate governance discourse were not combined since only one phraseology was identified in each movement type.

The local grammatical patterns of the 27 phraseologies of movement in CARs were compared with the grammatical patterns of verbs (Francis et al., 1996) and nouns (Francis et al., 1998) in the 'increase' and 'decrease' group and the 'change' group in general English. Focusing on the language of movement, the local grammatical patterns in the current study may use terms specific to movement, such as 'the thing that moves' and 'amount of movement', so as to make the grammatical patterns more precise (Hunston & Sinclair, 2000). It Only a limited number of grammatical patterns (Francis et al., 1996; 1998) were used in the meaning construal of 'movement' in corporate annual reports, so it could be argued that using local grammar to describe a small set of language can be more simple (Hunston & Sinclair, 2000). However, some local grammatical patterns of movement do not find their counterparts in the patterns of the words in the 'increase' and 'decrease' group and the 'change' group (Francis et al., 1996; 1998). It reveals that the language of movement in corporate annual reports has its unique features that may not be shared by their counterparts in general English. Local grammar hence provides a good solution for the description of these unique features.

Research Question Three

How are the local grammars of different types of movement similar to and different from each other across discourse types and across movement types in the corporate annual reports?

Comparison was made across discourse types and across movement types from four aspects: frequency of phraseologies, constituent words of phraseologies, Local Grammatical Patterns, and semantic elements.

The comparison of the frequency of phraseologies indicates that upward movement (N=17.18, i.e. 17.18 times per 10,000 words), which is considered to convey a positive meaning (Ahmad et al., 2005; Rutherford, 2005; Wang et al., 2012), is the most frequently occurring movement type in CARs, followed by unspecified movement (N=12.96) and downward movement (N=5.94). The imbalance in frequency in CARs conforms to the Pollyanna effect (Hildebrandt & Snyder, 1981; Abrahamson & Park, 1994, Clatworthy & Jones, 2003; Rutherford, 2005; Wang et al., 2012), even during the period of financial crisis.

Among the discourse types, the discourse of economics uses phraseologies of movement most frequently (N=18.52), followed by the accounting discourse (N=10.98), the public relations discourse (N=5.91), and the corporate governance discourse (N=0.67). The difference in the frequency can be attributable to the different communicative purposes of the discourses.

The discourse of economics (N=9.51) and the public relations discourse (N=5.91) use phraseologies of upward movement most frequently; while the accounting discourse uses phraseologies of unspecified movement most frequently (N=8.54). It shows the Pollyanna effect in the public relations discourse and the discourse of economics, but not in the accounting discourse, the corporate governance discourse, and the legal discourse, at least not by the use of the phraseologies of movement. It implies that the public relations discourse and the discourse of economics are more likely to be used by the corporations to manipulate the impressions of the audience in a subtle way. The situation remains the same even during the global financial crisis, which has brought considerable impact on Hong Kong economy (Census and Statistics Department, Hong Kong).

Comparison from the other three aspects shows two groups of phraseologies with a relatively high similarity: one is the phraseologies of upward movement in the public relations discourse and upward and downward movements in the discourse of economics, featured by the pervasive use of numerical data and semantic elements associated with amount; and the other is upward movement, downward movement, and unspecified movement in the accounting discourse and unspecified movement in the discourse of economics, with the language of unspecified movement in the discourse of economics focusing more on the repetition of the statistics in the accounting discourse and the language of the three movement types in the accounting discourse focusing more on the method of calculation and representation. A low similarity of the constituent words of phraseologies, Local Grammatical Patterns, and semantic elements is observed in the other movement types. The similarities and differences manifest the co-selection of phraseology, Local Grammatical Pattern, and semantic element with movement type and discourse type.

Critical discourse analysis of the similarities and differences indicates that the pervasive use of numerical data in the movement in the public relations discourse lends the discourse factual reliability and credibility and gives outsiders an impression that the public relations discourse may be a conclusion of the audited accounting discourse (Bhatia, 2010). The wide use of numerical data and semantic elements associated with amount in the discourse of economics is certainly and understandably necessary in the analysis and discussion. In addition, it connects the discourse of economics to accounting discourse to give the readers an impression that the discourse of economics is the interpretation of the accounting information. The information disclosed quantitatively is usually considered to be of greater importance and higher values than the information disclosed qualitatively in corporate disclosures (Patten, 1995; Smith et al., 2005; Boesso & Kumar, 2007; Ahmed Haji & Mohd Ghazali, 2012). The wide use of numeric data in upward and downward movement supports the importance of the language of movement in corporate annual reports. In addition, quantitative information is viewed as having a positive impact on the readers since the numerical data are usually considered to be more precise, useful and credible, the

pervasive use of numerical data can therefore enhance the quality and credibility of the corporate annual reports (Botosan, 1997; Mercer, 2004; Henry, 2008).

In contrast, much fewer numerical data or semantic elements associated with amount are identified in the accounting discourse. It may be because the target readers of the accounting discourse are persons with accounting background, the movements are usually self-explanatory in tabular forms and discussions are seldom included, except for the explanations of "how valuations were arrived at" (Thomsett, 2007: 21) in the notes to financial statements.

In conclusion, although a few discourses share certain local grammatical features, each discourse has its unique patterns and characteristics. Corporate annual report is a typical example of an informational genre being influenced by promotional purposes (Bhatia, 2002). The distribution of phraseologies of movement and the local grammars of the phraseologies across discourse types confirm Bhatia's (2010) argument that the corporate annual report is made up of different discourses with different communicative purposes and language features. The Pollyanna effect is observed in public relations discourse and the discourse of economics, but not in the accounting discourse, corporate governance discourse, and legal discourse. However, the pervasiveness of upward movement over downward movement is not the only criterion of observing the Pollyanna effect, especially for corporate governance discourse and legal discourse, in which very limited language of movement is involved.

6.3 Implications of findings

As the first systematic study of the language of movement in financial English, the current research project may have both theoretical and methodological implications in fields of grammar, phraseology, critical discourse analysis, the five categories of co-selection, English language teaching, and computational linguistics.

In the field of grammar, this study represents a new member in the small family of local grammar studies. Like the other local grammar studies with the focus on the functions and meaning construal, this study has identified semantic elements exclusive to the language of movement, such as 'the thing that moves', 'amount of movement', and 'time of movement', to make a clearer description of the meaning construal of movement in CARs. The language of each movement type in each discourse is successfully represented in no more than five Local Grammatical Patterns with obligatory and optional elements. The findings provide evidence to the effectiveness of approach to local grammar in the study of a small set of language. It also lends support to the possibility of exhausting the expressions of movement in financial English or maybe even in general English.

In the field of phraseology, the findings of the study are in concord with the observation of the pervasiveness of word co-selections, which are not confined to contiguous words, but also the word co-selections with positional and constituent variations. By adopting the local grammar approach to phraseology, the study integrates lexis, syntax, and semantics, and demonstrates the indispensible relationship between phraseologies and grammatical patterns.

In the field of critical discourse analysis, the study explains the linguistic features of the language of movement with the communicative purposes of the discourses and the power relation and interaction between corporations and stakeholders. The study also helps to raise the public's awareness of the nature of the discourse types in the important genre of corporate annual reports in financial services. It has made a successful attempt to connect language and society.

The study confirms the co-selection of local grammatical patterns and semantic elements with phraseologies, which is in concord with 'collocation', 'colligation' and 'semantic preference' (Sinclair, 1996; 2004). In addition, the study also reveals the co-selection of phraseologies and grammatical patterns specific to discourse types, which might be regarded as an extension of Sinclair's theory of co-selection.

Pedagogically, the study gives a thorough description of the local grammatical patterns of phraseologies of movement in corporate annual reports, which can provide useful information for ESP materials writing for the use of phraseologies of movement, especially in financial settings. It can also help to raise students' awareness of the co-selection among words, grammatical patterns, and semantic elements specific to discourse types in corporate annual reports. For financial practitioners, the study provides some insights in their preparation of corporate annual reports and other documents associated with business performance.

In the area of data processing, the successful generation of local grammars of movement in financial English lends support to the possibility of syntactic parsing of financial English texts.

6.4 Limitations and suggestions for future research

As described in section 3.1, the CCAR consists of the latest corporate annual reports of 18 Hang Seng Index constituent companies collected in June 2010, reporting the performance of the companies in the previous financial year, namely year 2009 or year 2008 to 2009, depending on when the financial year of each company starts. This period is widely considered to be during the global financial crisis (see, for example, Lischinsky, 2011; Murphy, 2013; Dragsted, 2014). It would be an interesting study to compare the findings of the current study with those before and after the financial crisis to see how the local grammars of the phraseologies of movement change with different financial situations.

Since the compilation and division of the corpus and sub-corpora demand considerable time and effort, the current study is confined to 18 corporate annual reports, covering 42.86% of all the 42 Hang Seng Index companies. Although it can be argued that the 1.5-million-word corpus well represents the Hang Seng Index companies, the

expansion of the corpus would surely enlarge the sub-corpora, so as to possibly enrich the phraseologies of movement and their local grammatical patterns.

Another potential area for future research is to study the similarities and differences of the language of movement across industries. The 42 Hang Seng Index constituent companies represent ten industries including financials, conglomerates, property and construction, utilities, service, and energy (Oxfam, 2010). Whether the local grammars of phraseologies of movement vary across industries will provide insights to a deeper understanding of not only the genre of corporate annual reports and Hong Kong economy, but also applied language studies of business and professional communication.

Finally, the study concentrates on meaning shift units, rather than collocational frameworks and organisational frameworks. However, as widely observed (Gledhill, 2000; Hunston, 2008; Bondi, 2010; Bondi & Seidenari, 2012; Bondi & Diani, 2015), key grammatical words are also a good starting point to find the language features of a discipline. The CCAR can therefore be explored in terms of key grammatical words for a broader picture of corporate annual reports.

Appendices

Appendix 1 Four local grammatical patterns of *increased/HK$#/million* in public relations discourse with linguistic realizations (with line numbers and frequencies)

	n	v	prep	num			prep	num			
1	the thing that moves	movement	hinge	amount of movement			hinge	amount after move-ment			10
22	*Group turnover for 2009*	*increased*	*by*	*10%*			*to*	*HK$17,553 million*			1
23	*profit before tax*	*increased*	*by*	*7.1%*			*to*	*HK$5,915 million*			1
24	*total operating expenses*	*increased*	*by*	*38.4%*			*to*	*HK$12,141 million*			1
10	*total equity*	*increased*	*by*	*21.7%*			*to*	*HK$39,523 million*			1
5	*EBIT*	*increased*	*by*	*30%*			*to*	*HK$5,692 million*			1
9	*net rental income*	*increased*	*by*	*21 per cent*			*to*	*HK$7,271 million*			1

25	*the Group's gross rental income, including contributions from joint-venture projects,*	*increased*	*by*	*18 per cent*			*to*	*HK$9,763 million*			1
6	*total deposits from customers*	*increased*	*by*	*a total of 4.0%*			*to*	*HK$844,453 million*			1
13	*Underlying attributable profit, which principally excludes the effect of valuation gains on investment properties and the associated deferred tax,*	*increased*	*by*	*HK$3,237 million*			*to*	*HK$8,475 million*			1
16	*Underlying profit attributable to shareholders, which primarily adjusts for changes in property valuations and the associated deferred tax,*	*increased*	*by*	*HK$3,237 million*			*to*	*HK$8,475 million*			1
2	n the thing that moves	v movement	prep hinge	num amount of move-ment			prep hinge	num amount after move-ment	prep hinge	n time after move-ment	3
18	*net assets employed by the Aviation Division*	*increased*	*by*	*HK$4,638 million*			*to*	*HK$21,654 million*	*at*	*31st December 2009*	
17	*net assets employed by the Beverages Division*	*increased*	*by*	*HK$530 million*			*to*	*HK$4,573 million*	*at*	*31st December 2009*	
19	*net assets employed by the Marine Services*	*increased*	*by*	*HK$452 million*			*to*	*HK$7,882 million*	*at*	*31st Decembe*	

										r 2009	
3	n	v		num			prep	num			**2**
	the thing that moves	movement		amount of movement			hinge	amount after movement			
4	*profit attributable to equity holders*	*increased*		*14.8%*			*to*	*HK$547.3 million*			1
21	*profit attributable to shareholders*	*increased*		*103%*			*to*	*HK$468 million*			1
4	n	v	prep	num	prep	n	prep	num			**2**
	the thing that moves	movement	hinge	amount of movement	hinge	time of movement	hinge	amount after movement			
14	*net debt*	*increased*	*by*	*HK$1,235 million*	*during*	*the year*	*to*	*HK$31,681 million*			1
15	*the Group's total net assets employed*	*increased*	*by*	*HK$18,396 million*	*during*	*2009*	*to*	*HK$185,030 million*			1

Appendix 2 One local grammatical pattern of *increase/per/cent* in public relations discourse with linguistic realizations (with line numbers and frequencies)

1	n		prep	num	prep	n	**6**
	movement		hinge	amount of movement	hinge	time before movement	
2	*an*	*increase*	*of*	*31 per cent*	*over*	*2008*	1
3	*an*	*increase*	*of*	*one per cent*	*from*	*last year*	1
9	*an*	*increase*	*of*	*22.0 per cent*	*over*	*2008*	1
10	*an*	*increase*	*of*	*48 per cent*	*over*	*last year*	1
12	*an*	*increase*	*of*	*6.1 per cent*	*over*	*2008*	1
13	*an*	*increase*	*of*	*two per cent*	*from*	*last year*	1
Total frequency							6

Appendix 3 Three local grammatical patterns of *increase/HK$#/million* in public relations discourse with linguistic realizations (with line numbers and frequencies)

1	det		n	prep	num			4
	movement			hinge	amount of movement			
30 31	*an*		*increase*	*of*	*HK$872.5 million*			2
9	*an*		*increase*	*of*	*HK$29 million or 23%*			1
21	*an*		*increase*	*of*	*HK$2,534 million*			1
2	det		n	prep	num	prep	num/n	3
	movement			hinge	amount of movement	hinge	amount before movement	
19	*an*		*increase*	*of*	*HK$380 million or 7%*	*over*	*HK$5,708 million (restated) for the twelve months ended 30 June 2008*	1
12	*an*		*increase*	*of*	*81 per cent*	*from*	*last year's HK$14,151 million*	1
29	*an*		*increase*	*of*	*HK$18,828 million*	*over*	*the position at the end of 2008*	1
3	det	num	n	prep	n	prep	num	2
	amount of movement		movement	hinge	the thing that moves	hinge	the amount after movement	
35	*a*	*10%*	*increase*	*in*	*recurring profit*	*to*	*HK$5,313 million*	1
37	*a*	*20.1 per cent*	*increase*	*in*	*operating profit excluding loan impairment charges*	*to*	*HK$979 million*	1
Total frequency								9

Appendix 4 Three local grammatical patterns of *development/Hong/Kong* in public relations discourse with linguistic realizations (with line numbers and frequencies)

1	n			prep	n	prep	n	3
	movement			hinge	the thing that moves	hinge	place of movement	
22	*the*		*development*	*of*	*RMB bond business*	*in*	*Hong Kong*	1
27	*the*		*development*	*of*	*electric vehicles (EVs)*	*in*	*Hong Kong*	1
28	*the*		*development*	*of*	*the hospitality industry*	*in*	*Hong Kong*	1
2	adj/n		n			prep	n	3

		the thing that moves		movement				hinge	place of movement	
12			*sports*	*development*				*in*	*Hong Kong*	1
21		*the*	*economic and social*	*development*				*of*	*Mainland China and Hong Kong*	1
14		*the*	*organisation*	*development*				*for*	*Hong Kong and mainland projects*	1
3	adj			n	prep	n		prep	n	2
	modifier of the movement			movement	hinge	the thing that moves		hinge	place of movement	
25 26	*the*		*sustainable*	*development*	*of*	*its various businesses*		*in*	*Hong Kong and the Mainland*	2

Appendix 5 Three local grammatical patterns of *increased/HK$#/million* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

1	n	v	prep	num			
	the thing that moves	movement	hinge	amount of movement			16
34	*income from securities, derivatives and other trading activities*	*increased*	*by*	*HK$60 million, or 84.5 per cent*			1
36	*total investment and insurance income*	*increased*	*by*	*HK$536 million, or 25.8%*			1
39	*the Group's net interest income*	*increased*	*by*	*HK$74 million, or 0.8%*			1
49	*advances and other accounts*	*increased*	*by*	*HK$57,642 million, or 12.3%*			1
57	*staff costs*	*increased*	*by*	*HK$537 million, or 11.8%*			1
23	*securities investments*	*increased*	*by*	*HK$22,856 million or 6.8%*			1
54	*premises and equipment expenses*	*increased*	*by*	*HK$84 million or 7.8%*			1
66	*cash and balances with banks and other financial institutions*	*increased*	*by*	*HK$7,519 million or 4.9%*			1
21	*total liabilities*	*would have*	*increased*	*by*	*HK$3,261 million or 0.9%*		1
26	*total assets*	*would have*	*increased*	*by*	*HK$899 million or 0.1%*		1

	n	v	prep	num	prep	num	
37	operating expenses	would have	increased	by	HK$919 million or 23.1%			1
11	the net gain on the disposal of assets held for sale		increased	by	HK$187 million			1
51	contributions from jointly controlled companies in the Beverages Division		increased	by	HK$94 million			1
64	operating profit from the Trading & Industrial Division		increased	by	HK$74 million			1
45	net assets employed in aviation		increased	by	HK$4,638 million (27.3%)			1
46	net assets employed		increased	by	HK$530 million (13.1%)			1
	n		v	prep	num	prep	num	
2	the thing that moves		movement	hinge	amount of movement	hinge	amount after movement	15
18	Wharf T&T's operating profit		increased	by	52%	to	HK$213 million	1
32	the Group's total equity		increased	by	15%	to	HK$122,164 million	1
78	gross rental income		increased	by	67%	to	HK$6,025 million	1
80	risk-weighted assets for credit risk		increased	by	6.1%	to	HK$578,374 million	1
83	advances and other accounts, including mortgage loans and cards advances,		increased	by	6.7%	to	HK$162,422 million	1
84	the Group's profit attributable to equity shareholders		increased	by	180%	to	HK$17,501 million	1
87	other operating income		increased	by	17.9%	to	HK$6,486 million	1
89	other operating income		increased	by	16.1%	to	HK$4,853 million	1
28	treasury's profit before tax		increased	by	48.9 per cent	to	HK$3,393 million	1
93	the Group's gross rental income, including contributions from joint-venture properties,		increased	by	18 per cent	to	HK$9,763 million	1
38	minority interests		increased	by	HK$116 million	to	HK$587 million	1

50	*the Group's total operating expenses*		*increased*	*by*	*HK$3,370 million, or 38.4%*	*to*	*12,141 million*	1
53	*profit contribution from other businesses for the eighteen months ended 31 December 2009*		*increased*	*by*	*HK$51 million, or 15%,*	*to*	*HK$394 million*	1
56	*the Group's net operating income before impairment allowances*		*increased*	*by*	*HK$529 million, or 2.1%,*	*to*	*HK$26,055 million*	1
67	*other operating expenses*		*increased*	*by*	*HK$214 million or 15.5%*	*to*	*HK$1,594 million*	1
3	**n** the thing that moves		**v** movement		**num** amount of movement	**prep** hinge	**num** amount after movement	3
73	*total revenue of the property and hotels division*		*increased*		*33%*		*to*	*HK$13,912 million*	1
74	*total revenue*		*increased*		*33%*		*to*	*HK$13,912 million*	1
102	*turnover for the year*		*increased*		*93%*		*to*	*HK$608 million*	1

Appendix 6 Six local grammatical patterns of *increased/per/cent* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

1	**n** the thing that moves	**v** movement	**prep** hinge	**num** amount of movement					17
10	*net earned insurance premiums*	*increased*	*by*	*3 per cent*					1
16	*total shareholders' equity*	*increased*	*by*	*31 per cent*					1
29	*total operating income*	*increased*	*by*	*3.9 per cent*					1
60	*operating expenditure*	*increased*	*by*	*6 per cent*					1
61	*profit from associates and joint ventures in the region*	*increased*	*by*	*9 per cent*					1
64	*operating expenses*	*increased*	*by*	*90 per cent*					1
69	*staff numbers*	*increased*	*by*	*30 per cent*					1

72	*other operating income*	*increased*	*by*	*33 per cent*				1
73	*other operating income*	*increased*	*by*	*45 per cent*				1
80	*the number of cross-border intra-Group referrals*	*increased*	*by*	*48 per cent*				1
84	*net interest income*	*increased*	*by*	*43 per cent*				1
85	*HSBC's share of profits from Ping An Insurance (Group) Company of China, Limited ('Ping An Insurance')*	*increased*	*by*	*62 per cent*				1
86	*profit before tax*	*increased*	*by*	*25 per cent*				1
87	*loans and advances to banks*	*increased*	*by*	*12 per cent*				1
92	*cash and balances at central banks*	*increased*	*by*	*12 per cent*				1
93	*net interest income*	*increased*	*by*	*33 per cent*				1
99	*net interest income*	*increased*	*by*	*13 per cent*				1
2	n	v	prep	num		prep	num	
	the thing that moves	movement	hinge	amount of movement		hinge	amount after movement	10
9	*releases and recoveries of allowances*	*increased*	*by*	*17 per cent*		*to*	*US$1.5 billion*	1
27	*trading income*	*increased*	*by*	*23 per cent*		*to*	*US$5.5 billion*	1
41	*annualised premiums*	*increased*	*by*	*14.7 per cent*		*to*	*HK$13.7 billion*	1
52	*reported client assets*	*increased*	*by*	*4 per cent*		*to*	*US$367 billion*	1
62	*net interest income in North America*	*increased*	*by*	*2 per cent*		*to*	*US$15.2 billion*	1
81	*reported net insurance claims incurred and*	*increased*	*by*	*81 per cent*		*to*	*US$12.5 billion*	1

#	n	v	prep	num	prep	n	prep	num	prep	n	
	movement in liabilities to policyholders										
98	*loan impairment charges and other credit risk provisions*	*increased*	*by*	*56 per cent*			*to*	*US$3.3 billion*			1
100	*net earned premiums*	*increased*	*by*	*13 per cent*			*to*	*US$3.7 billion*			1
130	*interest-only mortgage balances*	*increased*	*by*	*21 per cent*			*to*	*US$45 billion*			1
119	*the cost efficiency ratio*	*increased*	*by*	*2.1 percentage points*			*to*	*60.5 per cent*			1
3	n	v	prep	num			prep	num	prep	n	
	the thing that moves	movement	hinge	amount of movement			hinge	amount after movement	hinge	time after movement	3
35	*impaired loans*	*increased*	*by*	*37 per cent*			*to*	*US$2.3 billion*	*at*	*31 December 2008*	1
79	*impaired loans*	*increased*	*by*	*59 per cent*			*to*	*US$10.9 billion*	*at*	*31 December 2009*	1
94	*releases and recoveries in Latin America*	*increased*	*by*	*56 per cent*			*to*	*US$391 million*	*at*	*31 December 2009*	1
4	n	v	prep	num			prep	num	prep	n	
	the thing that moves	movement	hinge	amount of movement			hinge	amount after movement	hinge	time of movement	2
67	*the Group's gross rental income, including contributions from joint-venture properties*	*increased*	*by*	*18 per cent*			*to*	*HK$9,763 million*	*during*	*the year under review*	1
88	*total financial investments excluding equity securities*	*increased*	*by*	*23 per cent*			*to*	*US$360 billion*	*in*	*2009*	1
5	n	v	prep	num	prep	n	prep	num	prep	n	

	the thing that moves	movement	hinge	amount before movement	hinge	time before movement	hinge	amount after movement	hinge	time after movement	2
102	*two months or more delinquency rates*	*increased*	*from*	*6 per cent*	*at*	*31 December 2008*	*to*	*6.6 per cent*	*at*	*31 December 2009*	1
103	*contractual delinquency*	*increased*	*from*	*4 per cent*	*at*	*31 December 2008*	*to*	*4.1 per cent*	*at*	*31 December 2009*	1
6	n	v	prep	num	prep	num	prep	num	prep	n	
	the thing that moves	movement	hinge	amount of movement	hinge	amount after movement	hinge	amount before movement	hinge	time of movement	2
55	*loan impairment charges*	*increased*	*by*	*3 per cent*	*to*	*US$24.9 billion*	*from*	*US$24.1 billion*	*in*	*2008*	1
96	*loan impairment charges*	*increased*	*by*	*40 per cent*	*to*	*US$24.1 billion*	*from*	*US$17.2 billion*	*in*	*2007*	1

Appendix 7 Three local grammatical patterns of *rose/per/cent* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

	n	v	prep	num							
1	the thing that moves	move-ment	hinge	amount of movement							23
15	*income from stockbroking and related services*	*rose*	*by*	*15.2 per cent*							1
16	*card receivables*	*rose*	*by*	*7.6 per cent*							1
21	*loan impairment charges*	*rose*	*by*	*30.8 per cent*							1
39	*reported net interest income of US$42.6 billion*	*rose*	*by*	*13 per cent*							1
42	*new allowances for loan impairment charges*	*rose*	*by*	*37 per cent*							1
17	*insurance fee income*	*rose*	*by*	*93.9 per cent*							1
22	*operating expenses*	*rose*	*by*	*4 per cent*							1
23	*income from associates and joint ventures*	*rose*	*by*	*5 per cent*							1
27	*operating expenses within*	*rose*	*by*	*9 per cent*							1

	the Group Service and Software Development Centres							
43	*personal e-Banking's total online transaction revenue*	*rose*	*by*	*21 per cent*				1
45	*financial investments*	*rose*	*by*	*17 per cent*				1
47	*net earned insurance premiums*	*rose*	*by*	*24 per cent*				1
51	*income from associates and joint ventures*	*rose*	*by*	*51 per cent*				1
52	*trading income*	*rose*	*by*	*34 per cent*				1
53	*loan impairment charges and other credit risk provisions*	*rose*	*by*	*15 per cent*				1
58	*costs at HSBC's Group Service Centres*	*rose*	*by*	*10 per cent*				1
60	*depreciation charges*	*rose*	*by*	*7.9 per cent*				1
62	*other operating income*	*rose*	*by*	*163 per cent*				1
65	*lending to individuals*	*rose*	*by*	*9.3 per cent*				1
68	*net interest income and fee income from the life insurance funds investment portfolio*	*rose*	*by*	*43.7 per cent*				1
69	*financial investments – primarily high-quality debt securities which included government-guaranteed debt securities*	*rose*	*by*	*33.3 per cent*				1
70	*customer advances*	*rose*	*by*	*12.1 per cent*				1
79	*loan impairment charges*	*rose*	*by*	*US$515 million or 69 per cent*				1
2	n	v	prep	num		prep	num	
	the thing that moves	move-ment	hinge	amount of movement		hinge	amount after movement	7
25	*loan impairment charges*	*rose*	*by*	*9 per cent*		*to*	*US$649 million*	1

	n	v	prep	num	prep	n	prep	num	prep	n	
28	new loan impairment allowances	rose	by	7 per cent			to	US$26.4 billion			1
38	HSBC's share of profits from Bank of Communications	rose	by	52 per cent			to	US$741 million			1
44	releases and recoveries in North America	rose	by	55 per cent			to	US$180 million			1
48	loan impairment charges	rose	by	12 per cent			to	US$2.0 billion			1
49	loan impairment charges	rose	by	18 per cent			to	US$616 million			1
55	loan impairment charges	rose	by	15 per cent			to	US$519 million			1
	n	v	prep	num	prep	n	prep	num	prep	n	
3	the thing that moves	move-ment	hinge	amount before movement	hin-ge	time before move-ment	hin-ge	amount after movement	hin-ge	time after move-ment	5
2	the group's employee engagement score	rose	from	67 per cent	in	2008	to	71 per cent	in	2009	1
3	the unemployment rate	rose	from	4.3 per cent	in	Decem-ber 2008	to	a record high of 5.7 per cent	in	July 2009	1
72	the unemployment rate	rose	from	3.8 per cent	in	January 2008	to	4.4 per cent	by	the year-end	1
74	the unemployment rate	rose	from	4.9 per cent	in	January	to	a 15-year high of 7.2 per cent	in	Decem ber 2008	1
77	the unemployment rate	rose	from	a level of 6.8 per cent	in	Decem-ber 2008	to	an eleven year high of 8.7 per cent	in	August 2009	1

Appendix 8 Four local grammatical patterns of *increase/HK$#/million* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

1	n			prep	num	prep	n/num	
	movement			hinge	amount of movement	hinge	amount before movement	14
11	*an*		*increase*	*of*	*HK$380 million, or 7%,*	*over*	*that for the previous financial year*	1
18	*an*		*increase*	*of*	*HK$1,553 million, or 59%,*	*over*	*that for the previous financial year*	1
19	*an*		*increase*	*of*	*HK$398 million, or 18%,*	*over*	*that for the previous financial year*	1
20	*an*		*increase*	*of*	*HK$425 million, or 11%,*	*over*	*that for the previous financial year*	1
21	*an*		*increase*	*of*	*HK$170 million, or 6%,*	*over*	*that for the previous financial year*	1
22	*an*		*increase*	*of*	*HK$880 million, or 51%,*	*over*	*that for the previous financial year*	1
23	*an*		*increase*	*of*	*HK$2,650 million, or 68%,*	*over*	*that for the previous financial year*	1
26	*an*		*increase*	*of*	*HK$401 million, or 42%,*	*over*	*that of the previous financial year*	1
29	*an*		*increase*	*of*	*HK$22 million, or 52%,*	*over*	*that for the previous financial year*	1
36	*an*		*increase*	*of*	*81 per cent*	*from*	*last year's HK$14,151 million*	1
62	*an*		*increase*	*of*	*4.5%*	*over*	*the HK$415,254 million at the end of 2008*	1
70	*an*		*increase*	*of*	*HK$434 million, or 16%,*	*over*	*that for the previous financial year*	1
75	*an*		*increase*	*of*	*HK$222 million, or 34%,*	*over*	*that for the previous financial year*	1
76	*an*		*increase*	*of*	*HK$169 million, or 62%,*	*over*	*that for the previous financial year*	1
2	n			prep	num			
	movement			hinge	amount of movement			10

24	*an*		*increase*	*of*	*HK$29 million or 23%*		1
34	*the*		*increase*	*of*	*HK$3,018 million or 1.4%*		1
48	*an*		*increase*	*of*	*HK$7,624 million*		1
51	*an*		*increase*	*of*	*HK$16 million*		1
52	*an*		*increase*	*of*	*HK$290 million*		1
53	*an*		*increase*	*of*	*HK$1,849 million*		1
59	*an*		*increase*	*of*	*HK$5 million*		1
72	*an*		*increase*	*of*	*HK$2,534 million, or 2,445.1%*		1
89	*an*		*increase*	*of*	*HK$872.5 million*		1
102	*an*		*increase*	*of*	*HK$1 million*		1
3	n movement		prep hinge	n the thing that moves	prep hinge	num amount of movement	4
35	*the*		*increase*	*in*	*fee income from stock broking*	*by*	*HK$388 million, or 23.9%*	1
99	*the*		*increase*	*in*	*operating profit*	*of*	*HK$12,580 million*	1
115	*an*		*increase*	*in*	*the share of profits from HKCG*	*of*	*HK$218 million*	1
121	*an*		*increase*	*in*	*administrative expenses for the construction segment*	*of*	*HK$6 million*	1
4	num amount of movement	n movement	prep hinge	n the thing that moves			3
46 104	*a HK$462 million*	*net increase*	*in*	*funding swap income*			2
40	*a HK$140 million*	*increase*	*in*	*net surplus on property revaluation*			1
Total frequency							31

Appendix 9 Six local grammatical patterns of *increase/per/cent* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

1	num			n	prep	n			
	amount of movement			movement	hinge	the thing that moves			14
2			*10 per cent*	*increase*	*in*	*US dollar exchange rate*			1
13	*a*		*25.2 per cent*	*increase*	*in*	*the total number of Prestige Banking customers*			1
15	*a*		*9.1 per cent*	*increase*	*in*	*cardholder spending*			1
26	*the*		*25.7 per cent*	*increase*	*in*	*stock trading turnover*			1
40	*a*		*54.5 per cent*	*increase*	*in*	*the number of accounts enrolled in the e-Statement service*			1
43	*a*		*26 per cent*	*increase*	*in*	*deposits*			1
45	*the*		*103.1 per cent*	*increase*	*in*	*corporate life insurance income*			1
48	*a*		*41.5 per cent*	*increase*	*in*	*loan interest income*			1
50	*a*		*23 per cent*	*increase*	*in*	*the value of gross written insurance premiums generated through e-channels*			1
54	*a*		*10 per cent*	*increase*	*in*	*impairment allowances on collectively assessed loans and advances in North America*			1
57	*a*		*35.9 per cent*	*increase*	*in*	*deposits*			1
58	*a*		*20.4 per cent*	*increase*	*in*	*the total number of customers*			1
59	*a*		*20.1 per cent*	*increase*	*in*	*operating profit*			1
61	*a*		*6.8 per cent*	*increase*	*in*	*profit before tax*			1
2	n				prep	num			
	movement				hinge	amount of movement			5
65	*an*			*increase*	*of*	*21 per cent*			1
69	*an*			*increase*	*of*	*11 per cent*			1
70	*an*			*increase*	*of*	*33 per cent*			1

#									Freq
71	*an*			*increase*	*of*	*17 per cent*			1
75	*an*			*increase*	*of*	*US$7.0 billion or 201 per cent*			1
3	**n**			**movement**	**prep** **hinge**	**num** **amount of movement**	**prep** **hinge**	**n** **time before movement**	**4**
63	*an*			*increase*	*of*	*6 per cent*	*over*	*2008*	1
64	*an*			*increase*	*of*	*7 per cent*	*on*	*2008*	1
72	*an*			*increase*	*of*	*18.5 per cent*	*over*	*the previous year*	1
74	*an*			*increase*	*of*	*more than 38 per cent*	*over*	*2008*	1
4	**num** **amount of movement**			**n** **movement**			**prep** **hinge**	**n** **time of movement**	**4**
7	*a*		*0.5 per cent*	*increase*			*in*	*2008*	1
22	*a*		*2.2 per cent*	*increase*			*during*	*2008*	1
31	*a*		*0.4 per cent*	*increase*			*during*	*2008*	1
51	*a*		*52 per cent*	*increase*			*during*	*the year*	1
5	**num** **amount of movement**			**n** **movement**	**prep** **hinge**	**n** **the thing that moves**	**prep** **hinge**	**n** **time of movement**	**3**
35	*a*		*29.3 per cent and 236.1 per cent*	*increase*	*in*	*turnover*	*in*	*the second half of 2009*	1
42	*a*		*54.5 per cent*	*increase*	*in*	*the number of accounts switching to the e-statement service*	*during*	*the year*	1
44	*a*		*25.5 per cent*	*increase*	*in*	*the number of Prestige Banking customers*	*in*	*2009*	1
6	**adj** **modifier of movement**		**num** **amount of movement**	**n** **movement**	**prep** **hinge**	**n** **the thing that moves**			**2**
47	*an*	*impressive*	*11.7 per cent*	*increase*	*in*	*residential mortgage lending to individuals*			1
60	*an*	*underlying*	*37.8 per cent*	*increase*	*in*	*lending to customers*			1
Total frequency									32

Appendix 10 Three local grammatical patterns of *fell/per/cent* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

	n	v	prep	num			
1	the thing that moves	movement	hinge	amount of movement			21
2	*net interest income*	*fell*	*by*	*11 per cent*			1
4	*fourth quarter GDP*	*fell*	*by*	*3.4 per cent*			1
8	*time deposits*	*fell*	*by*	*35.8 per cent*			1
9	*underlying operating expenses excluding goodwill impairment*	*fell*	*by*	*4 per cent*			1
13	*employee compensation and benefits*	*fell*	*by*	*4 per cent*			1
16	*branch counter transactions*	*fell*	*by*	*14.6 per cent*			1
18	*operating expenses*	*fell*	*by*	*4 per cent*			1
19	*trading assets*	*fell*	*by*	*6 per cent*			1
21	*loans and advances to customers*	*fell*	*by*	*9 per cent*			1
22	*loan impairment charges*	*fell*	*by*	*3 per cent*			1
23	*net fee income*	*fell*	*by*	*4 per cent*			1
24	*net interest income*	*fell*	*by*	*6 per cent*			1
25	*net fee income*	*fell*	*by*	*9 per cent*			1
29	*net fee income*	*fell*	*by*	*7 per cent*			1
36	*profit from associates and joint ventures in the region*	*fell*	*by*	*38 per cent*			1
37	*net insurance claims incurred and movement in liabilities to policyholders*	*fell*	*by*	*22 per cent*			1
38	*underlying pre-tax profits*	*fell*	*by*	*34 per cent*			1
43	*other operating income*	*fell*	*by*	*29 per cent*			1
44	*net insurance claims and movement in liabilities to policyholders*	*fell*	*by*	*40 per cent*			1
51	*operating expenses*	*fell*	*by*	*2.0 per cent*			1
53	*non-interest income*	*fell*	*by*	*15.4 per cent*			1
	n	v	prep	num	prep	num	
2	the thing that moves	movement	hinge	amount of movement	hinge	amount after movement	9

	n	v	prep	num	prep	n	
11	net interest income	fell	by	19.4 per cent	to	HK$2,162 million	1
14	other personal lending in the US	fell	by	23 per cent	to	US$69 billion	1
30	the pre-tax loss	fell	by	52 per cent	to	US$4.1 billion	1
31	loan impairment charges and other credit risk provisions	fell	by	35 per cent	to	US$0.5 billion	1
34	reported pre-tax profits in 2008	fell	by	62 per cent	to	US$9.3 billion	1
40	loan impairment charges	fell	by	40 per cent	to	US$2.1 billion	1
41	reported net trading income	fell	by	33 per cent	to	US$6.6 billion	1
45	loan impairment charges in US consumer finance	fell	by	12 per cent	to	US$13.5 billion	1
46	reported pre-tax profits in 2009	fell	by	24 per cent	to	US$7.1 billion	1
3	n the thing that moves	v movement	prep hinge	num amount of movement	prep hinge	n time of movement	4
17	on-demand maintenance orders	fell	by	5 per cent	during	the year	1
20	total personal lending	fell	by	6 per cent	in	2009	1
28	gross domestic product ('GDP')	fell	by	5 per cent	in	2009	1
39	the Standard & Poor's S&P 500 stock market index	fell	by	38 per cent	during	the year	1

Appendix 11 Four local grammatical patterns of *declined/per/cent* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

	n	v	prep	num					Freq
1	the thing that moves	movement	hinge	amount of movement					17
9	net interest income for the year	declined	by	5.8 per cent					1
11	gains less losses from financial investments	declined	by	24 per cent					1
14	fee income	declined	by	23 per cent					1
17	pre-tax profit	declined	by	35 per cent					1
18	loan impairment charges	declined	by	41 per cent					1
23	derivative assets	declined	by	52 per cent					1
24	net earned insurance premiums	declined	by	21 per cent					1

	n	v	prep	num		prep	num		Freq
26	net trading income	declined	by	16 per cent					1
27	net interest income in 2009	declined	by	10 per cent					1
29	underlying total assets	declined	by	11 per cent					1
33	net fee income	declined	by	8 per cent					1
35	net interest income	declined	by	4 per cent					1
46	structured investment products income	declined	by	46.4 per cent					1
47	net interest income	declined	by	5.8 per cent					1
53	net income from trading activities	declined	by	81 per cent					1
55	deposit net interest income	declined	by	36.4 per cent					1
58	staff costs	declined	by	3 per cent					1
	n	v	prep	num		prep	num		Freq
2	the thing that moves	movement	hinge	amount of movement		hinge	amount after movement		16
12	net expense from financial instruments designated at fair value	declined	by	90 per cent		to	US$90 million		1
13	residential mortgage lending balances in the US	declined	by	19 per cent		to	US$66 billion		1
15	net income from financial instruments designated at fair value	declined	by	35 per cent		to	US$192 million		1
16	total revenue	declined	by	19 per cent		to	US$66.2 billion		1
19	loan impairment charges	declined	by	11 per cent		to	US$14.2 million		1
28	net interest income	declined	by	27 per cent		to	US$4.2 billion		1
31	net interest income	declined	by	8 per cent		to	US$3.5 billion		1
36	gross loans and advances	declined	by	9 per cent		to	US$21 billion		1

	n	v	prep	num		prep	num	prep	n	Freq
	to personal customers									
38	*pre-tax profit*	*declined*	*by*	*8 per cent*		*to*	*US$5.0 billion*			1
39	*net fee income*	*declined*	*by*	*7 per cent*		*to*	*US$4.8 billion*			1
44	*treasury's operating profit excluding credit risk provisions*	*declined*	*by*	*3.9 per cent*		*to*	*HK$2,918 million*			1
51	*share of profit in associates and joint ventures*	*declined*	*by*	*84 per cent*		*to*	*US$16 million*			1
52	*new loan impairment allowances*	*declined*	*by*	*7 per cent*		*to*	*US$15.6 billion*			1
56	*releases and recoveries of allowances*	*declined*	*by*	*10 per cent*		*to*	*US$1.4 billion*			1
61	*the proportion of 'medium-satisfactory'*	*declined*	*by*	*one percentage point*		*to*	*12.5 per cent*			1
64	*net interest spread*	*declined*	*by*	*31 basic points*		*to*	*1.84 per cent*			1
3	n	v	prep	num		prep	num	prep	n	Freq
3	the thing that moves	movement	hinge	amount of movement		hinge	amount after movement	hinge	time after move-ment	3
21	*second lien balances, which were all held by HFC Bank Ltd ('HFC') in the UK,*	*declined*	*by*	*17 per cent*		*to*	*US$1.1 billion*	*at*	*31 December 2009*	1
32	*personal lending*	*declined*	*by*	*6 per cent*		*to*	*US$11 billion*	*at*	*31 December 2009*	1
34	*financial instruments on which credit quality has been assessed*	*declined*	*by*	*8 per cent*		*to*	*US$2,216 billion*	*at*	*31 December 2009*	1
4	n	v	prep	num	prep	n	prep	num	prep	n	Freq

	the thing that moves	movement	hinge	amount before movement	hinge	time before move-ment	hinge	amount after movement	hin-ge	time after move-ment	2
6	two months and more delinquencies	declined	from	5.0 per cent	at	31 December 2008	to	4.6 per cent	at	31 December 2009	1
7	the percentage of loans that were 30 days or more delinquent	declined	from	1.8 per cent	at	31 December 2008	to	1.6 per cent	in	2009	1

Appendix 12 Four local grammatical patterns of *decreased/HK$#/million* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

	n	v	prep	num	prep	num		
1	the thing that moves	movement	hinge	amount of movement	hinge	amount after movement		11
2	net interest income	decreased	by	11.0%	to	HK$5,795 million		1
3	the EBIT reported by this operation	decreased	by	37%	to	HK$4,079 million		1
6	turnover	decreased	by	16%	to	HK$1,754 million		1
7	certificates of deposit	decreased	by	48.8%	to	HK$2,812 million		1
15	the Group's net interest income	decreased	by	HK$2,225 million, or 11.0%,	to	HK$17,932 million		1
25	total revenue	decreased	by	2%	to	HK$116,098 million		1
26	hotel operating profit	decreased	by	21%	to	HK$242 million		1
27	logistics revenue	decreased	by	20%	to	HK$3,091 million		1
28	operating expenses	decreased	by	10.7%	to	HK$742		1

	n	v	prep	num	prep	num		
				million				
29	operating profit before impairment allowances	decreased	by	21.6%	to	HK$5,662 million		1
32	classified or impaired loans	decreased	by	approximately HK$369 million, or 17.3%,	to	HK$1,769 million		1
	n	v	prep	num				
2	the thing that moves	movement	hinge	amount of movement				8
4	commission from funds distribution	decreased	by	HK$121 million, or 55.5%				1
10	time, call and notice deposits	decreased	by	HK$30,028 million, or 9.6%				1
11	bills commissions	decreased	by	HK$56 million or 8.2%				1
12	net gains from the disposal of available-for-sale equity securities	decreased	by	HK$485 million, or 75.1 per cent				1
13	placements with banks and other financial institutions maturing between one and twelve months	decreased	by	HK$29,436 million, or 32.8%				1
14	fees and commission expenses	decreased	by	HK$7 million or 0.3%				1
16	net trading income from equity and instruments	decreased	by	HK$93 million or 78.2%				1
18	employee compensation and benefits	decreased	by	HK$74 million, or 2.1 per cent				1
	n	v		num	prep	num		
3	the thing that moves	movement		amount of movement	hinge	amount after movement		4
1	the Group's capital expenditures	decreased		32%	to	total		1

	n	v		num	prep	num	prep	n	
						HK$19,576 million			
21	total earnings before interest expense and finance costs, taxation and minority interests ("EBIT")	decreased		8%	to	HK$43,083 million			1
22	the segment contribution from service operations	decreased		21%	to	HK$1,189.2 million			1
23	the EBIT from this division	decreased		21%	to	HK$10,406 million			1
	n	v		num	prep	num	prep	n	
4	the thing that moves	movement		amount of movement	hinge	amount after movement	hinge	time of movement	2
24	depreciation and amortisation expenses, which includes the depreciation of networks and amortisation of licence fees, content and other rights	decreased		38%	to	HK$9,098 million	in	2009	1
30	the Group's consolidated gross interest expense and other finance costs of subsidiaries, before capitalisation,	decreased		45%	to	total HK$9,889 million	in	2009	1

Appendix 13 Four local grammatical patterns of *declined/US$#/billion* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

	n	v	prep	num		prep	num		Freq
1	the thing that moves	move-ment	hinge	amount of movement		hinge	amount after movement		13
9	loan impairment charges	declined	by	11 per cent		to	US$14.2 billion		1
12	motor vehicle finance balances in the US	declined	by	47 per cent		to	US$5.8 billion		1
13	residential mortgage lending balances in the US	declined	by	19 per cent		to	US$66 billion		1

	n	v	prep	num			prep	num			Freq
22	*gross loans and advances to personal customers*	*declined*	*by*	*9 per cent*			*to*	*US$21 billion*			1
23	*net fee income*	*declined*	*by*	*7 per cent*			*to*	*US$4.8 billion*			1
24	*net interest income*	*declined*	*by*	*8 per cent*			*to*	*US$3.5 billion*			1
25	*new loan impairment allowances*	*declined*	*by*	*7 per cent*			*to*	*US$15.6 billion*			1
26	*pre-tax profit*	*declined*	*by*	*8 per cent*			*to*	*US$5.0 billion*			1
27	*reported net fee income*	*declined*	*by*	*9 per cent*			*to*	*US$20 billion*			1
30	*net interest income*	*declined*	*by*	*27 per cent*			*to*	*US$4.2 billion*			1
32	*releases and recoveries of allowances*	*declined*	*by*	*10 per cent*			*to*	*US$1.4 billion*			1
33	*total revenue*	*declined*	*by*	*19 per cent*			*to*	*US$66.2 billion*			1
34	*other personal lending in the UK*	*declined*	*by*	*11 per cent*			*to*	*US$29 billion*			1
	n	v	prep	num			prep	num			Freq
2	the thing that moves	movement	hinge	amount before movement			hinge	amount after movement			4
10	*two months or more delinquent balances*	*declined*	*from*	*US$2.0 billion*			*to*	*US$1.8 billion*			1
11	*balances*	*declined*	*from*	*US$96 billion*			*to*	*US$78 billion*			1
19	*stated-income mortgage balances in HSBC Finance*	*declined*	*from*	*US$5.7 billion*			*to*	*US$3.9 billion*			1
21	*two months and over delinquent balances*	*declined*	*from*	*US$0.7 billion*			*to*	*US$0.6 billion*			1
3	n	v	prep	num	prep	n	prep	num	prep	n	Fre

	the thing that moves	move-ment	hinge	amount before movement	hinge	time before move-ment	hinge	amount after move-ment	hinge	time after move-ment	q 3
17	mortgage lending	declined	from	US$22 billion	at	31 December 2008	to	US$16 billion	at	31 December 2009	1
18	the negative balance on the available-for-sale reserve	also declined	from	US$20.6 billion	at	31 December 2008	to	US$10.0 billion	at	31 December 2009	1
20	two months and more delinquent balances in the Mortgage Services portfolio	declined	from	US$4.7 billion	in	2008	to	US$4.5 billion	at	31 December 2009	1

	n	v	prep	num		prep	num	prep	n	Freq
4	the thing that moves	movement	hinge	amount of movement		hinge	amount after movement	hinge	time after movement	3
28	personal lending	declined	by	6 per cent		to	US$11 billion	at	31 December 2009	1
29	Financial instruments on which credit quality has been assessed	declined	by	8 per cent		to	US$2,216 billion	at	31 December 2009	1
31	second lien balances, which were all held by HFC Bank Ltd ('HFC') in the UK,	declined	by	17 per cent		to	US$1.1 billion	at	31 December 2009	1

Appendix 14 Three local grammatical patterns of *decreased/per/cent* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

	n	v	prep	num				
1	the thing that moves	movement	hinge	amount of movement				18
6	*deposits by banks*	*decreased*	*by*	*10 per cent*				1
8	*pre-tax profits*	*decreased*	*by*	*9 per cent*				1
9	*salaries and other costs*	*decreased*	*by*	*3.7 per cent*				1
11	*customer account balances*	*decreased*	*by*	*2 per cent*				1
13	*operating expenses*	*decreased*	*by*	*9 per cent*				1
14	*net insurance claims incurred and movement in liabilities to policyholders*	*decreased*	*by*	*5 per cent*				1
15	*net fee income*	*decreased*	*by*	*2 per cent*				1
16	*loan impairment charges*	*decreased*	*by*	*4 per cent*				1
17	*average invested capital*	*decreased*	*by*	*1 per cent*				1
18	*net interest income*	*decreased*	*by*	*10 per cent*				1
19	*loan impairment charges in the second half of 2009*	*decreased*	*by*	*11 per cent*				1
21	*net earned insurance premiums*	*decreased*	*by*	*12 per cent*				1
24	*HSBC's share of profits from Ping An Insurance*	*decreased*	*by*	*43 per cent*				1
26	*gains less losses from financial investments*	*decreased*	*by*	*90 per cent*				1
27	*loan impairment charges*	*decreased*	*by*	*12 per cent*				1
28	*pretax profits*	*decreased*	*by*	*33 per cent*				1
29	*net fee income*	*decreased*	*by*	*14 per cent*				1
31	*general and administrative expenses*	*decreased*	*by*	*3.6 per cent*				1
	n	v	prep	num	prep	num		
2	the thing that moves	movement	hinge	amount of movement	hinge	amount after movement		9
4	*balances*	*decreased*	*by*	*30 per cent*	*to*	*US$2.7 billion*		1
5	*loan impairment charges in US consumer finance*	*decreased*	*by*	*12 per cent*	*to*	*US$13.5 billion*		1
10	*loan impairment charges and other*	*decreased*	*by*	*7 per cent*	*to*	*US$15.7*		1

	credit risk provisions						*billion*		
20	*reported net fee income*	*decreased*	*by*	*12 per cent*	*to*	*US$17.7 billion*			1
22	*net earned insurance premiums*	*decreased*	*by*	*13 per cent*	*to*	*US$390 million*			1
23	*loan impairment charges and other credit risk provisions in Hong Kong*	*decreased*	*by*	*35 per cent*	*to*	*US$500 million*			1
25	*reported net insurance claims incurred and movement in liabilities to policyholders*	*decreased*	*by*	*20 per cent*	*to*	*US$6.9 billion*			1
30	*net earned insurance premiums*	*decreased*	*by*	*17 per cent*	*to*	*US$197 million*			1
35	*net interest margin*	*decreased*	*by*	*46 basis points*	*to*	*1.90 per cent*			1
	n	v			prep	num	prep	n	
3	the thing that moves	movement			hinge	amount after movement	hinge	time after movement	2
32	*two months and more delinquency rates*	*decreased*			*to*	*17.3 per cent*	*at*	*31 December 2009*	1
33	*two months and more delinquency rates*	*decreased*			*to*	*22.7 per cent*	*at*	*31 December 2009*	1

Appendix 15 Four local grammatical patterns of *changes/fair/value* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

		n	prep	n	prep	n	
1		movement	hinge	the thing that moves	hinge	specifications of the thing that moves	23
43 45 50 51 55 56 61			*changes*	*in*	*fair value*	*of*	*longterm debt issued and related derivatives*	10

ID								
66 72 74								
2 38 46 52 73			*changes*	*in*	*fair value*	*of*	*long-term debt issued and related derivatives*	5
9 20 35			*changes*	*in*	*fair value*	*of*	*investment properties*	3
75 76			*changes*	*in*	*the fair value*	*of*	*investment properties*	2
68			*changes*	*in*	*fair value*	*of*	*long-term debt issued*	1
78			*changes*	*in*	*the fair value*	*of*	*issued structured notes and other hybrid instrument liabilities*	1
81		*any*	*changes*	*in*	*the fair value*	*of*	*these financial investments*	1
2			n	prep	n			
2			movement	hinge	the thing that moves			6
29 53 54 69			*changes*	*in*	*fair value*			4
58 70		*other*	*changes*	*in*	*fair value*			2
3	n	prep	n	prep	n	prep	n	
3	share	hinge	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	5
21 25 26 33 47	*the Group's attributable share*	*of*	*changes*	*in*	*fair value*	*of*	*investment properties*	5
4		n	n	prep	n			
4		the thing that	movement	hinge	specifications of the			2

				moves			thing that moves			
14		*fair value*	*changes*	*on*	*long term debt designated at fair value and related derivatives*					1
17		*fair value*	*changes*	*of*	*interest rate swap contracts*					1

Appendix 16 Four local grammatical patterns of *movement/liabilities/net* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

			n	conj	n	prep	n	
1			claims	hinge	movement	hinge	the thing that moves	28
2 5 7 8 10 11 13 14 16 19 20 21 23 24 25 26 27 29 30 31 32 33			*net insurance claims incurred*	*and*	*movement*	*in*	*liabilities to policyholders*	25

#									
35 40 41									
3 4				net insurance claims incurred	and	movement	in	policyholders' liabilities	2
39				net insurance claims	and	movement	in	liabilities to policyholders	1
2	adj	n	prep	n	conj	n	prep	n	
	modifier of movement	movement	hinge	the thing that moves					
	modifier of movement	movement	hinge	claims	hinge	movement	hinge	the thing that moves	7
17 22	a corresponding	increase	in	net insurance claims incurred	and	movement	in	liabilities to policyholders	2
9	an equivalent	decrease	in	'net insurance claims incurred	and	movement	in	liabilities to policyholders'	1
18	a corresponding	decrease	in	'net insurance claims incurred	and	movement	in	liabilities to policyholders'	1
36	a corresponding	increase	in	'net insurance claims	and	movement	in	liabilities to policyholders'	1
37	a corresponding	reduction	in	'net insurance claims	and	movement	in	liabilities to policyholders'	1
38	an equivalent	reduction	in	net insurance claims	and	movement	in	liabilities to policyholders	1
3	det	n	prep	n	conj	n	prep	n	
	movement		hinge	the thing that moves					
	movement		hinge	claims	hinge	movement	hinge	the thing that moves	3
6	the	rise	in	net insurance claims incurred	and	movement	in	policyholders' liabilities	1
12	the	increase	in	net insurance claims incurred	and	movement	in	liabilities to policyholders	1
15	the	reduction	in	net insurance claims incurred	and	movement	in	liabilities to policyholders	1

		adj	n	conj	n	prep	n	
4		comparison	claims	hinge	movement	hinge	the thing that moves	2
28 34		*higher*	*net insurance claims incurred*	*and*	*movement*	*in*	*liabilities to policyholders*	2

Appendix 17 Five local grammatical patterns of *change/fair/value* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

		n			prep	n	prep	n	
1		movement			hinge	the thing that moves	hinge	specifications of the thing that moves	8
8 9 12 14 18				*change*	*in*	*fair value*	*of*	*investment properties*	5
2 23		*the*		*change*	*of*	*net fair value gains (losses)*	*on*	*assets at fair value*	2
21		*the*		*change*	*in*	*fair value*	*of*	*issued debt securities attributable to the Group's own credit spread*	1
	n	prep		n	prep	n	prep	n	
2	profit	hinge		movement	hinge	the thing that moves	hinge	specifications of the thing that moves	3
10 11	*operating profit*	*before*		*change*	*in*	*fair value*	*of*	*investment properties*	2
1	*operating profit*	*after*		*change*	*in*	*fair value*	*of*	*investment properties*	1
3		det	adj	n	prep	n			

Line									Freq
			movement		hinge	the thing that moves			2
15 20		*the*		*change*	*in*	*fair value*			2
	n	prep		n	prep	n			
4	influence of the movement	hinge		movement	hinge	the thing that moves			2
16 17	*gains (losses)*	*on*		*change*	*in*	*fair value*			2
	n	prep	n	n	prep	n			
5	influence of the movement	hinge	the thing that moves	movement	hinge	specifications of the thing that moves			2
4	*the effect*	*of*	*fair value*	*change*	*on*	*investment properties*			1
7	*the loss*	*from*	*fair value*	*change*	*of*	*the aforesaid option contracts*			1

Appendix 18 Five local grammatical patterns of *movements/fair/value* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

Line									Freq
				n	prep	n	prep	n	
1				movement	hinge	the thing that moves	hinge	specifications of the thing that moves	5
20				*movements*	*in*	*fair value*	*of*	*own debt attributable to credit spread*	1
21				*movements*	*in*	*fair value*	*of*	*own debt*	1
22				*movements*	*in*	*the fair value*	*of*	*HSBC's own longterm debt*	1
25				*movements*	*in*	*the fair value*	*of*	*own debt designated at fair value*	1
6				*movements*	*in*	*the level*	*of*	*fair value adjustments*	1
			n	n	prep	n			
2			the thing that moves	movement	hinge	specifications of the thing that moves			3

#									
10			*fair value*	*movements*	*on*	*all other financial instruments designated at fair value and related derivatives*			1
19			*fair value*	*movements*	*on*	*own debt attributable to credit spread*			1
14			*fair value*	*movements*	*across*	*the entire portfolio*			1
3		adj	n	n					3
		modifier	the thing that moves	movement					
4 12		*gross*	*fair value*	*movements*					2
13		*adverse*	*fair value*	*movements*					1
4				n	prep	n			2
				movement	hinge	the thing that moves			
7 8				*movements*	*in*	*fair value*			2
5	n	prep	n	n	prep	n			2
	influence of the movement	hinge	the thing that moves	movement	hinge	specifications of the thing that moves			
16	*the effect*	*of*	*fair value*	*movements*	*in respect of*	*credit spread on own debt*			1
17	*the impact*	*of*	*fair value*	*movements*	*in respect of*	*credit spread changes on HSBC's own debt*			1

Appendix 19 Three local grammatical patterns of *changes/income/interest* in the discourse of economics with linguistic realizations (with line numbers and frequencies)

	n	prep		n	prep	n	prep	n	
1	influence of the movement	hinge		movement	hinge	the thing that moves	hinge	the thing being influenced	4
3	*the impact*	*of*		*changes*	*in*	*volume and interest rates*	*on*	*the Group's interest income and interest expense*	1
10	*the impact*	*of*		*changes*	*in*	*volume*	*on*	*interest income and expense*	1
23	*the potential effect*	*of*		*changes*	*in*	*interest rates*	*on*	*our net interest income and economic value change*	1
24	*the impact*	*of*		*changes*	*in*	*interest rate*	*on*	*interest income and expense*	1
2				n	prep	n			
				movement	hinge	the thing that moves			3
6				*changes*	*in*	*interest income*			1
22				*changes*	*in*	*net interest income*			1
14				*changes*	*in*	*net interest income and net interest expense*			1
3	n	prep		n	prep	n			
	analysis	hinge		movement	hinge	the thing that moves			2
5	*analysis*	*of*		*changes*	*in*	*net interest income and net interest expense*			1
9	*analysis*	*of*		*changes*	*in*	*net interest income*			1

Appendix 20 Three local grammatical patterns of *business/development/group* in corporate governance discourse with linguistic realizations (with line numbers and frequencies)

	v	prep	n	prep	det	n	prep	n	
1	contribute	hinge	method of contribution	hinge	movement		hinge	the thing that moves	3
26	*contribute*	*by way of*	*joint venture, business alliance or other business arrangement*	*to*	*the*	*development and growth*	*of*	*the HHR Group*	1
27	*contributing*	*by way of*	*joint venture, business alliance or other business arrangement*	*to*	*the*	*development and growth*	*of*	*the HTIL Group*	1
28	*contributing*	*by way of*	*joint venture, business alliance or other business arrangement*	*to*	*the*	*development and growth*	*of*	*the HTHKH Group*	1
	n	prep	n	conj	n	n	prep	n	
2	range	hinge	business	hinge	the thing that moves	movement	hinge	the possessor of the thing that moves	2
31	*any area*	*of*	*business*	*or*	*business*	*development*	*of*	*any member of NWSH Group or any Invested Entity*	1
32	*any area*	*of*	*business*	*or*	*business*	*development*	*of*	*any member of the Group or any Invested Entity*	1

	n	prep	n	prep	n	prep	n	n	conj	n	
3	member	hinge	possessor of the member	hinge	range	hinge	the thing that moves	operation	hinge	movement	2
10	*any member*	*of*	*the Group or any Invested Entity*	*in*	*any area*	*of*	*business*	*operation*	*or*	*development*	1
11	*any member*	*of*	*NWSH Group or any Invested Entity*	*in*	*any area*	*of*	*business*	*operation*	*or*	*development*	1

Appendix 21 One local grammatical pattern of *changes/equity/statement* in corporate governance discourse with linguistic realizations (with line numbers and frequencies)

1	n			prep	n	prep	n	
	statement			hinge	movement	hinge	the thing that moves	10
2 3 5 7 8 9 10 11	*the*	*consolidated*	*statement*	*of*	*changes*	*in*	*equity*	8
4	*the*		*statement*	*of*	*changes*	*in*	*equity*	1
6	*the*	*consolidated*	*statement*	*of*	*changes*	*in*	*shareholders' equity*	1

Appendix 22 Six local grammatical patterns of *increase/fair/value* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

1	n			prep	n	prep	n	
	movement			hinge	the thing that moves	hinge	specifications of the thing that moves	16
20 27 30 31 34 37 38 41 42			*increase*	*in*	*fair value*	*of*	*investment properties*	9
7 8 9 10		*(decrease)*	*increase*	*in*	*fair value*	*of*	*investment properties*	4
26	*the*		*increase*	*in*	*fair value*	*of*	*investment properties*	2

#										n
29										
17	*an*			*increase*		*in*	*fair value*	*of*	*properties under construction or development for future use*	1
2	n					prep	n			
2	movement					hinge	the thing that moves			5
25 28				*increase*		*in*	*fair value*			2
58 59				*increase*		*in*	*gains on financial assets at fair value through Profit or loss*			2
53				*increase*	*(decrease)*	*in*	*fair value*			1
3	adj		n			prep	n	prep	n	
3	modifier of movement		movement			hinge	the thing that moves	hinge	specifications of the thing that moves	3
47 50 51	*any subsequent*			*increase*		*in*	*the fair value*	*of*	*such assets*	3
4	adj		n			prep	n			
4	modifier of movement		movement			hinge	the thing that moves			2
40	*the subsequent*			*increase*		*in*	*fair value*			1
35	*the cumulative*			*increase*		*in*	*fair value*			1
5	n	prep	n			prep	n			
5	extent	hinge	movement			hinge	the thing that moves			2
33 36	*the extent*	*of*	*the*	*increase*		*in*	*fair value*			2
6	adj		n			prep	n	prep	n	
6	modifier of movement		movement			hinge	the thing that moves	hinge	the thing to be excluded from the movement	2
46 48	*any subsequent*			*increase*		*in*	*the fair value*	*less*	*costs to sell*	2

Appendix 23 Two local grammatical patterns of *increase/cash/equivalents* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

	adj	n			prep	n	
1	**modifier of movement**	**movement**			**hinge**	**the thing that moves**	**10**
1 2 4 5	*net*	*(decrease)*	*increase*		*in*	*cash and cash equivalents*	4
12 15 16 17	*net*		*increase*	*(decrease)*	*in*	*cash and cash equivalents*	4
3 10	*net*		*increase*		*in*	*cash and cash equivalents*	2
2	**n**				**prep**	**n**	
	movement				**hinge**	**the thing that moves**	**7**
7 13 14			*increase*	*(decrease)*	*in*	*cash and cash equivalents*	3
8 9 11			*increase*		*in*	*cash and cash equivalents*	3
6		*(decrease)*	*increase*		*in*	*cash and cash equivalents*	1

Appendix 24 Three local grammatical patterns of *increase/HK$#/million* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

1	n	v		prep	num			
	the thing that moves	movement		hinge	the amount of movement			5
14	*total equity*	*would*	*increase*	*by*	*HK$61 million*			1
15	*total equity*	*would*	*increase*	*by*	*HK$2,255 million*			1
16	*profit for the year*	*would*	*increase*	*by*	*HK$61 million*			1
18	*the long term business fund liability*	*would*	*increase*	*by*	*approximately HK$637 million*			1
19	*the long term business fund liability*	*would*	*increase*	*by*	*approximately HK$43 million*			1

2		n	prep	n	prep	num	
		movement	hinge	the thing that moves	hinge	the amount of movement	3
11		*an increase*	*in*	*the Group's profit for the year ended 31st December 2009*	*of*	*HK$31 million*	1
21		*the increase*	*in*	*fair value during the year*	*in the amount of*	*HK$311 million*	1
23		*increase*	*in*	*fair value of investment properties net of deferred tax*	*of*	*HK$187 million*	1

3	n	prep	num	prep	n	prep	v	n	prep	num	
	movement	hin-ge	amount of move-ment	hinge	the thing that moves	premise of estimation	movement	the thing that moves	hinge	amount of movement	2
25	*a general increase/ decrease*	*of*	*1%*	*in*	*interest rates,*	*with all other variables held constant,*	*would increase/decrease*	*the Group's post-tax profit and total equity*	*by*	*approxi-mately HK$28 million*	1
22	*an increase/ decrease*	*of*	*100 basis points*	*in*	*interest rates,*	*with all other variables held constant,*	*would decrease/increase*	*the profit before taxation for the year*	*by*	*approxi-mately HK$265 million*	1

Appendix 25 Two local grammatical patterns of *increased/HK$#/million* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

	n			v		prep	num				
1	the thing that moves			movement		hinge	amount of movement				5
4	*total liabilities*			*would have*	*increased*	*by*	*HK$3,261 million or 0.9%*				1
5	*total liabilities*			*would have*	*increased*	*by*	*HK$1,965 million or 0.5%*				1
6	*total assets*			*would have*	*increased*	*by*	*HK$899 million or 0.1%*				1
7	*total assets*			*would have*	*increased*	*by*	*HK$2,161 million or 0.3%*				1
12	*fair value gain recognised for the year in the consolidated income statement*			*will be*	*increased*	*by*	*HK$165.1 million*				1
2	n	conj	n	v		prep	num	conj	num	adv	
2	the thing that moves	hinge	the thing that moves	movement		hinge	amount of movement	hinge	amount of move-ment	method of presen-tation	2
9	*the Company's share capital*	*and*	*share premium account*	*were*	*increased*	*by*	*HK$408 million*	*and*	*HK$13,373 million*	*respec-tively*	1
10	*the Group's revenue*	*and*	*profit before taxation*	*would have been*	*increased*	*by*	*HK$2,906.0 million*	*and*	*HK$294.2 million*	*respec-tively*	1

Appendix 26 Four local grammatical patterns of *decline/fair/value* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

	adj	n	prep	n	prep	n	prep	
1	modifier of the movement	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	extent of the movement	9
13 14 15 16	*a significant or prolonged*	*decline*	*in*	*the fair value*	*of*	*the security*	*below its cost*	4
7 8	*a significant or prolonged*	*decline*	*in*	*the fair value*	*of*	*an investment in an equity instrument*	*below its cost*	2
9	*a significant or prolonged*	*decline*	*in*	*the fair value*	*of*	*the investment*	*below its cost*	1
10	*a significant or prolonged*	*decline*	*in*	*the fair value*	*of*	*an equity investment*	*below its cost*	1
12	*a significant or prolonged*	*decline*	*in*	*the fair value*	*of*	*the asset*	*below its cost*	1
	adj	n	prep	n			prep	
2	modifier of the movement	movement	hinge	the thing that moves			extent of the movement	3
4	*a significant or prolonged*	*decline*	*in*	*fair value*			*below cost*	1
11	*a significant or prolonged*	*decline*	*in*	*the fair value*			*below its cost*	1
20	*significant or prolonged*	*decline*	*in*	*their fair value*			*below cost*	1
3	det adj	n	prep	n	prep	n		
	modifier of the movement	movement	hinge	the thing that moves	hinge	specifications of the thing that moves		3
6 18	*a subsequent*	*decline*	*in*	*the fair value*	*of*	*the instrument*		2
17	*a significant or prolonged*	*decline*	*in*	*the fair value*	*of*	*equity instrument investments*		1

	n	prep	n	prep	n		
4	movement	hinge	the thing that moves	hinge	specifications of the thing that moves		3
5 19	*the*	*decline*	*in*	*the fair value*	*of*	*the financial asset*		2
1	*a*	*decline*	*in*	*the fair value*	*of*	*an available-for-sale financial asset*		1

Appendix 27 Four local grammatical patterns of *reduced/carrying/amount* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

	n	prep	n	v (passive)		prep	n	
1	the thing that moves	hinge	specifications of the thing that moves	movement (passive)		hinge	method of the movement	8
14 15 16	*the carrying amount*	*of*	*the asset*	*is*	*reduced*	*through*	*the use of an allowance account*	3
12 13	*the carrying amount*	*of*	*the assets*	*is*	*reduced*	*through*	*the use of an allowance account*	2
5	*the carrying amount*	*of*	*impaired loans on the statement of financial position*	*is*	*reduced*	*through*	*the use of an allowance account*	1
8	*the carrying amount*	*of*	*impaired loans on the balance sheet*	*is*	*reduced*	*through*	*the use of impairment allowance accounts*	1
9	*the carrying amount*	*of*	*loans and receivables*	*is*	*reduced*	*through*	*the use of an allowance account*	1
	n	prep	n	v (passive)				
2	the thing that moves	hinge	specifications of the thing that moves	movement (passive)				2
10 11	*the total carrying amount*	*of*	*such investments*	*is*	*reduced*			2
	n	prep	n	v (passive + negative)				
3	the thing that moves	hinge	specifications of the thing that moves	movement (passive + negative)				2

6 7	*the carrying amount*	*of*	*the investment in the investee*	*will not be*	*reduced*			2
4	**n**			**v (passive)**		**prep**	**n**	
	the thing that moves			**movement (passive)**		**hinge**	**amount after movement**	**2**
17 18	*the carrying amount*			*is*	*reduced*	*to*	*the estimated recoverable amount*	2

Appendix 28 One local grammatical pattern of *decreases/amount/impairment* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

1	**n**	**prep**	**n**	**v**	
	the thing that moves	**hinge**	**specifications of the thing that moves**	**movement**	**10**
4 5 6 7 8 9 10	*the amount*	*of*	*an impairment loss*	*decreases*	7
2 3	*the amount*	*of*	*the impairment loss*	*decreases*	2
1	*the amount*	*of*	*allowance for impairment losses*	*decreases*	1

Appendix 29 One local grammatical pattern of *decrease/cash/flows* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

1	**adj**	**n**	**prep**	**n**	**prep**	**n**	**Freq**
	modifier of movement	**movement**	**hinge**	**the thing that moves**	**hinge**	**reason of movement**	**9**
7 13	*a measurable*	*decrease*	*in*	*the estimated future cash flows*	*from*	*a portfolio of loans*	2
8 14	*a measurable*	*decrease*	*in*	*the estimated future cash flows*	*from*	*such loans and advances*	2
9 11	*a measurable*	*decrease*	*in*	*the estimated future cash flows*	*from*	*a group of financial assets*	2

| 10 12 | a measurable | decrease | in | the estimated future cash flows | from | a portfolio of loans and advances | 2 |
| 15 | a measurable | decrease | in | the estimated future cash flows | from | such debt securities | 1 |

Appendix 30 One local grammatical pattern of *decrease/event/objectively* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

1	n	v	adv	prep	n	
	movement	connection	nature of connection	hinge	reason of movement	10
6 7 8 9 10	the decrease	can be linked	objectively	to	an event occurring after the impairment loss was recognised	5
1 2 3 5	the decrease	can be related	objectively	to	an event occurring after the impairment was recognised	4
4	the decrease	can be related	objectively	to	an event occurring after the impairment loss was recognised	1

Appendix 31 Six local grammatical patterns of *changes/fair/value* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

1			n	prep	n	prep	n	
			movement	hinge	the thing that moves	hinge	specifications of the thing that moves	16
63 68			changes	in	the fair value	of	the hedged items	2
226 258			changes	in	the fair value	of	monetary securities denominated in foreign currency	2
159 180			changes	in	fair value	of	available-for-sale equity securities	2
47 153		any	changes	in	the fair value	of	the hedged assets or liabilities that are	2

								attributable to the hedged risk	
26				*changes*	*in*	*fair value*	*of*	*investment properties*	1
32				*changes*	*in*	*the fair value*	*of*	*monetary investment denominated in a foreign currency*	1
169				*changes*	*in*	*fair value*	*of*	*securities*	1
203				*changes*	*in*	*fair value*	*of*	*assets of the Schemes*	1
233				*changes*	*in*	*the fair value*	*of*	*available for sale financial assets*	1
238				*changes*	*in*	*the fair value*	*of*	*the "financial assets at fair value through profit or loss" category*	1
244				*changes*	*in*	*the fair value*	*of*	*available-for-sale financial assets and financial assets at fair value through profit or loss*	1
254				*changes*	*in*	*the fair value*	*of*	*monetary and non-monetary investment classified as available-for-sale*	1
2			n		prep	n			
			movement		hinge	the thing that moves			8
33 62 114 198 204				*changes*	*in*	*fair value*			5
166 190			*the*	*changes*	*in*	*fair value*			2
115				*changes*	*in*	*their fair value*			1
3	n	prep	n		prep	n	prep	n	

	n	prep	n	prep	n	prep	n	
	influence of the movement	hinge	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	3
69	all gains and losses	from	changes	in	the fair value	of	financial assets and liabilities designated at fair value	1
85	gains and losses	from	changes	in	the fair value	of	such assets	1
214	all gains and losses	from	changes	in	the fair value	of	financial assets and financial liabilities held for trading	1
	n	prep	n	prep	n			
4	influence of the movement	hinge	movement	hinge	the thing that moves			3
186 211	gains	from	changes	in	fair value			2
80	any gains or losses	from	changes	in	fair value			1
	n	prep	n	prep	n	prep	n	
5	portion of the movement	hinge	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	2
248 251	the effective portion	of	changes	in	the fair value	of	derivatives that are designated and qualify as cash flow hedges	2
			n	n	prep	n		
6			the thing that moves	movement	hinge	specifications of the thing that moves			2
116			fair value	changes	of	available for sale investment securities			1
142			fair value	changes	of	financial instruments at fair value through profit or loss			1

Appendix 32 Eight local grammatical patterns of *change/fair/value* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

	n				prep	n	prep	n	
1	movement				hinge	the thing that moves	hinge	specifications of the thing that moves	**20**
37 41 42 52 54 55 74 75 76 78 80 91				*change*	*in*	*fair value*	*of*	*investment properties*	12
44 63 82				*change*	*in*	*fair value*	*of*	*available-for-sale financial assets*	3
93 96				*change*	*in*	*fair value*	*of*	*cash flow hedges*	2
2		*a*		*change*	*in*	*the fair value*	*of*	*a financial asset which is classified as "available-for-sale"*	1
81		*the*		*change*	*in*	*fair value*	*of*	*the hedging instrument that is recognised directly in equity*	1
102				*change*	*in*	*the fair value*	*of*	*cash flow hedges of borrowings*	1
	n	prep	n		prep	n	prep	n	
2	profit	hinge	movement		hinge	the thing that moves	hinge	specifications of the thing that moves	**3**
61 64	*operating profit*	*before*		*change*	*in*	*fair value*	*of*	*investment properties*	2
14	*operating profit*	*after*		*change*	*in*	*fair value*	*of*	*investment properties*	1

#									
3			adj	n	prep	n	prep	n	
			modifier of the movement	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	2
15			*net*	*change*	*in*	*fair value*	*of*	*other financial instruments designated at fair value*	1
40		*the*	*total*	*change*	*in*	*fair value*	*of*	*these instruments*	1
4				n	prep	n			
				movement	hinge	the thing that moves			2
26		*the*		*change*	*in*	*the fair value*			1
88				*change*	*in*	*fair value*			1
5			adj	n	prep	n			
			modifier of movement	movement	hinge	the thing that moves			2
45		*the*	*initial*	*change*	*in*	*fair value*			1
46		*the*	*entire initial*	*change*	*in*	*fair value*			1
6	num	prep	n		prep	n			
	portion of the movement	hinge	movement		hinge	the thing that moves			2
34 35	*10 per cent*	*of*	*change*		*in*	*fair value*			2
7	n	prep	adj	n	prep	n	prep	n	
	portion of the movement	hinge	modifier of movement	movement	hinge	the thing that moves	hinge	specifications of the thing that moves	2
105	*the effective portion*	*of*	*the cumulative net*	*change*	*in*	*the fair value*	*of*	*the hedging instruments used in cash flow hedges*	1
106	*the effective portion*	*of*	*the cumu-lative net*	*change*	*in*	*the fair value*	*of*	*hedging instruments used in cash flow hedges*	1
8	n	prep		n	prep	n	adj	n	
	amount of movement	hinge		movement	hinge	the thing that moves	hinge	reason of the movement	2
97	*the cumulative amount*	*of*		*change*	*in*	*fair value*	*attribu-table to*	*changes in credit risk*	1
99	*the cumulative amount*	*of*	*the*	*change*	*in*	*fair value*	*attribu-table to*	*changes in credit risk*	1

Appendix 33 Four local grammatical patterns of *changes/equity/statement* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

1				n	prep	n	prep	n	
1				statement	hinge	movement	hinge	the thing that moves	31
1 40 50 51 54 68 74 78 82 85 86 88 95 97 98				*consolidated statement*	*of*	*changes*	*in*	*equity*	15
44 46 48 56 62 63 69 71 75				*the consolidated statement*	*of*	*changes*	*in*	*equity*	9
14 16				*the statement*	*of*	*changes*	*in*	*equity*	2
29 57				*statement*	*of*	*changes*	*in*	*equity*	2
80				*a revised*	*of*	*changes*	*in*	*equity*	2

#													
96				*consolidated statement*									
94				*the statement*	*of*	*changes*	*in*	*shareholders' equity*					1
2	n		v	prep	n	prep	n	prep	n				
2	balances		reference	hinge	statement	hinge	movement	hinge	the thing that moves				2
11 12	*The reconciliation between the opening and closing balances of each component of the Group's consolidated equity*		*is set out*	*in*	*the consolidated statement*	*of*	*changes*	*in*	*equity*				2
3	adj		n	prep	n	v	prep	n					
3	modifier of movement		movement	hinge	the thing that moves	reference	hinge	statement					2
26 28	*all non-owner*		*changes*	*in*	*equity*	*are presented*	*in*	*the consolidated statement of comprehensive income*					2
4	adj	n	prep	n	v	prep	n	n	prep	n	prep	n	
4	modifier of movement	movement	hinge	the thing that moves	reference	hinge	modifier of movement	movement	hinge	the thing that moves	hinge	statement	2
21 22	*'non-owner*	*changes*	*in*	*equity'*	*to be presented*	*separately from*	*owner*	*changes*	*in*	*equity*	*in*	*a statement of compre-hensive income*	2

Appendix 34 Eight local grammatical patterns of *changes/income/statement* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

1		n		prep	n	v (passive)	prep	n	
		movement		hinge	the thing that moves	reference	hinge	statement	16
87 89			*changes*	*in*	*fair value*	*are included*	*in*	*income statement*	2
92 95			*changes*	*in*	*fair value*	*recognised*	*in*	*the income statement*	2
4			*changes*	*in*	*fair values*	*are recorded*	*in*	*the statement of comprehensive income*	1
30			*changes*	*in*	*their fair value*	*are recognised immediately*	*in*	*the income statement*	1
88			*changes*	*in*	*fair value*	*recorded*	*in*	*the income statement*	1
99			*changes*	*in*	*the fair value*	*recognised*	*in*	*the income statement*	1
101			*changes*	*in*	*fair value*	*are recognised*	*in*	*the income statement*	1
102			*changes*	*in*	*the fair value*	*taken*	*through*	*the income statement*	1
105			*changes*	*in*	*fair values*	*are recognised*	*in*	*the income statement*	1
107			*changes*	*in*	*the fair value*	*are included*	*in*	*the income statement*	1
123			*changes*	*in*	*the estimates which affect the value of PVIF*	*are reflected*	*in*	*the income statement*	1
25		*any*	*changes*	*in*	*fair value*	*are reported directly*	*in*	*the income statement*	1
122		*any*	*changes*	*in*	*the liability relating to financial guarantees*	*are taken*	*to*	*the income statement*	1
106		*the*	*changes*	*in*	*fair value*	*being recognised*	*in*	*the income statement*	1
2		n		prep	n	prep	n	v (passive)	prep	n

#															
					movement	hinge	the thing that moves	hin-ge	specifications of the thing that moves	reference	hinge	statement			3
116 130					changes	in	fair values	of	investment properties	are recorded	in	the income statement			2
125					changes	in	carry-ing a-mount	of	these insurance liabilities	are recognised	in	the income statement			1
3	n			prep	n	prep	n			v (passive)	prep	n			
	influence of the movement			hinge	movement	hinge	the thing that moves			reference	hinge	statement			3
97 98	any gains and losses			from	changes	in	fair value			are recognised	in	the income statement			2
3	any gains or losses			from	changes	in	fair value			are recognised	in	the statement of comprehensive income			1
4	adj	n	prep	n	v	prep	n			n	prep	n	prep	n	
	modifier of move-ment	move-ment	hin-ge	the thing that moves	reference	hinge	modifier of movement			movement	hinge	the thing that moves	hin-ge	state-ment	3
5 6 7	'non-owner	changes	in	equity'	to be presented	sepa-rately from	owner			changes	in	equity	in	a state-ment of compre-hensive income	3
5				n						v (passive)	prep	n			
				movement						reference	hinge	statement			2
1				all	changes					included	in	administrative expenses in the consolidated statement of comprehensive income			1
82					changes					recognised	in	the income statement			1
6				n	n					v (passive)	prep	n			
				the	movement					reference	hinge	statement			2

Line									Freq
		thing that moves							
18		*fair value*	*changes*			*recognised*	*in*	*the income statement*	1
110		*fair value*	*changes*			*are reported*	*in*	*"Net trading gains' in the income statement*	1
7		adj	n	prep	n	v (passive)	prep	n	2
		modifier of movement	movement	hinge	the thing that moves	reference	hinge	statement	
124		*subse-quent*	*changes*	*in*	*fair value included in "Net trading gains"*	*are recognised*	*in*	*the income statement*	1
131		*all non-owner*	*changes*	*in*	*equity*	*are presented*	*in*	*the consolidated statement of comprehensive income*	1
8		n	n			v (passive)	prep	n	2
		the thing that moves	movement			transference	hinge	statement	
83 84		*fair value*	*changes*			*transferred*	*from (to)*	*income statement*	2

Appendix 35 Three local grammatical patterns of *changes/interest/rates* in the accounting discourse with linguistic realizations (with line numbers and frequencies)

1		n	prep	n			
		movement	hinge	the thing that moves			18
13 14 16 20		*changes*	*in*	*market interest rates*			10

29 31 32 34 35 36						
8 15 17		*changes*	*in*	*interest rates*		3
27 28		*changes*	*in*	*interest rates, exchange rates or equity prices*		2
18		*changes*	*in*	*currency rates or interest rates*		1
38		*changes*	*in*	*the level of interest rates*		1
40		*changes*	*in*	*foreign exchange and interest rates as well as equities and commodities prices*		1
2	adj	n	prep	n		
	modifier of movement	movement	hinge	the thing that moves		3
2 3	*expected*	*changes*	*in*	*currency rates, interest rates, equity prices or other market parameters*		2
33	*stressful*	*changes*	*in*	*market interest rates*		1
3		n	prep	n	v	n
		movement	hinge	the thing that moves	influence	the thing being influenced	3
6		*changes*	*in*	*market interest rates*	*only affect*	*interest income or expense in relation to fixed rate financial instruments*	1
30		*changes*	*in*	*market interest rates*	*affect*	*the interest income or expense of floating rate financial instruments*	1
37		*changes*	*in*	*market interest rates*	*affect*	*the interest income or expense of non-derivative variable-interest financial instruments*	1

Appendix 4.36C Local grammatical patterns of upward movement in public relations discourse

1	*the thing that moves*	*movement*	*hinge*	*amount of movement*	*hinge*	*amount after movement*		**10**
	n	v	prep	num	prep	num		
	Group turnover for 2009	increased	by	10%	to	HK$17,553 million		
2		*movement*	*hinge*	*amount of movement*	*hinge*	*time before movement*		**6**
		n	prep	num	prep	n		
		an increase	of	31 per cent	over	2008		
3		*movement*	*hinge*	*amount of movement*	*hinge*	*amount before movement*		**3**
		n	prep	num	prep	num		**2**
		increase	of	81 per cent	from	last year's HK$14,151 million		
		n	prep	num	prep	n		**1**
		increase	of	HK$18,828 million	over	the position at the end of 2008		
4		*movement*	*hinge*	*amount of movement*				**3**
		n	prep	num				
		an increase	of	HK$872.5 million				
5		*movement*	*hinge*	*the thing that moves*	*hinge*	*place of movement*		**3**
		n	prep	n	prep	n		
		the development	of	RMB bond business	in	Hong Kong		
6	*the thing that moves*	*movement*	*hinge*	*place of movement*				**3**
	n	n	prep	n				**2**
	sports	development	in	Hong Kong				
	det / adj	n	prep	n				**1**

the	economic and social	development	of	Mainland China and Hong Kong					
7 *the thing that moves*		*movement*	*hinge*	*amount of movement*	*hinge*	*amount after movement*	*hinge*	*time after movement*	3
n		v	prep	num	prep	num	prep	n	
net assets employed by the Aviation Division		increased	by	HK$4,638 million	to	HK$21,654 million	at	31st December 2009	
8 *amount of movement*		*movement*	*hinge*	*the thing that moves*	*hinge*	*the amount after movement*			2
det	num	n	prep	n	prep	num			
a	10%	increase	in	recurring profit	to	HK$5,313 million			
9 *modifier of movement*		*movement*	*hinge*	*the thing that moves*	*hinge*	*place of movement*			2
det	adj	n	prep	n	prep	n			
the	sustainable	development	of	its various businesses	in	Hong Kong and the Mainland			
10 *the thing that moves*		*movement*	*amount of movement*	*hinge*	*amount after movement*				2
n		v	num	prep	num				
profit attributable to equity holders		increased	14.8%	to	HK$547.3 million				
11 *the thing that moves*		*movement*	*hinge*	*amount of movement*	*hinge*	*time of movement*	*hinge*	*amount after movement*	2
n		v	prep	num	prep	n	prep	num	
net debt		increased	by	HK$1,235 million	during	the year	to	HK$31,681 million	
Total frequency									39

Table 4.36D Combined Local Grammatical Patterns of the phraseologies of upward movement in public relations discourse

	the thing that moves	*movement*	*(hinge)*	*amount of movement*	*(hinge*	*time of movement)*	*hinge*	*amount after movement*	*(hinge*	*time after movement)*	
	n	v	(prep)	num	(prep	n)	prep	num	(prep	n)	
1	Group turnover for 2009	increased	by	10%			to	HK$17,553 million			17 43.59%
	net assets employed by the Aviation Division	increased	by	HK$4,638 million			to	HK$21,654 million	at	31st December 2009	
	profit attributable to equity holders	increased		14.8%			to	HK$547.3 million			
	net debt	increased	by	HK$1,235 million	during	the year	to	HK$31,681 million			
2		*movement*	*hinge*	*amount of movement*	*(hinge*	*time before movement/ amount before movement)*					12 30.77%
		n	prep	num	(prep	n/num)					
		an increase	of	31 per cent	over	2008					
		an increase	of	HK$872.5 million							
		increase	of	81 per cent	from	last year's HK$14,151 million					
		increase	of	HK$18,828 million	over	the position at the end of 2008					
3	*(modifier of movement)*	*movement*	*hinge*	*the thing that moves*	*hinge*	*place of movement*					5 12.82%
	(det adj)	n	prep	n	prep	n					
		the	of	RMB bond	in	Hong Kong					

#								Freq
			development		business			
	the	sustainable	development	of	its various businesses	in	Hong Kong and the Mainland	
4	*the thing that moves*		*movement*	*hinge*	*place of movement*			3 7.69%
	n		n	prep	n			2 5.13%
	sports		development	in	Hong Kong			
	det	adj	n	prep	n			1 2.56%
	the	economic and social	development	of	Mainland China and Hong Kong			
5	*amount of movement*		*movement*	*hinge*	*the thing that moves*	*hinge*	*the amount after movement*	2 5.13%
	det	num	n	prep	n	prep	num	
	a	10%	increase	in	recurring profit	to	HK$5,313 million	
Total frequency								39

Appendix 4.37C Local grammatical patterns of upward movement in the discourse of economics

#								Freq
1			*the thing that moves*	*movement*	*hinge*	*amount of movement*		56 33.33%
			n	v	prep	num		
			net interest income	increased	by	33 per cent		
2			*the thing that moves*	*movement*	*hinge*	*amount of movement*	*hinge*	32 19.05%
							amount after movement	
			n	v	prep	num	prep	
							num	
			loan impairment	rose	by	9 per cent	to	
							US$649 million	

	charges										
3	*amount of movement*	*movement*	*hinge*	*the thing that moves*							17 10.12%
	num	**n**	prep	n							
	a 20.1 per cent	increase	in	operating profit							
4		*movement*	*hinge*	*amount of movement*							15 8.93%
		n	prep	num							
		an increase	of	HK$29 million or 23%							
5		*movement*	*hinge*	*amount of movement*	*hinge*	*amount before movement*					14 8.33%
		n	prep	num	prep	n					
		an increase	of	HK$398 million, or 18%,	over	that for the previous financial year					
6	*the thing that moves*	*movement*	*hinge*	*amount before movement*	*hinge*	*time before movement*	*hinge*	*amount after movement*	*hinge*	*time after movement*	7 4.17%
	n	v	prep	num	prep	n	prep	num	prep	n	
	the group's employee engagement score	rose	from	67 per cent	in	2008	to	71 per cent	in	2009	
7		*movement*	*hinge*	*amount of movement*	*hinge*	*time before movement*					4 2.38%
		n	prep	num	prep	n					
		an	of	6 per cent	over	2008					

				increase							
8				*movement*	*hinge*	*the thing that moves*	*hinge*	*amount of movement*			4 2.38%
				n	prep	n	prep	num			
				the increase	in	operating profit	of	HK$12,580 million			
9		*amount of movement*		*movement*	*hinge*	*time of movement*					4 2.38%
		det	num	**n**	prep	n					
		a	0.5 per cent	increase	in	2008					
10		*amount of movement*		*movement*	*hinge*	*the thing that moves*	*hinge*	*time of movement*			3 1.79%
		det	num	**n**	prep	n	prep	n			
		a	29.3 per cent and 236.1 per cent	increase	in	turnover	in	the second half of 2009			
11		*the thing that moves*		*movement*	*amount of movement*	*hinge*	*amount after movement*				3 1.79%
		n		**v**	num	prep	num				
		total revenue		increased	33%	to	HK$13,912 million				
12		*the thing that moves*		*movement*	*hinge*	*amount of movement*	*hinge*	*amount after movement*	*hinge*	*time after movement*	3 1.79%

432

#												Freq
			n	**v**	prep	num	prep	num	prep	n		
			impaired loans	increased	by	37 per cent	to	US$2.3 billion	at	31 December 2008		
13	*modifier of movement*		*amount of movement*	*movement*	*hinge*	*the thing that moves*						2 1.19%
	det	adj	num	**n**	prep	n						
	an	impressive	11.7 per cent	increase	in	residential mortgage lending to individuals						
14			*the thing that moves*	*movement*	*hinge*	*amount of movement*	*hinge*	*amount after movement*	*hinge*	*time of movement*		2 1.19%
			n	**v**	prep	num	prep	num	prep	n		
			the Group's gross rental income, including contributions from joint-venture properties	increased	by	18 per cent	to	HK$9,763 million	during	the year under review		
15			*the thing that moves*	*movement*	*hinge*	*amount of movement*	*hinge*	*amount after movement*	*hinge*	*amount before movement*	*hinge* *time of move-ment*	2 1.19%
			n	**v**	prep	num	prep	num	prep	num	prep n	
			loan impairment charges	increased	by	3 per cent	to	US$24.9 billion	from	US$24.1 billion	in 2008	
Total frequency												168

Table 4.37D Combined Local Grammatical Patterns of the phraseologies of upward movement in the discourse of economics

		the thing that moves	*movement*	*(hinge)*	*amount of movement*	*(hinge*	*amount after movement)*	*(hinge*	*amount before movement)*	*(hinge*	*time after movement/ time of movement)*	98 58.33%
		n	**v**	(prep)	num	(prep	num)	(prep	num)	(prep	n)	
		net interest income	increased	by	33 per cent							
		loan impairment charges	rose	by	9 per cent	to	US$649 million					
		total revenue	increased		33%	to	HK$13,912 million					
1		impaired loans	increased	by	37 per cent	to	US$2.3 billion			at	31 December 2008	
		the Group's gross rental income, including contributions from joint-venture properties	increased	by	18 per cent	to	HK$9,763 million			during	the year under review	
		loan impairment charges	increased	by	3 per cent	to	US$24.9 billion	from	US$24.1 billion	in	2008	
2			*movement*	*(hinge*	*the thing that moves)*	*hinge*	*amount of movement*	*(hinge*	*amount before movement/ time before movement)*			37 22.02%
			n	(prep	n)	prep	num	(prep	n/num)			
			an increase			of	HK$29					

					million or 23%						
		an increase		of	HK$398 million, or 18%,	over	that for the previous financial year				
		an increase		of	6 per cent	over	2008				
		the increase	in	operating profit	of	HK$12,580 million					
3	*(modifier of movement)*	*amount of movement*	*movement*	*(hinge*	*the thing that moves)*	*(hinge e*	*time of movement)*				26 15.48%
	(adj)	num	**n**	(prep	n)	prep	n				
		a 20.1 per cent	increase	in	operating profit						
		a 0.5 per cent	increase			in	2008				
		a 29.3 per cent and 236.1 per cent	increase	in	turnover	in	the second half of 2009				
	an impressive	11.7 per cent	increase	in	residential mortgage lending to individuals						
4	*the thing that moves*	*movement*	*hinge*	*amount before movement*	*hinge*	*time before movement*	*hinge*	*amount after movement*	*hinge*	*time after movement*	7 4.17%
	n	v	prep	num	prep	n	prep	num	prep	n	
	the group's employee engagement score	rose	from	67 per cent	in	2008	to	71 per cent	in	2009	
Total frequency											168

Appendix 4.38C Local grammatical patterns of downward movement in the discourse of economics

#										Count
1	*the thing that moves*	*movement*	*hinge*	*amount of movement*						64 46.04%
	n	v	prep	num						
	pre-tax profit	declined	by	35 per cent						
2	*the thing that moves*	*movement*	*hinge*	*amount of movement*	*hinge*	*amount after move-ment*				48 34.53%
	n	v	prep	num	prep	num				
	loan impairment charges	declined	by	11 per cent	to	US$14.2 billion				
3	*the thing that moves*	*movement*	*hinge*	*amount of movement*	*hinge*	*amount after move-ment*	*hinge*	*time after move-ment*		6 4.32%
	n	v	prep	num	prep	num	prep	n		
	personal lending	declined	by	6 per cent	to	US$11 billion	at	31 December 2009		
4	*the thing that moves*	*movement*	*hinge*	*amount before movement*	*hinge*	*time before movement*	*hinge*	*amount after move-ment*	*hinge*	*time after movement*	5 3.60%
	n	v	prep	num	prep	n	prep	num	prep	n	
	mortgage lending	declined	from	US$22 billion	at	31 December 2008	to	US$16 billion	at	31 December 2009	
5	*the thing that moves*	*movement*	*hinge*	*amount before movement*	*hinge*	*amount after move-ment*				4 2.88%
	n	v	prep	num	prep	num				
	balances	declined	from	US$96 billion	to	US$78 billion				
6	*the thing that moves*	*movement*	*amount of move-*	*hinge*	*amount after*					4 2.88%

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		ment		*move-ment*							
	n	v	num	prep	num						
	the Group's capital expenditures	decreased	32%	to	total HK$19,576 million						
7	*the thing that moves*	*movement*	*hinge*	*amount of movement*	*hinge*	*time of movement*					4 2.88%
	n	v	prep	num	prep	n					
	total personal lending	fell	by	6 per cent	in	2009					
8	*the thing that moves*	*movement*	*amount of move-ment*	*hinge*	*amount after move-ment*	*hinge*	*time of move-ment*				2 1.44%
	n	v	num	prep	num	prep	n				
	the Group's consolidated gross interest expense and other finance costs of subsidia-ries, before capitalisation,	decreased	45%	to	total HK$9,889 mil-lion	in	2009				
9	*the thing that moves*	*movement*	*hinge*	*amount after movement*	*hinge*	*time after movement*					2 1.44%
	n	v	prep	num	prep	n					
	two months and more delinquency rates	decreased	to	17.3 per cent	at	31 December 2009					
Total frequency											139

Appendix 4.38D Combined Local Grammatical Patterns of the phraseologies of downward movement in the discourse of economics

	the thing that moves	movement	(hinge)	amount of movement	(hinge	amount after movement)	(hinge	time after movement/time of movement)			128 92.09 %
	n	v	prep	num	prep	num	prep	n			
	pre-tax profit	declined	by	35 per cent							
	loan impairment charges	declined	by	11 per cent	to	US$14.2 billion					
	personal lending	declined	by	6 per cent	to	US$11 billion	at	31 December 2009			
1	the Group's capital expenditures	decreased		32%	to	total HK$19,576 million					
	total personal lending	fell	by	6 per cent			in	2009			
	the Group's consolidated gross interest expense and other finance costs of subsidiaries, before capitalisation,	decreased		45%	to	total HK$9,889 million	in	2009			

	the thing that moves	movement	(hinge	amount before movement)	(hinge	time before movement)	hinge	amount after movement	(hinge	time after move-ment)	11 7.91%
2	n	v	(prep	num)	(prep	n)	prep	num	(prep	n)	
	mortgage lending	declined	from	US$22 billion	at	31 December 2008	to	US$16 billion	at	31 December 2009	
	balances	declined	from	US$96 billion			to	US$78 billion			
	two months and more delinquency rates	decreased					to	17.3 per cent	at	31 December 2009	
Total frequency										139	

Appendix 4.39C Local grammatical patterns of unspecified movement in the discourse of economics

					movement	hinge	the thing that moves	hinge	specifications of the thing that moves	37 31.36%
1					n	prep	n	prep	n	
					change	in	fair value	of	investment properties	
			claims	hinge	movement	hinge	the thing that moves			28 23.73%
2			n	conj	n	prep	n			
			net insurance claims incurred	and	movement	in	liabilities to policyholders			

#											
3						*movement*	*hinge*	*the thing that moves*			13 11.02%
						n	prep	n			
						changes	in	fair value			
4	*modifier of movement*	*movement*	*hinge*	*claims*	*hinge*	*movement*	*hinge*	*the thing that moves*			7 5.93%
	adj	n	prep	n	conj	n	prep	n			
	a corresponding	increase	in	net insurance claims incurred	and	movement	in	liabilities to policyholders			
5					*the thing that moves*	*movement*	*hinge*	*specifications of the thing that moves*			5 4.24%
					n	n	prep	n			
					fair value	move-ments	on	own debt attributable to credit spread			
6				*share*	*hinge*	*movement*	*hinge*	*the thing that moves*	*hinge*	*specifications of the thing that moves*	5 4.24%
				n	prep	n	prep	n	prep	n	
				the Group's attributable share	of	changes	in	fair value	of	investment properties	
7				*influence of movement*	*hinge*	*movement*	*hinge*	*the thing that moves*	*hinge*	*the thing being influenced*	4 3.39%
				n	prep	n	prep	n	prep	n	
				the impact	of	changes	in	volume and interest rates	on	the Group's interest income and interest expense	
8				*influence of moveme nt*	*hinge*	*the thing that moves*	*movement*	*hinge*	*specifications of the thing that moves*		4 3.39%
				n	prep	n	n	prep	n		
				the effect	of	fair	change	on	investment		

				value					properties	
9			*modifier of movement*	*the thing that moves*	*movement*					3 2.54%
			adj	n	n					
			the total	fair value	*movement*					
10			*profit*	*hinge*	*movement*	*hinge*	*the thing that moves*	*hinge*	*specifications of the thing that moves*	3 2.54%
			n	prep	n	prep	n	prep	n	
			operating profit	before	change	in	fair value	of	investment properties	
11	*movement*	*hinge*	*claims*	*hinge*	*movement*	*hinge*	*the thing that moves*			3 2.54%
	n	prep	n	conj	n	prep	n			
	the rise	in	net insurance claims incurred	and	*movement*	in	policyholders' liabilities			
12		*compari-son*	*claims*	*hinge*	*movement*	*hinge*	*the thing that moves*			2 1.69%
		adj	n	conj	n	prep	n			
		higher	net insurance claims incurred	and	*movement*	in	liabilities to policyholders			
13			*analysis*	*hinge*	*movement*	*hinge*	*the thing that moves*			2 1.69%
			n	prep	n	prep	n			
			analysis	of	changes	in	net interest income			
14			*influence of movement*	*hinge*	*movement*	*hinge*	*the thing that moves*			2 1.69%
			n	prep	n	prep	n			
			gains (losses)	on	change	in	fair value			
Total frequency									118	

Appendix 4.39D Combined Local Grammatical Patterns of the phraseologies of unspecified movement in the discourse of economics

No	Combined Local Grammatical Patterns of the phraseologies of unspecified movement in the discourse of economics												Freq
1						*(share profit analysis*	*hinge)*	*movement*	*hinge*	*the thing that moves*	*(hinge*	*specifications of the thing that moves)*	60 50.85%
						(n	prep)	**n**	prep	n	(prep	n)	
								change	in	fair value	of	investment properties	
								changes	in	fair value			
						the Group's attributable share	of	changes	in	fair value	of	investment properties	
						operating profit	before	change	in	fair value	of	investment properties	
						analysis	of	changes	in	net interest income			
2	*(modifier of movement)*		*(movement*	*hinge)*	*(comparison)*	*claims*	*hinge*	*movement*	*hinge*	*the thing that moves*			40 33.90%
	(det	adj)	(n	prep)	(adj)	n	conj	**n**	prep	n			
	a	correspon ding	increase	in		net insurance claims incurred	and	movement	in	liabili-ties to policy-holders			
						net insurance claims incurred	and	movement	in	liabili-ties to policy-			

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								holders			
	the rise	in		net insurance claims incurred	and	movement	in	policy-holders' liabilities			
			higher	net insurance claims incurred	and	movement	in	liabilities to policy holders			
3	*(influence of movement*	*hinge)*		*(modifier of movement)*	*the thing that moves*	*movement*	*(hinge*	*specifications of the thing that moves)*			12 10.17%
	(n	prep)		adj	n	**n**	prep	n			
					fair value	movements	on	own debt attributable to credit spread			
				the total	fair value	movement					
	the effect	of			fair value	change	on	investment properties			
4				*influence of movement*	*hinge*	*movement*	*hinge*	*the thing that moves*	*(hinge*	*the thing being influenced)*	6 5.08%
				n	prep	**n**	prep	n	(prep	n)	
				the impact	of	changes	in	volume	on	the Group's	

								and interest rates		interest income and interest expense	
				gains (losses)	on	change	in	fair value			
Total frequency										118	

Appendix 4.40C Local grammatical patterns of upward movement in the accounting discourse

1					*movement*	*hinge*	*the thing that moves*	*hinge*	*specifications of the thing that moves*		16 25.81%
					n	prep	n	prep	n		
					increase	in	fair value	of	investment properties		
2			*modifier of movement*		*movement*	*hinge*	*the thing that moves*				12 19.35%
			(det)	adj	**n**	prep	n				
			the	subsequent	increase	in	fair value				
3					*movement*	*hinge*	*the thing that moves*				12 19.35%
					n	prep	n				
					increase	in	cash and cash equivalents				
4			*the thing that moves*		*movement*	*hinge*	*amount of movement*				10 16.13%
			n		**v**	prep	num				
			total equity		would increase	by	HK$61 million				
5			*modifier of movement*		*movement*	*hinge*	*the thing that moves*	*hinge*	*specifications of the thing that moves*		3 4.84%

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#									
		det	adj	**n**	prep	n	prep	n	
		any	subsequent	increase	in	the fair value	of	such assets	
6				*movement*	*hinge*	*the thing that moves*	*hinge*	*amount of movement*	3 4.84%
				n	prep	n	prep	num	
				an increase	in	the Group's profit for the year ended 31st December 2009	of	HK$31 million	
7	*extent*	*hinge*		*movement*	*hinge*	*the thing that moves*			2 3.23%
	n	prep		**n**	prep	n			
	the extent	of		the increase	in	fair value			
8		*modifier of movement*		*movement*	*hinge*	*the thing that moves*	*hinge*	*the thing to be excluded from the movement*	2 3.23%
	det	adj		**n**	prep	n	prep	n	
	any	subsequent		increase	in	the fair value	less	costs to sell	

	the thing that moves	hinge	the thing that moves	movement	hinge	amount of movement	hinge	amount of movement	method of presentation	
9										2 3.23%
	n	conj	n	v	prep	num	conj	num	adv	
	the Group's revenue	and	profit before taxation	would have been increased	by	HK$2,906.0 million	and	HK$294.2 million	respectively	
Total frequency										62

Appendix 4.40D Combined Local Grammatical Patterns of the phraseologies of upward movement in the accounting discourse

	(extent	hinge)	(modifier of movement)		movement	hinge	the thing that moves	(hinge	specifications of the thing that moves)	(hinge	the thing to be excluded from the movement)	47 75.81%
1	(n	prep)	((det)	adj)	**n**	prep	n	(prep	n)	(prep	n)	
					increase	in	fair value	of	investment properties			
			the	subsequent	increase	in	fair value					
					increase	in	cash and cash equivalents					
			any	subsequent	increase	in	the fair value	of	such assets			
			any	subsequent	increase	in	the fair value			less	costs to sell	
	the extent	of			the increase	in	fair value					
2	(the thing that moves	hinge)	the thing that moves		movement	hinge	amount of movement	(hinge	amount of movement	method of presenta		12 19.35%

								tion)		
(n	conj)	n	**v**	prep	num	(conj	num	adv)		
		total equity	would increase	by	HK$61 million					
the Group's revenue	and	profit before taxation	would have been increased	by	HK$2,906.0 million	and	HK$294.2 million	respectiv ely		
3			*movement*	*hinge*	*the thing that moves*	*hinge*	*amount of movement*			3 4.84 %
			n	prep	n	prep	num			
			an increase	in	the Group's profit for the year ended 31st December 2009	of	HK$31 million			
Total frequency										62

Table 4.41C Local grammatical patterns of downward movement in the accounting discourse

1			*the thing that moves*	*movement*						10 16.39 %
			n	v						
			the amount of an impairment loss	decreases						
2			*movement*	*connect*	*nature of connection*	*hinge*	*reason of movement*			10 16.39 %
			n	v (passive)	adv	prep	n			
			the decrease	can be linked	objectively	to	an event occurring after the impairment			

#	the thing that moves	hinge	modifier / specifications		movement	hinge	the thing that moves	hinge	Specifications of the thing that moves	hinge	extent of movement	count
									loss was recognised			
3			modifier of movement		movement	hinge	the thing that moves	hinge	Specifications of the thing that moves	hinge	extent of movement	9 14.75%
			det	adj	n	prep	n	prep	n	prep	n	
			a	significant or prolonged	decline	in	the fair value	of	the security	below	its cost	
4			modifier of movement		movement	hinge	the thing that moves	hinge	reason of movement			9 14.75%
			det	adj	n	prep	n	prep	n			
			a	measurable	decrease	in	the estimated future cash flows	from	a portfolio of loans			
5	the thing that moves	hinge	specifications of the thing that moves		movement	hinge	method of the movement					8 13.11%
	n	prep	n		v (passive)	prep	n					
	the carrying amount	of	the asset		is reduced	through	the use of an allowance account					
6	the thing that moves	hinge	specifications of the thing that moves		movement							4 6.56%
	n	prep	n		v (passive)							2 3.28%
	the total carrying amount	of	such investments		is reduced							
	n	prep	n		v (passive + negative)							2 3.28

												%
	the carrying amount	of	the investment in the investee	will not be reduced								
7			*modifier of movement*		*movement*	*hinge*	*the thing that moves*	*hinge*	*extent of movement*			3 4.92 %
			(det)	adj	n	prep	n	prep	n			
			a	significant or prolonged	decline	in	fair value	below	cost			
8			*modifier of movement*		*movement*	*hinge*	*the thing that moves*	*hinge*	*specifications of the thing that moves*			3 4.92 %
			det	adj	n	prep	n	prep	n			
			a	subsequent	decline	in	fair value	of	the instrument			
9					*movement*	*hinge*	*the thing that moves*	*hinge*	*specifications of the thing that moves*			3 4.92 %
					n	prep	n	prep	n			
					the decline	in	the fair value	of	the financial asset			
10			*the thing that moves*		*movement*	*hinge*	*extent of movement*						2 3.28 %
			n		v (passive)	prep	n					
			the carrying amount		is reduced	to	the estimated recoverable amount					
Total frequency												61

Appendix 4.41D Combined Local Grammatical Patterns of the phraseologies of downward movement in the accounting discourse

			(modifier of movement)	*movement*	*hinge*	*the thing that moves*	*(hinge*	*specifications of the thing that moves)*	*(hinge*	*extent of movement /reason of movement)*	27 44.26 %
1			(adj)	**n**	prep	n	(prep	n)	(prep	n)	
			a significant or prolonged	decline	in	the fair value	of	the security	below	its cost	
			a measurable	decrease	in	the estimated future cash flows			from	a portfolio of loans	
			a subsequent	decline	in	fair value	of	the instrument			
			a significant or prolonged	decline	in	fair value			below	cost	
				the decline	in	the fair value	of	the financial asset			
2	*the thing that moves*	*(hinge*	*specifications of the thing that moves)*	*movement*	*(hinge*	*method of the movement/ extent of movement)*					24 39.34 %
	n	(prep	n)	v (passive/ active)	(prep	n)					
	the carrying amount	of	the asset	is reduced	through	the use of an allowance account					
	the total carrying amount	of	such investments	is reduced							
	the carrying amount			is reduced	to	the estimated recoverable amount					
	the amount of an			decreases							

3	impairment loss												
				movement	*connect*	*nature of connection*	*hinge*	*reason of movement*					10 16.39 %
				n	v	adv	prep	n					
				the decrease	can be linked	objectively	to	an event occurring after the impairment loss was recognised					
Total frequency													61

Appendix 4.42C Local grammatical patterns of unspecified movement in the accounting discourse

1						*move-ment*	*hinge*	*the thing that moves*	*hinge*	*specifi-cations of the thing that moves*									36
						n	prep	n	prep	n									
						chan-ge	in	fair value	of	avail-able-for-sale finan-cial assets									
2				*state-ment*	*hinge*	*move-ment*	*hinge*	*the thing*											31

								that moves												
				n	prep	n	prep	n												
				conso-lidated state-ment	of	chan-ges	in	equity												
3						*move-ment*	*hinge*	*the thing that moves*												28
						n	prep	n												
						chan-ges	in	fair value												
4						*move-ment*	*hinge*	*the thing that moves*	*refe-rence*	*hinge*	*state-ment*									16
						n	prep	n	v (pas-sive)	prep	n									
						chan-ges	in	fair value	are includ-ed	in	in-come state-ment									
5				*modifier of movement*		*move-ment*	*hinge*	*the thing that moves*												5
				(det)	adj	n	prep	n												
				th	initial	chan-ge	in	fair value												

					e											
					modifier of movement	*move-ment*	*hinge*	*the thing that moves*	*refe-rence*	*hinge*	*modi-fier of move-ment*	*move-ment*	*hinge*	*the thing that moves*	*hinge*	*state-ment*	5
6					adj	n	prep	n	v (passive)	prep	n	n	prep	n	prep	n	
					'non-owner	chan-ges	in	equity'	to be present-ed	sepa-rately from	owne r	chan-ges	in	equity	in	a state-ment of comp-rehen-sive in-come	
					modifier of movement	*move-ment*	*hinge*	*the thing that moves*	*refere nce*	*hinge*	*state-ment*						4
7					adj	n	prep	n	v (pas-sive)	prep	n						
					all non-owner	chan-ges	in	equity	are presen ted	in	the conso-lidate d state-ment of comp-rehen-sive in-come						

#																
8				*influence of movement*	*hinge*	*move-ment*	*hinge*	*the thing that moves*								3
				n	prep	n	prep	n								
				gains	from	chan-ges	in	fair value								
9				*profit*	*hinge*	*move-ment*	*hinge*	*the thing that moves*	*hinge*	*specifi-cations of the thing that moves*						3
				n	prep	n	prep	n	prep	n						
				operat-ing profit	before	chan-ge	in	fair value	of	invest-ment proper-ties						
10				*influ-ence of the move-ment*	*hinge*	*move ment*	*hinge*	*the thing that moves*	*hinge*	*speci-fica-tions of the thing that moves*						3
				n	prep	n	prep	n	prep	n						
				gains and losses	from	chan-ges	in	the fair value	of	such assets						
11						*move-ment*	*hinge*	*the thing that moves*	*hinge*	*speci-fica-tions of the thing that moves*	*refe-rence*	*hinge*	*state-ment*			3
						n	prep	n	prep	n	v	prep	n			

									(pas-sive)					
					chan-ges	in	fair values	of	invest-ment proper-ties	are record-ed	in	the in-come state-ment		
12			*influ-ence of the move-ment*	*hinge*	*move-ment*	*hinge*	*the thing that moves*	*refe-rence*	*hinge*	*state ment*				3
			n	prep	n	prep	n	v (passi ve)	prep	n				
			any gains and losses	from	chan-ges	in	fair value	are recog-nised	in	the in-come state-ment				
13					*move ment*	*hinge*	*the thing that moves*	*influen ce*	*the thing being influ-enced*					3
					n	prep	n	v	n					
					chang es	in	market interes t rates	affect	the inte-rest in-come or ex-pense of float-ing rate					

#										
									financial instruments	
14		*amount of movement* →		*modifier of movement*	*move ment*	*hinge*	*the thing that moves*	*hinge*	*specifications of the thing that moves*	2
			(det)	adj	n	prep	n	prep	n	
			the	total	change	in	fair value	of	these instruments	
15		*amount of movement*	*hinge*		*move-ment*	*hinge*	*the thing that moves*	*hinge*	*reason of movement*	2
		n	prep		n	prep	n	adj	n	
		the cumulative amount	of		change	in	fair value	attribu-table to	changes in credit risk	
16		*portion of movement*	*hinge*		*move ment*	*hinge*	*the thing that moves*			2
		num	prep		n	prep	n			
		10 per cent	of		change	in	fair value			
17		*portion of moveme*	*hinge*	*modifier of movement*	*move-ment*	*hinge*	*the thing that moves*	*hinge*	*specifications of the thing that*	2

			nt								*moves*							
			n	prep	det	adj	n	prep	n	prep	n							
			the effective portion	of	the	cumulative net	change	in	the fair value	of	the hedging instruments used in cash flow hedges							
			portion of movement	*hinge*		*move-ment*	*hinge*	*the thing that moves*	*hinge*	*specifications of the thing that moves*							2	
			n	prep	n		prep	n	prep	n								
18			the effective portion	of	changes		in	the fair value	of	derivatives that are designated and qualify as cash flow hedges								
19					*the thing that moves*	*move-ment*	*hinge*	*specifications of the thing that moves*									2	
					n	n	prep	n										

				fair value	chan-ges	of	avail-able for sale invest-ment securi-ties										
2 0					*move-ment*	*refe-rence*	*hinge*	*state-ment*									2
					n	v (pas-sive)	prep	n									
					chan-ges	recog-nised	in	the incom e state-ment									
2 1				*the thing that moves*	*move-ment*	*refe-rence*	*hinge*	*state-ment*									2
				n	n	v (pas-sive)	prep	n									
				fair value	chan-ges	recog-nised	in	the incom e state-ment									
2 2				*the thing that moves*	*move-ment*	*trans-ferenc e*	*hinge*	*state-ment*									2
				n	n	v (pas sive)	prep	n									
				fair value	chan-ges	trans-ferred	from (to)	incom e									

									state-ment								
	balan-ces	*refe-rence*	*hin-ge*	*state-ment*	*hinge*	*move-ment*	*hinge*	*the thing that moves*									2
	n	v (pas-sive)	prep	n	prep	n	prep	n									
2 3	The reconci-liation between the opening and closing balan-ces of each compo-nent of the Group's consoli-dated equity	is set out	in	the conso-lidated state-ment	of	chan-ges	in	equity									
Total frequency																	163

Appendix 4.42D Combined Local Grammatical Patterns of the phraseologies of unspecified movement in the accounting discourse

1			*(influence of movement* / *portion of movement* / *profit* / *amount of movement*	*hinge)*	*(modifier of movement)*	*move-ment*	*hinge*	*the thing that moves*	*(hinge*	*specifications of the thing that moves)*	*(refe-rence* / *(influ-ence*	*hinge*	*statement)* / *the thing being influenced)*				1177 1.78 %
			(n/num	prep)	(adj)	n	prep	n	(prep	n)	(v	prep	n)				
						change	in	fair value	of	available-for-sale financial assets							
						chan-ges	in	fair value									
					the initial	change	in	fair value									
					the total	change	in	fair value	of	these instruments							
						chang-es	in	fair value			are inc-luded	in	income statement				
					all non-	change	in	equit			are	in	the				

						owner	s		y			presented		consoli-dated statement of compre-hensive income				
						chan-ges	in		fair value s	of	invest-ment proper-ties	are recor-ded	in	the income statement				
			gains	from		chan-ges	in		fair value									
			gains and losses	from		chan-ges	in		the fair value	of	such assets							
			operati ng profit	befor e		change	in		fair value	of	invest-ment proper-ties							
			any gains and losses	from		chan-ges	in		fair value			are recog -nised	in	the income statement				
			the cumula-tive amount	of		change	in		fair value	attrib utabl e to	chan-ges in credit risk							
			the effec-tive portion	of	the cumula-tive net	change	in		the fair value	of	the hed-ging instru-ments used in cash flow							

									hedges					
		10 per cent	of		change	in	fair value							
		the effec-tive portion	of		chan-ges	in	the fair value	of	deriva-tives that are desig-nated and qualify as cash flow hedges					
					chan-ges	in	mar-ket inte-rest rates				affect	the interest income or expense of floating rate financial instru-ments		
	(balan-ces	*refe-rence*	*hinge)*	*state-ment*	*hinge*	*move-ment*	*hinge*	*the thing that moves*						3 3
2	(n	v (pas-sive)	prep)	n	prep	n	prep	n						2 0. 2 5 %
				conso-lidated state-ment	of	chan-ges	in	equit y						

	The reconciliation between the opening and closing balances of each component of the Group's consolidated equity	is set out	in	the consolidated statement	of	changes	in	equity								
3					*the thing that moves*	*movement*	*(hinge*	*specifications of the thing that moves)*	*(reference/ transference*	*hinge*	*statement)*					6 3.68 %
					n	n	(prep	n)	(v (passive)	prep	n)					
					fair value	changes	of	available for sale investment securities								
					fair value	changes			recognised	in	the income statement					
					fair	chan-			trans-	from	income					

					value	ges			ferred	(to)	state-ment					
4					*modifier of move-ment*	*move-ment*	*hinge*	*the thing that moves*	*refer-ence*	*hinge*	*modi-fier of move-ment*	*move-ment*	*hinge*	*the thing that moves*	*hin-ge*	*state-ment*
					adj	n	prep	n	v (passive)	prep	n	n	prep	n	prep	n
					'non-owner	chan-ges	in	equity,'	to be presen-ted	separate-ly from	own-er	chan-ges	in	equity	in	a state-ment of comp-rehen-sive in-come
5						*move-ment*			*refer-ence*	*hinge*	*state-ment*					
						n			v (pas-sive)	prep	n					
						chan-ges			recog-nised	in	the in-come state-ment					

Group 4: 5, 3.07%
Group 5: 2, 1.23%

| Total frequency | | | | | | | | | | | | | | | | 163 |

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References

Abrahamson, E. & Park, C. (1994). Concealment of negative organization outcomes: an agency theory perspective. *Academy of Management Journal*, *37*(5), 1302-1334.

Ahmad, K. (2005). Terminology in Text. Paper presented at the *Tuscan Word Centre International Workshop: Dial a Corpus*. Certosa di Pontignano: Italy.

Ahmad, K., Gillam, L., & Cheng, D. (2005). Society grids. In S. Cox & D. Walker (Eds.), *Proceedings of the UK e-Science All Hands Meeting 2005* (pp. 923-930). 18-21 September. Nottingham UK. Swindon: EPSRC.

Ahmad, K., Cheng, D., & Almas, Y. (2006). Multi-lingual sentiment analysis of financial news streams. *Proceedings of the 1st International Conference on Grid Technology for Financial Modeling and Simulation* (pp. 1-8). 3-4 February. Palermo, Italy.

Ahmed Haji, A. & Mohd Ghazali, N. A. (2012) The influence of the financial crisis on corporate voluntary disclosure: Some Malaysian evidence. *International Journal of Disclosure and Governance*, *9*(2), 101-125.

Allan, R. (2009). Can a graded reader corpus provide 'authentic' input? *ELT Journal*, *63*(1), 23-32.

Allen, CM. (2006). Local grammar of cause and effect: A corpus-driven study. Unpublished Ph.D. Dissertation, University of Birmingham.

Altenberg, B. (1998). On the phraseology of spoken English: the evidence of recurrent word-combinations. In A.P. Cowie (Ed.), *Phraseology: Theory, Analysis and Applications*. Oxford: Oxford University Press, 101-122.

Anderson, C. & Imperia, G. (1992). The corporate annual report: A photo analysis of male and female portrayals. *Journal of Business Communication*, *29*, 113-128.

Anthony, L. (2005). AntConc: A learner and classroom friendly, multi-platform corpus analysis toolkit. In L. Anthony, S. Fujita, & Y. Harada (Eds.), *Proceedings of IWLeL2004: An interactive workshop on language e-learning*, 7-13. Tokyo: Waseda University.

Baptista, J. (1998). A local grammar of proper nouns. *Seminários de Linguística, 2*, 21-37.

Baptista, J., Batista, F., & Mamede, N. (2006). Building a dictionary of anthroponyms. In R. Vieira et al. (Eds.) *PROPOR 2006* (pp. 21-30), Berlin Heidelberg: Springer- Verlag.

Barnbrook, G. (2002). *Defining language: A local grammar of definition sentences*. Amsterdam: John Benjamins.

Barnbrook, G., & Sinclair, J. McH. (1995). Parsing Cobuild entries. In J. McH. Sinclair, M. Hoelter, & C. Peters (Eds.) *The Languages of Definition: The Formalization of Dictionary Definitions for Natural Language Processing* (pp. 13-58). Luxembourg: Office for Official Publications of the European Communities.

Barnbrook, G., & Sinclair, J. McH. (2001). Specialised corpus, local and functional linguistics. In M. Ghadessy, A. Henry, & R. L. Roseberry (Eds.) *Small Corpus*

466

Studies and ELT: Theory and Practice (pp. 237-276). Amsterdam/Philadelphia: John Benjamins.

Becker, T. H. (2004). *Doing Business in the New Latin America: A guide to cultures, practices, and opportunities*. Westport, CT: Praeger.

Bednarek, M. (2007). Local grammar and register variation: Explorations in broadsheet and tabloid newspaper discourse. *Empirical Language Research Journal*, *2*, 1-22.

Bernardi, R. A., Bean, D. F., & Weippert, K. M. (2002). Signaling gender diversity through annual report pictures: a research note on image management. *Accounting, Auditing & Accountability Journal*, *15*(4), 609-616.

Bernstein, L. A. & Wild, J. J. (2000). *Analysis of Financial Statements*. New York: McGraw-Hill.

Bhatia, V. K. (2002). Generic patterns in promotional discourse. In Halmari, H. & Virtanen, T. (Eds), *Persuasion across Genres: A Linguistic Approach* (pp. 213-225). Amsterdam: John Benjamins.

Bhatia, V. K. (2008). Towards critical genre analysis. In Bhatia, V. K., Flowerdew, J. & Jones, R. H. (Eds.) Advances in Discourse Analysis (pp. 166-177). London / New York: Routledge.

Bhatia, V. K. (2010). Interdiscursivity in professional communication. *Discourse & Communication 21* (1), 32-50.

Bhatia, V. K. & Bremner, S. (2014). *The Routledge Handbook of Language and Professional Communication*. London / New York: Routledge.

Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999) *Longman Grammar of Spoken and Written English*. London: Longman.

Biber, D., Conrad, S., & Cortes, V. (2003). Lexical bundles in speech and writing: An initial taxonomy. In A. Wilson, P. Rayson, & T. McEnery (Eds.) *Corpus Linguistics by the Lune: A Festschrift for Geoffrey Leech* (pp. 71-93). Frankfurt/Main: Peter Lang.

Biber, D., Conrad, S. & Cortes, V. (2004). *If you look at ...*: Lexical bundles in university teaching and textbooks. *Applied Linguistics*, *25*, 371-405.

Boesso, G. & Kumar, K. (2007). Drivers of corporate voluntary disclosure: A framework and empirical evidence from Italy and the United States. *Accounting, Auditing and Accountability Journal*, *20*(2), 269-296.

Bondi, M. (2010). Metadiscursive practices in introductions: Phraseology and semantic sequences across genres. *Nordic Journal of English Studies*, *9*(2), 99-123.

Bondi, M. & Seidenari, C. (2012). *And now I'm finally of the mind to say I hope the whole ship goes down…*: Markers of subjectivity and evaluative phraseology in blogs. In Mukherjee, J. & Huber, M. (Eds) *Corpus Linguistics and Variation in English: Theory and Description*. Amsterdam: Rodopi, 17-27.

Bondi, M. & Diani, G. (2015). *I am wild about cabbage*: Evaluative 'semantic sequences' and cross-linguistic (dis)similarities. *Nordic Journal of English Studies*, *14*(1), 116-151.

Bondt, W. D. (2010). The crisis of 2008 and financial reform. *Qualitative Research in Financial Markets*, *2*(3), 137-156.

Botosan, C. A. (1997). Disclosure level and the cost of equity capital. *Accounting Review*, *72*(3), 323-349.

Brazil, D. (1995). *A Grammar of Speech*. Oxford: Oxford University Press.

Breeze, R. (2013). *Corporate Discourse*. London: Bloomsbury Publishing Plc.

Brown, I., Steen, A. & Foreman, J. (2009). Risk management in corporate governance: A review and proposal. *Corporate Governance: An International Review*, *17*(5), 546-558.

Cable, D. M. & Turban, D. B. (2003). The value of organizational reputation in the recruitment context: a brand equity perspective. *Journal of Applied Social Psychology*, *33*, 2244-2266.

Capelle-Blancard, G. & Couderc, N. (2008). What drives the market value of firms in the defence industry? *Review of Financial Economics*, *17*(1), 14-32.

Carter, R. & McCarthy, M. (2006). *Cambridge Grammar of English: a comprehensive guide; spoken and written English grammar and usage*. Cambridge/New York: Cambridge University Press.

Caseiro, D. & Trancoso, I. (2002). Using dynamic wfst composition for recognizing broadcast news. In proc. *ICSLP '2002*. Denver, Colorado: EUA.

Census and Statistics Department [C&SD]. (2008). *Gross Domestic Product: Third Quarter 2008*. Hong Kong: The Department.

Census and Statistics Department [C&SD]. (2009a). *Gross Domestic Product: Fourth Quarter 2008*. Hong Kong: The Department.

Census and Statistics Department [C&SD]. (2009b). *Gross Domestic Product: First Quarter 2009*. Hong Kong: The Department.

Census and Statistics Department [C&SD]. (2009c). *Gross Domestic Product: Second Quarter 2009*. Hong Kong: The Department.

Census and Statistics Department [C&SD]. (2009d). *Gross Domestic Product: Third Quarter 2009*. Hong Kong: The Department.

Census and Statistics Department [C&SD]. (2010a). *Hong Kong Annually Digest of Statistics*. Hong Kong: The Department.

Census and Statistics Department [C&SD]. (2010b). *Gross Domestic Product: Fourth Quarter 2009*. Hong Kong: The Department.

Census and Statistics Department [C&SD]. (2010c). *Hong Kong Annually Digest of Statistics, Feature Article: The movement of the unemployment rate in 2009*. Hong Kong: The Department.

Chang, L. S. & Most, K. S. (1977). Investor uses of financial statements: An empirical study. *Singapore Accountant*, *12*, 83-91.

Charteris-Black, J. (2000). Metaphor and vocabulary teach in ESP economics. *English for Specific Purposes*, *19*, 149-165.

Charteris-Black, J. & Musolff, A. (2003). 'Battered hero' or 'innocent victim'? A comparative study of metaphors for euro trading in British and German financial reporting. *English for Specific Purposes*, *22*, 153-176.

Cheng, W. (2006). Describing the extended meanings of lexical cohesion in a corpus of SARS spoken discourse. *International Journal of Corpus Linguistics, 11*(3): 325-344.

Cheng, W. (2007). Concgramming: A corpus-driven approach to learning the phraseology of discipline-specific texts. CORELL: *Computer Resources for Language Learning, 1*, 22-35.

Cheng, W. (2009). *income/interest/net*: Using internal criteria to determine the aboutness of a text. In K. Aijmer (Ed.), *Corpora and Language Teaching* (pp.157-78). Amsterdam/Philadelphia: John Benjamins.

Cheng, W. (2012). *Exploring Corpus Linguistics: Language in Action*. London: Routledge.

Cheng, W. (2013). Corpus-based linguistic approaches to critical discourse analysis. In Chapelle, C. A. (Ed), *The Encyclopedia of Applied Linguistics* (pp. 1353-1360). Oxford: Blackwell Publishing Ltd.

Cheng, W., Greaves, C. and Warren M. (2006). From n-gram to skipgram to concgram. *International Journal of Corpus Linguistics 11* (4): 411–33.

Cheng, W., Greaves, C., Sinclair, J. McH. & Warren, M. (2008). Uncovering the extent of the phraseological tendency: Towards a systematic analysis of concgrams. *Applied Linguistics 30* (2): 236–252.

Chomsky, N. (1957). *Syntactic Structures*. The Hague: Mouton.

Chomsky, N. (1965). *Aspects of the Theory of Syntax*. Cambridge/Massachusetts: The M.I.T. Press.

Chow, L., Kan, S, Taylor, D. & Tsui, C. (2006). *Advanced Financial Accounting in Hong Kong*. Hong Kong: Longman Hong Kong Education.

Chun, R. (2005). Corporate reputation: Meaning and management. *International Journal of Management Reviews*, *7*(2), 91-109.

Clatworthy, M. & Jones, M. J. (2001). The effect of thematic structure on the variability of annual report readability. *Accounting, Auditing and Accountability Journal*, 14 (3), 311-326.

Clatworthy, M. & Jones, M. J. (2003). Financial reporting of good news and bad news: Evidence from accounting narratives. *Accounting and Business Research*, 33 (3), 171-185.

Clatworthy, M. & Jones, M. J. (2006). Differential patterns of textual characteristics and company performance in the chairman's statement. *Accounting, Auditing & Accountability Journal*, *19*(4), 493-511.

Clear, J. (1993). From Firth principles: computational tools for the study of collocation. In Baker, M., Francis, G. & Tognini-Bonelli, E. (Eds.) *Text and Technology* (pp.271-292). Amsterdam: John Benjamins.

Collins Cobuild Student's Dictionary. (1990). London: Harper Collins.

Conaway, R. N. & Wardrope, W. J. (2010). Do their words really matter? Thematic analysis of U.S. and Latin American CEO letters. *Journal of Business Communication*, *47*(2), 141-168.

Cornelissen, J. P. (2011). *Corporate Communications: A Guide to Theory and Practice* (3rd edition). London: Sage Publications, Ltd.

Cortes, V. (2004). Lexical bundles in published and student disciplinary writing: Examples from history and biology. *English for Specific Purposes, 23*, 397-423.

Courtis, J. K. (1986). An investigation into annual report readability and corporate risk-return relationships. *Accounting and Business Research, 16*, 285-294.

Courtis, J. K. (1998). Annual report readability variability: tests of the obfuscation hypothesis. *Accounting, Auditing & Accountability Journal*, *11*(4), 459-71.

Courtis, J. K. (2004). Corporate report obfuscation: artefact or phenomenon? *British Accounting Review, 36*(3), 291-312.

Courtright, J. L. & Smudde, P. M. (2009). Leveraging organizational innovation for strategic reputation management. *Corporate Reputation Review*, *12*(3), 245-269.

Cowie, A. P. (1981). The treatment of collocations and idioms in learners' dictionaries. *Applied Linguistics, 2* (3), 223-235.

Crismore, A., Markkanen, R., & Steffensen, M. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication*, *10* (1), 39-71.

Crowther, D., Carter, C., & Cooper, S. (2006). The poetics of corporate reporting: Evidence from the UK water industry. *Critical Perspectives on Accounting*, *17*, 175-201.

David, C. (2001). Mythmaking in annual reports. *Journal of Business and Technical Communication*, *15*(2), 195-222.

Deegan, C., Rankin, M. & Voght, P. (2000). Firms' disclosure reactions to major social incidents: Australian evidence. *Accounting Forum*, *24*(1), 101-130.

Ditlevsen, M. G. (2012). Telling the story of Danisco's annual reports (1935 through 2007-2008): from a Communicative perspective. *Journal of Business and Technical Communication*, *26*(1), 92-115.

Dolphin, R. R. (2004). The strategic role of investor relations. *Corporate Communications: An International Journal*, *9*(1), 25-42.

Dragsted, B. (2014). A case study of letters to shareholders in annual reports before, during and after the financial crisis. *LSP Journal*, *5*(2), 84-104.

Eleutério, S., Marques Ranchhod, E., Freire, H. & Baptista, J. (1995). A system of electronic dictionaries of Portuguese. *Linguisticae Investigationes, XIX* (1), 57-82.

Erman, B. & Warren, B. (2000). The idiom principle and the open-choice principle. *Text, 20* (1), 29-62.

Fairclough, N. (1989). *Language and Power*. London: Longman.

Fairclough, N. (2013). *Critical Discourse Analysis: The critical study of language* (second edition). London / New York: Routledge.

Falsey, T. A. (1989). *Corporate Philosophies and Mission Statements: A survey and guide for corporate communicators and management*. Westport, CT: Greenwood.

Fillmore, C. J., Kay, P., & O'Connor. M. C. (1988). Regularity and idiomaticity in grammatical constructions: The case of *let alone*. *Language*, *64* (3), 501-538.

Fletcher, W.H. (2006). "Phrases in English" Home. Retrieved 15 February 2006, from http://pie.usna.edu.

Flowerdew, J. & Wan, A. (2010). The linguistic and the contextual in applied genre analysis: the case of the company audit report. *English for Specific purposes 29 (2010)*, 78-93.

Francis, G., Hunston, S. & Manning, E. (1996). *Collins COBUILD Grammar Patterns 1: Verbs*. London: HarperCollins.

Francis, G., Hunston, S., & Manning, E. (1998). *Collins COBUILD Grammar Patterns 2: Nouns and Adjectives*. London: HarperCollins.

Frandsen, F. & Johansen, W. (2014). Corporate communication. In Bhatia, V. K. & Bremner, S. (Eds.), *The Routledge Handbook of Language and Professional Communication* (pp. 220-236). London / New York: Routledge.

Fraser, L. M. and Ormiston, A. (2007). *Understanding Financial Statements*. New Jersey: Pearson Prentice Hall.

Gale, W. A., Church, K. W., & Yarowsky, D. (1993). A method for disambiguating word senses in a large corpus. *Computers and the Humanities*, *26*(5-6), 415-439.

Gavioli, L. & Aston, G. (2001). Enriching reality: Language corpora in language pedagogy. *ELT Journal*, *55*(3), 238-246.

Gibson, C. H. (2009). *Financial Reporting & Analysis: Using financial accounting information*. Mason: South-Western Cengage Learning.

Gläser, R. (1998). The stylistic potential of phraseological units in the light of genre analysis. In A. P. Cowie (Ed.), *Phraseology: Theory, Analysis and Applications* (pp. 125-143). Oxford: Oxford University Press.

Gledhill, C. (2000). *Collocations in Science Writing*. Tübingen: Gunter Narr.

Goldberg, A. E. (1995). *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press.

Goodman, M. B. (2004). Today's corporate communication function. In Oliver, S. M. (Ed.), *Handbook of Corporate communication and Public Relations: Pure and applied* (pp. 198-224). London/New York: Routledge.

Greaves, C. (2005). Introduction to ConcGram©. *Tuscan Word Centre International Workshop*. Certosa di Pontignano, Tuscany, Italy, 25-29 June 2005.

Greaves, C. (2009). *ConcGram 1.0: A phraseological search engine*. Amsterdam/ Philadelphia: John Benjamins.

Greaves, C. & Warren, M. (2008). Beyond clusters: a new look at word associations. Paper presented at *IVACS 4*, *4th International Conference: Applying Corpus Linguistics*. University of Limerick, Ireland, 13-14 June, 2008.

Groot, E. B. de. (2014). Corporate communications and the role of annual reporting. In Bhatia, V. K. & Bremner, S. (Eds.), The Routledge Handbook of Language and Professional Communication (pp. 237-253). London / New York: Routledge.

Gross, M. (1993). Local grammars and their representation by finite automata. In M. Hoey (Ed.), *Data, Description, Discourse* (pp. 26-38). London: HarperCollins.

Guthrie, D., Allison, B., Liu, W., Guthrie, L., & Wilks, Y. (2006). A closer look at skip-gram modelling. *5th International Conference on Language Resources and Evaluation (LREC 06)*, European Language Development Assoc., 2006.

Habermas, J. (1984; 1987). *The Theory of Communicative Action*, *Vols 1&2*, translated by McCarthy, T. Boston: Beacon Press.

Halliday, M.A.K. (1966). Lexis as a linguistic level. In C.E. Bazell, J.C. Catford, M.A.K. Halliday & R.H. Robins (Eds.), *In Memory of J.R. Firth* (pp. 148-162). London: Longman.

Halliday, M.A.K. (1994). *An Introduction to Functional linguistics*. 2nd edition. London: Arnold.

Halliday, M.A.K. (1998). On the grammar of pain. In *Functions of Language, 5* (1), 1-32.

Hanks, P. (2004). Corpus pattern analysis. In Williams, G. & Vessier, S. (Eds), *Euralex Proceedings*. Vol. I, Lorient, France, Universit é de Bretagne-Sud, 87-98.

Hart, R. P. (2000). *DICTION 5.0. User Manual*. Austin, TX: Digitex Inc.

Henry, E. (2008). Are investors influenced by how earnings press releases are written? *Journal of Business Communication*, *45*(4), 363-407.

Hildebrandt, H. H. & Snyder, R. (1981). The Pollyanna hypothesis in business writing: initial results, suggestions for research. *The Journal of Business Communication*, *18*(1), 5-15.

Hui, W. F. & Ng, P. H. (2007). *Accounting in Hong Kong: Regulatory framework and advanced accounting practice*. Hong Kong: City University of Hong Kong.

Hunston, S. (1999). Local Grammars: the future of corpus-driven grammar? Paper read at *the 32nd BAAL Annual Meeting*. University of Edinburgh. September 1999.

Hunston, S. (2002). *Corpora in Applied Linguistics*. Cambridge: Cambridge University Press.

Hunston, S. (2008). Starting with the small words: Patterns, lexis and semantic sequences. *International Journal of Corpus Linguistics*, *13*(3), 271-295.

478

Hunston, S. & Francis, G. (2000). *Pattern Grammar: A corpus-driven approach to the lexical grammar of English*. Amsterdam/Philadelphia: John Benjamins.

Hunston, S. & Sinclair, J. McH. (2000). A local grammar of evaluation. In S. Hunston & G. Thompson (Eds.) *Evaluation in Text: Authorial Stance and the Construction of Discourse* (pp. 74-101). Oxford: Oxford University Press.

Hyland, K. (1998). Exploring corporate rhetoric: Metadiscourse in CEO's letter. *Journal of Business Communication*, *35*, 224-245.

Hyland, K. (2008a). Academic clusters: text patterning in published and postgraduate writing. *International Journal of Applied Linguistics*, *18*, 41-62.

Hyland, K. (2008b). As can be see: lexical bundles and disciplinary variation. *English for Specific Purposes*, *27*(1), 4-21.

Kay, P. (2002). An informal sketch of a formal architecture for construction grammar. *Grammars, 5*, 1-19.

Kay, P. & Fillmore, C. J. (1999). Grammatical constructions and linguistic generalizations: The What's X doing Y? construction. *Language*, *75* (1), 1-33.

Kohut, G. & Segars, A. (1992). The president's letter to stockholders: An examination of corporate communication strategy. *Journal of Business Communication*, *29*, 7-21.

Lan, C. (2000). A Cognitive Approach to Spatial Metaphors in English and Chinese. Unpublished Ph.D. dissertation. The Hong Kong Polytechnic University, Hong Kong.

Laurence, A. (2012). AntConc: A freeware concordance program for windows (version 3.3.5w) [computer software]. Retrieved from http://www.antlab.sci.waseda.ac.jp/software.html/

Lischinsky, A. (2011). In times of crisis: A corpus approach to the construction of the global financial crisis in annual reports. *Critical Discourse Studies*, *8*(3), 153-168.

Malavasi, D. (2007). Lexical analysis of implicit promotional devices in bank annual reports. *ILCEA*, *9*, 171-184.

Marco, M. J. L. (2000). Collocational framework in medical research papers: a genre-based study. *English for Specific Purposes*, *19*, 63-86.

Martin, D. (1989). *How to prepare the annual report*. Cambridge: Directors Books.

Mercer, M. (2004). How do investors assess the credibility of management disclosures? *Accounting Horizons*, *18*(3), 185-196.

Merkl-Davies, D. M. & Brennan, N. M. (2007). Discretionary disclosure strategies in corporate narratives: Incremental information or impression management? *Journal of Accounting Literature*, 26, 116-194.

Merkl-Davies, D. M. & Koller, V. (2012). 'Metaphoring' people out of this world: A critical discourse analysis of a chairman's statement of a UK defence firm. *Accounting Forum*, *36*(3), 178-193.

Mobasher, A., Ali, A. M., Abdullah, F. S., & Chan, M. Y. (2013). Review of studies on corporate annual reports during 1990-2012. *International Journal of Applied Linguistics & English Literature*, *2*(2), 133-141.

Mobasher, A. & Ali, A. M. (2015). Exploring the macrostructure of management forewords of corporate annual reports. *International Journal of Applied Linguistics & English Literature*, *4*(1), 14-25.

Murphy, A. C. (2013). On "true" portraits of Letters to Shareholders – and the importance of phraseological analysis. *International Journal of Corpus Linguistics, 18*(1), 57-81.

Nam, J. (1994). *Dictionnaire des Noms Simples du Coréen*. Rapport Technique N 46. Laboratoire d'Automatique Documentaire et Linguistique. University Paris 7.

Nam, J. & Choi, L. (1997). A local-grammar-based approach to recognizing of proper names in Korean texts. In Zhou & Church (Eds.), *Proceedings of the Workshop on Very Large Corpora* (pp. 273–288). ACL/Tsing-hua University/Hong-Kong University of Science and Technology.

Neely, E. & Cortes, V. (2009). *A little bit about*: analyzing and teaching lexical bundles in academic lectures. *Language Value*, *1*(1), 17-38.

Nesi, H. & Basturkmen, H. (2006). Lexical bundles and discourse signaling in academic lectures. *Internationa Journal of Corpus Linguistics*, *11*(3), 283-304.

Nielsen, A. E. & Thomsen, C. (2007). Reporting CSR: What and how to say it? *Corporate Communications: An International Journal*, *12*(1), 25-40.

Oxford Dictionary of English. (2005). Oxford/New York: Oxford University Press.

Oxfam. (2010). Corporate social responsibility survey of Hang Seng Index constituent companies 2009. Hong Kong: Oxfam Hong Kong.

Palepu, K. G. & Healy, P. M. (2008). *Business Analysis and Valuation: Using Financial Statements*. Mason: South-Western.

Partington, A. (2004). "Utterly content in each other's company'': Semantic prosody and semantic preference. *International Journal of Corpus Linguistics 9* (1), 131–56.

Patten, D. M. (1995). Variability in social disclosure: A legitimacy-based analysis. *Advances in Public Interest Accounting*, *6*, 273-285.

Piirainen, E. (2008). Figurative phraseology and culture. In S. Granger, & F. Meunier (Eds.), *Phraseology: An interdisciplinary perspective* (pp. 207-228). Amsterdam; Philadelphia: John Benjamins Publishing Company.

Plung, D. L. & Montgomery, T. T. (2004). *Professional communication: the corporate insider's approach*. Thomson/South-Western.

Poe, R. (1994). Can we talk? *Across the Board*, *31*(5), 17-23.

Poole, R. (in press). Good times, bad times: A keyword analysis of letters to shareholders of two Fortune 500 banking institutions. *International Journal of Business Communication*. April 2, 2014, DOI: 10.1177/2329488414525449.

Rayson, P. (2008). From key words to key semantic domains. *International Journal of Corpus Linguistics*, *13*(4), 519-549.

Renouf, A.J. and J.McH. Sinclair. (1991). Collocational Frameworks in English. In K. Ajimer and B. Altenberg (Eds.), *English Corpus Linguistics: Studies in honour of Jan Svartvik* (pp. 128-143). London; New York: Longman Group UK Limited.

Riel, C. B. M. van & Fombrun, C. J. (2007). *Essentials of Corporate Communication: Implementing Practices for Effective Reputation Management*. New York: Routledge.

Römer, U. (2004). Comparing real and ideal language learner input: The use of an EFL textbook corpus in corpus linguistics and language teaching. In Aston, G., Bernardini, S., & Stewart, D. (Eds), *Corpora and Language Learners*, 151-168.

Rowbottom, N. & Lymer, A. (2010). Exploring the use and users of narrative reporting in the online annual report. *Journal of Appied Accounting Research*, *11*(2), 90-108.

Rutherford, B. A. (2002). The production of narrative accounting statements: an exploratory study of the operating and financial review. *Journal of Applied Accounting Research, 6*(3), 25-56.

Rutherford, B. A. (2003). Obfuscation, textual complexity and the role of regulated narrative accounting in corporate governance. *Journal of Management and Governance*, *7*, 187-210.

Rutherford, B. A. (2005). Genre analysis of corporate annual report narratives: A corpus linguistics-based approach. *Journal of Business Communication*, *42*(4), 349-378.

Sandell, N. & Svensson, P. (2016). The language of failure: The use of accounts in financial reports. *Journal of Business Communication*, *53*(1), 5-26.

Schroeder, N. & Gibson, C. (1990). Readability of management's discussion and analysis. *Accounting Horizons*. December, 1990, 78-87.

Scott, M. (1999). *WordSmith Tools version 3*. Oxford: Oxford University Press.

Scott, M. (2004). *WordSmith Tools Version 4*. Oxford: Oxford University Press.

Scott, M. (2008). *WordSmith Tools version 5*. Liverpool: Lexical Analysis Software.

Shin, H. S. (1994). News management and the value of firms. *RAND Journal of Economics*, *25*(1), 58-71.

Sinclair, J. McH. (Ed.) (1987). *Looking Up: An account of the COBUILD Project in Lexical Computing*. London: Collins Cobuild.

Sinclair, J. McH. (1991). *Corpus, Concordance, Collocation*. Oxford: Oxford University Press.

Sinclair, J. McH. (1996). The search for units of meaning. *Textus*, *9* (1), 75-106.

Sinclair, J. McH. (2004). *Trust the text*. London: Routledge.

Sinclair, J. McH. (2007). Collocation reviewed. (manuscript). Italy: Tuscan Word Centre.

Sinclair, J. McH. (2010). Defining the definiendom. In G. Schryver (Ed.), *A Way with Words: Recent Advances in Lexical Theory and Analysis* (pp. 37-47). Uganda: Menha Publishers (U) Ltd.

Sinclair, J. McH. & Mauranen, A. (2006). *Linear Unit Grammar: Integrating speech and writing*. Amsterdam/Philadelphia: John Benjamins.

Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, *32*(1), 38-60.

Smith, J. V. L., Adhikari, A. & Tondkar, R. H. (2005). Exploring differences in social disclosures internationally: A stakeholder perspective. *Journal of Accounting and Public Policy*, *24*(2), 123-151.

Smith, K. T., Smith, M. & Wang, K. (2010). Does brand management of corporate reputation translate into higher market value? *Journal of Strategic Marketing*, *18*(3), 201-221.

Souto, B. F. (2009). Crisis and corporate social responsibility: Threat or opportunity? *International Journal of Economic Sciences and Applied Research*, *2*(1), 36-50.

Stanko, B. B. & Zeller, T. L. (2003). *Understanding the Corporate Annual Report: A User's Guide*. Hoboken: John Wiley & Sons, Inc.

Stanton, P. & Stanton, J. (2002). Corporate annual reports: research perspectives used. *Accounting, Auditing & Accountability Journal*, *15*(4), 478-500.

Stittle, J. (2003). *Annual Reports: Delivering Your Corporate Message to Stakeholders*. Hampshire: Gower publishing Limited.

Stubbs, M. (2001). *Words and Phrases: Corpus Studies of Lexical Semantics*. Oxford: Blackwell Publishers.

Stubbs, M. (2002). Two quantitative methods of studying phraseology in English. *International Journal of Corpus Linguistics*, *7* (2), 215-244.

Thomas, J. (1997). Discourse in the marketplace: The making of meaning in annual reports. *Journal of Business Communication*, *34*(1), 47-66.

Thomsett, M. C. (2007). *Annual Reports 101: What the numbers and the fine print can reveal about the true health of a company*. New York: American Management Association.

Tognini-Bonelli, E. (2001). *Corpus Linguistics at Work*. Amsterdam/Philadelphia: John Benjamins.

Torp, S. (2009). Integrated communications: from one look to normative consistency. *Corporate Communications: An International Journal*, *14*(2), 190-206.

Walsh, G., Mitchell, V., Jackson, P. & Beatty, S. (2009). Examining the antecedents and consequences of corporate reputation: a customer perspective. B*ritish Journal of Management*, *20*(2), 187-203.

Wang, H., Li, L., & Cao, J. (2012). Lexical features in corporate annual reports: A corpus-based study. *European Journal of Business and Social Sciences*, *1*(9), 55-71.

Warren, M. (2009). Why ConcGram? In C. Greaves. *ConcGram 1.0: A Phraseological Search Engine*. Amsterdam/Philadelphia: John Benjamins.

Warren, M. & Leung, M. (2016). Do collocational frameworks have local grammars? *International Journal of Corpus Linguistics*, *21*(1), 1-27.

Wei, N. (2009). On the phraseology of Chinese learner spoken English: Evidence of lexical chunks from COLSEC. *Proceedings of the 29th International Conference on English Language Research on Computerized Corpora (ICAME 29)*, Switzerland, 271-296.

White, M. (2003). Metaphor and economics: the case of *growth*. *English for Specific Purposes*, *22*, 131-151.

Williams, L. S. (2008). The mission statement: A corporate reporting tool with a past, present, and future. *Journal of Business Communication, 45*(2), 94-119.

Wodak, R. (2001). What CDA is about: A summary of its history, important concepts and its developments. In Wodak, R. & Meyer, M. (Eds), *Methods of Critical Discourse Analysis* (pp.1-13). London: Sage.

Wodak, R. (2011). Critical linguistics and critical discourse analysis. In Zienkowski, J., Östman, J. & Verschueren. J. (Eds), *Discursive Pragmatics* (pp. 50-70). Amsterdam: John Benjamins.

Xu, J. (2009). Storied self in another language: A collocational approach to interlanguage identity. *Learner Corpora Conference*. Beijing Foreign Studies University, Beijing, China, 26 December 2009.

Yuthas, K., Rogers, R., & Dillard, J.F. (2002). Communicative action and corporate annual reports. *Journal of Business Ethics, 41*, 141-157.