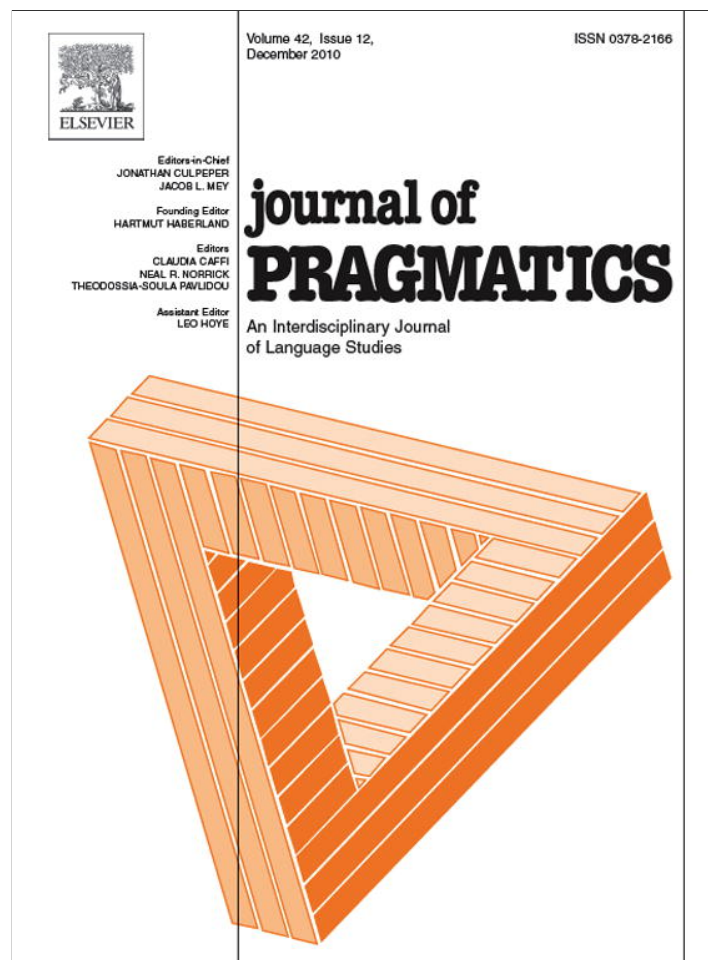


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Metaphorical pattern analysis in financial texts: Framing the crisis in positive or negative metaphorical terms

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ABSTRACT

This paper aims to show that metaphors are a powerful tool to frame economic issues and serve certain political interests. To this purpose, we have carried out a comparative study of the conceptual metaphors of the Global Systemic Crisis in both English and Spanish. The financial crisis has indeed caused havoc in the economic panorama worldwide. Spain has been no exception, but, unlike other European countries, financial problems were initially belittled by the Spanish mass media for several months, until the subsequent outbreak of the crisis in relatively recent times.

Following the current trend of corpus approaches to metaphor analysis (Charteris-Black, 2004; Deignan, 2006; Stefanowitsch and Gries, 2006), our study is based on a corpus of English and Spanish financial articles selected from those published during 2007 and the end of 2008 in the English journal *The Economist* and the Spanish newspaper *El Economista*. The analysis of the metaphors used in these articles will allow us to show how the same economic reality may be differently conceptualized at different points in time on account of different socio-political factors, such as a Government which, on the verge of national elections, refused to reveal the grim state of affairs of the national economy.

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1. The conceptual theory of metaphor and specialized languages

From the publication of Lakoff and Johnson's book *Metaphors we live by* (1980), the study of conceptual metaphor has undoubtedly been one of the major topics in the cognitive linguistics research program. Since its inception, the conceptual theory of metaphor has provided us with hundreds of examples which have demonstrated at length the power of a cognitive construct which pervades every aspect of experience. More recently, Lakoff (2004) has taken the value of metaphors as a matter of thought and action a step further by demonstrating they can be used as a type of ideological weapon serving to frame political or economic issues. The theory of conceptual metaphor has certainly stirred up the world of linguistics, and its applications have been extended to numerous areas such as discourse analysis, pragmatics, and contrastive analysis.

One field where the theory of metaphor has felt at ease has been that of English for Specific Purposes. Specialized languages have, indeed, proven particularly fruitful for the application of the conceptual theory of metaphor. Even if our first intuition about the jargon of experts is that of a plain, unexciting language, most analyses of professional jargon have revealed a rich language that abounds in metaphors. But specialized languages have not only been alluring for advocates of the conceptual theory of metaphor as a prolific source of examples. They have also helped cognitive linguists to verify their

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hypotheses by providing them with a testing field completely different from that of literary language. In this way, the number of studies which have demonstrated the ubiquity of metaphor and its usefulness as a cognitive tool to understand abstract concepts by way of more concrete ones has proliferated in specialized fields, such as those of economics and finance (Charteris-Black and Musolff, 2003; White, 2003), medicine (Tercedor Sánchez, 1999/2000), or computing and Internet (Maglio and Matlock, 1998).

In this paper we focus on conceptual metaphor in one of the most influencing specialized fields nowadays, namely, that of financial language. In the age of globalization, business growth and economic fluctuations, financial issues are a burning topic of international interest. But economists are not the only ones under the sway of the financial world. Linguists have also succumbed to the magnetism of its language, filled with a unique imagery and flexibility. As a result, in recent years we have witnessed a proliferation of studies on the language of economy and finance, with a special focus on the use of metaphor in economic texts (e.g. White, 1997, 2003, 2004; Smith, 1995; Boers and Demecheleer, 1997; Charteris-Black, 2000). The aim of most of the current studies on metaphor from a cognitive linguistics perspective is not to achieve a characterization of the language of finance *per se*, but rather to profile the underlying contextual and ideological motivations that give rise to its linguistic features.

From this point of view, the comparison of the same conceptual metaphor in different languages proves to be a useful methodology to uncover similarities and differences in the conceptualization of economic and financial issues in different societies. So far, the comparison of English with languages such as French and Dutch (see Boers and Demecheleer, 1997), German (see Charteris-Black and Musolff, 2003) or Spanish (see Gómez Parra et al., 1999; Charteris-Black and Ennis, 2001) has mainly revealed a high similarity between the conceptual metaphors found in the languages under comparison, while differences have been mostly reported in the frequency of use of some specific metaphors. For example, Charteris-Black and Ennis (2001) contrasted a corpus of financial reports in English and Spanish during the Stock Exchange crisis of October 1997, and they found that while Spanish favours metaphors based on psychological states, English prefers sailing metaphors. The authors explain such differences in terms of the influence of religion on Spanish and of sailing on English.

The present work is in keeping with this contrastive approach, but differs from the papers previously mentioned in adopting a corpus linguistics methodology. As in some of the literature reviewed here, our aim is to compare the conceptual metaphors found in a corpus of financial articles in English and Spanish in order to discover possible similarities and differences in the construal or conceptualization of the financial events described. However, we also attempt to demonstrate that corpus linguistics can be a powerful tool to research the conceptual theory of metaphor.

2. Corpus linguistics and conceptual metaphor

From the emergence of the Cognitive Theory of Metaphor, the introspective approach was the one traditionally applied to reveal the conceptual mappings of a given domain. Authors, relying mainly on their own intuitions and knowledge of the language, routinely listed a series of expressions typical of the domain under study, and classified them according to the conceptual mappings they instantiated. However, the main shortcoming of this method was that such an eclectic collection of metaphorical expressions was still far from representing real usage and providing empirical validation of the postulated theoretical claims. In order to overcome these limitations, this paper focuses specifically on corpus-based research on conceptual metaphorical mappings (cf. Charteris-Black, 2004; Deignan, 2006; Stefanowitsch and Gries, 2006). Stefanowitsch (2006:2–5) mentions three specific strategies which have been used to extract linguistic expressions instantiating conceptual mappings from non-annotated corpora: (a) searching manually for metaphors, usually by reading through the corpus and extracting all the metaphorical expressions one comes across; (b) searching for metaphorical expressions which contain words from their source domains; and (c) searching for metaphorical expressions which contain words from their target domains. In Stefanowitsch's view (2006), the latter strategy of searching for target domain vocabulary allows researchers to overcome the main shortcomings of the other two, namely, the limitation of the size of the corpus imposed by a manual search, and the need of having the *a priori* knowledge of the source domains which is required in a search for source domain vocabulary.

Stefanowitsch (2006:65) proposes a method which, not only helps to remedy these limitations, but also deals with the main methodological problem corpus linguistics must face when studying metaphorical mappings. While corpora are accessed using word forms, metaphorical mappings are not easily related to linguistic forms and are, thus, not easy to be retrieved automatically. To deal with this difficulty, Stefanowitsch (2006) puts forward what he calls 'metaphorical pattern analysis' (MPA). As he acknowledges, the idea behind the method is simple: one or more lexical items are selected from the target domain under study and a sample of their hits or occurrences are extracted from the corpus. Then, the metaphorical expressions the lexical items belong to are identified as metaphorical patterns, and groups of conceptual mappings are established on the basis of the metaphors they instantiate. For example, in our study, the term 'crisis' was selected as an instance of lexical item from the target domain under scrutiny. A search for its hits in the corpus yielded the metaphorical expression 'the roots of the crisis'. This expression was then identified as the metaphorical pattern 'the roots of the NP'. Following Stefanowitsch (2004:138–139), the identification of a metaphorical pattern was, therefore, based on the syntactic/semantic frame the term occurs in. Furthermore, it was also supported by the existence of similar patterns in the source domain. This allowed us to relate the item from the target domain to those items from the source domain that could be expected to occur in the same pattern: e.g. 'the roots of the tree/plant'. The pattern 'the roots of the crisis' was then considered to instantiate the metaphor THE CRISIS IS A PLANT.

In the present paper, we attempt to apply MPA to the study of metaphors in four financial corpora, two in English and two in Spanish, from two different periods: before the Spanish 2008 presidential elections, when the crisis was being announced in the USA but denied in Spain, and after these elections, when Spain had finally acknowledged the crisis. Financial metaphors have already been researched via traditional methods of manual search in corpora. However, we believe that MPA is more powerful than these traditional methods, and can allow us to represent a more complete inventory of the metaphorical mappings which take place in the target domain of finance. Moreover, we also argue that, by providing a more exhaustive account of metaphorical mappings, MPA can help to demonstrate that metaphors can be used to frame certain political interests.

3. Comparing positive and negative metaphorical language in English and Spanish financial reports

3.1. Our corpus and its contextualization: the Global Systemic Crisis

The LEAP/E2020² was able to anticipate, at the end of 2006, the four main sectors at the centre of the Global Systemic Crisis in the year 2007, namely international trade, exchange rates, the financial sector and energy. Regarding finance, our focus of linguistic analysis, it estimated that at least one large US financial institution would file for bankruptcy before February 2008, sparking off bankruptcies among a series of other financial institutions and banks in Europe, Asia and in various emerging countries. At the present time, recession has already spread all over the European Union, and Spain has played an important part: the Spanish economy followed the US lead with a housing bubble which started to burst at the beginning of 2008, entailing a collapse of the financial bubble and a vast balance of payments deficit. These events fulfilled the predictions that *The Economist* had been voicing over the previous two years, while the world press kept maintaining that the Western world was living an unprecedented era of wealth. As far as the Spanish situation was concerned, *The Economist* had highlighted an unbalanced economy and a low domestic productivity, as well as an imminent property crash.³ In the meantime, the Spanish economic press, on the verge of imminent elections, kept stating that the country would be much more resilient to the crisis than the countries in the Eurozone, and that, in worldwide terms, it would not suffer the catastrophe as deeply as many other countries.

In view of this fascinating informative *tour de force*, we aimed at studying, parallelly, the financial newspapers *The Economist* and *El Economista*. To this purpose, we analyzed two corpora, one from the English periodical and one from the Spanish one. Each corpus consisted of two different subcorpora which revolve around two different stages of the development of the Subprime Crisis. The publications were selected on the basis of their similarity of content: they consisted of quick weekly snapshots of the state of investment funds, raw materials and financial institutions, in Spain, America, and the world at large. Incidentally, monographic economic articles are usually longer in *The Economist* than in *El Economista*, but we chose to select a specific type of shorter news-item, within the so-called 'Market.view' section in the foreign paper, as it adjusted perfectly to our needs of illustration and coherence with the version in Spanish.

The first group of subcorpora (Corpora A, henceforth), one in English, one in Spanish (with 4699 and 4913 words, respectively), extended over the period of the months of June to November 2007, when the notions of the global crisis in the media outside our country were already being voiced and weakly insinuated within our frontiers. The second group (Corpora B, henceforth, with 4830 words in the Spanish version and 5028 in the English one) belonged to the period between September and December 2008, in which the current financial crisis, having at its core the US economic collapse, was already causing havoc in the economic panorama worldwide. The American subprime crisis had severely affected the American banks and the repercussions of the Credit Crunch had reached every corner of the world. Spain, mirroring the globe, was also ailing with financial institutions and faced a political corruption problem of extraordinary proportions, entwined with urban abuse and with an unstoppable wave of town council scandals, which have borne dire consequences for the country's employment and infrastructures.

The analysis and comparison of the metaphors used in these two groups of corpora will allow us to show how the same economic reality may be differently conceptualized at different points of time, on account of different socio-political factors, such as a Government that, on the verge of national elections, refused to unveil to the electorate the grim state of affairs of the international economy and its national repercussions. In fencing off the language of market movements and fluctuations in English and Spanish during a specific period of time, we will attempt to account for the different sensitiveness of the global community to a momentous phenomena such as the Global Systemic Crisis, as opposed to the way in which mass media, the political class and the think-tanks of a country like Spain, reacted to it at the onset of the collapse.

3.2. Methods

Our data were analysed both quantitatively and qualitatively. On the one hand, a quantitative analysis gave us the opportunity to establish a direct comparison between the corpora under study. On the other, a qualitative analysis allowed

² The *Laboratoire européen d'Anticipation Politique Europe 2020*, LEAP/E2020, is a website devoted to European political anticipation, developed in partnership with many different organisations including think-tanks, research centres and individual researchers.

³ View, for example, the two articles on the subject in *The Economist* 3rd of May 2008 edition: "Conquistadors on the beach", and "Spain's economy. Plain sailing no longer".

us to carry out a deeper and more detailed conceptual analysis of the corpus, enabling us to discover similarities and differences between the metaphorical expressions of the two corpora.

In order to carry out a quantitative analysis, we adopted Stefanowitsch's 'metaphorical pattern analysis' (2004, 2006). As previously mentioned, this method focuses on metaphorical expressions which contain lexemes from target domains. Since our aim was to study metaphorical expressions associated with the target domain of economy, we searched for lexemes related to this domain. In order to increase the potential of the method to identify metaphors, 23 key words from the world of finance were searched for in each language. The Spanish words selected were: *acción, activo, banca, bien, capital, crédito, crisis, consumo, compra, demanda, deuda, economía, entidad, finanza, fondo, materia prima, mercado, monetario, producción, recesión, sector, tecnología, venta*. The English words chosen were, similarly: asset, bank, capital, consumption, credit, crisis, debt, demand, economy, finance, fund, goods, market, money, production, purchase, raw material, recession, sales, sector, share, stock, technology. Each entry was searched for all its derivatives; for instance, the Spanish stem '*banc**' yielded occurrences for the lexemes '*banca*', '*banco*', '*bancos*', '*bancario*', '*bancarios*', '*bancaria*', '*bancarias*'. Once the metaphorical patterns were identified, we proceeded to describe the metaphorical mappings they instantiated.

In order to carry out a qualitative analysis of the corpora and describe the metaphorical mappings for each lexeme, we took as a starting point the classification of financial metaphors proposed by Rojo and Orts (2008) and Orts and Rojo (2009) and the classification of political metaphors by Moreno Lara (2008). Although Moreno Lara's study is set in the field of politics, she offers one of the most exhaustive and up-to-date models for the analysis of conceptual metaphor. Furthermore, the field of politics and that of economy share many conceptual features that make them particularly likely to be described by similar metaphors. For example, both politics and economy often involve an element of contest and rivalry that allow them to be conceptualized as a COMPETITION GAME or as a BATTLE: a political campaign or a financial operation may be envisioned as a sports event or a competition, and a politician and a company may be conceived of as warriors in a battle.

Our analysis was organized into three main stages: firstly, we isolated all the metaphorical patterns found in the English and Spanish articles. We gathered a total of 421 metaphorical expressions: 192 in Spanish and 229 in English. Secondly, every metaphorical pattern was individually analyzed, taking into account the nature of the source domain, the type of motivation and the mappings established across the domains, and was subsequently classified under a specific metaphor. For instance, the Spanish metaphorical expression, "*la sequía crediticia provocada por la tormenta [[financiera]] hizo que los bancos se vieran forzados a restringir los préstamos a las empresas*" was analyzed as an instantiation of the specific metaphor FINANCE IS A STORM. Every specific metaphor was then assigned to one of three types based on the taxonomy by Moreno Lara (2008:108): (a) metaphors based on the Great Chain of Being, (b) metaphors based on image-schemas and (c) generic metaphors based on the metaphor ACTIONS ARE EVENTS. In the case of the specific metaphor FINANCE IS A STORM, this metaphor was grouped within the higher-level metaphor ECONOMY IS A NATURAL FORCE, which, in turn, was classified within the generic metaphors based on the GREAT CHAIN OF BEING. Thirdly, we compared the English and the Spanish articles in terms of the number and types of metaphors classified in each category, in order to detect possible similarities and differences in the metaphorical conceptualization of the financial crisis in America and in Spain. We also compared the articles prior to the crisis (Corpora A in both languages) with those written during the economic recession (Corpora B in both languages) in order to reveal possible differences in the use of metaphorical language to serve a certain political or economic interest. To this purpose, we analyzed which of these metaphors were used in a positive or negative sense in each language. The positive or negative value was assigned taking into account the context in which the metaphorical pattern was used. For instance, the previous example "*la sequía crediticia provocada por la tormenta [[financiera]] hizo que los bancos se vieran forzados a restringir los préstamos a las empresas*" was classified as negative because the context yielded a negative view of the economy.

Our hypothesis predicted that the Spanish articles prior to the crisis would have a higher number of metaphors used in a positive sense, whereas the articles written during the crisis would have more metaphors used in a negative sense. Moreover, we also predicted that the English articles would have a higher number of metaphors used in a negative sense than the Spanish articles in both periods. The risk of a systemic crisis was voiced in the USA long before Spanish authorities admitted the existing economic recession. The March 2008 presidential elections led the Spanish government to deny that Spain could be affected by the global economic crisis.

3.3. Results

Tables 1 and 2 below summarize the hits found for each lexeme and its derivatives in each corpus, and specify how many of these hits constitute a metaphoric expression.

Graph 1 shows the metaphors found in Spanish and English, both in Corpus A and B.

The first type of metaphor analyzed was based on what Lakoff and Turner (1989:170) called the GREAT CHAIN OF BEING, which is a cultural model that establishes the attributes and behaviour of natural beings. In this model, natural beings are organized into the following hierarchy: humans, animals, plants and complex and natural objects. In the Spanish corpus, the metaphors based on the GREAT CHAIN OF BEING were the most numerous (see Table 3 below): 54.3% in Corpus A and 62% in Corpus B. The same applied to the English corpus, with 57.8% in Corpus A and 77.7% in Corpus B. As far as the Spanish corpus was concerned, out of the 54.3% of metaphors found in Corpus A, 29.3% were used in a positive sense and 25% were negative. In Corpus B 22% out of 62% were positive and 40% were negative. The specific metaphors found in our Spanish corpus were the following.

As regards the English corpus (see Table 4), out of the 57.8% of metaphors found in Corpus A, 10.7% were used in a positive sense and 47.1% were negative. In Corpus B, 19.4% out of 77.7% were positive and 58.3% were negative, as follows.

Table 1

Lexemes, hits and metaphors in both Spanish corpora.

Spanish word	Corpus A		Corpus B	
	Hits	Met.	Hits	Met.
Acción	1	1	1	0
Activos	3	1	7	5
Banco	3	2	30	14
Bien	3	2	1	0
Capital	7	3	7	3
Compra	3	0	2	1
Consumo	1	0	4	2
Crédito	7	1	6	6
Crisis	12	11	20	18
Demanda	6	4	1	1
Deuda	0	0	3	1
Economía	7	5	8	7
Entidad	4	3	13	6
Finanza	6	3	9	3
Fondo	48	37	9	7
Materias primas	0	0	2	2
Mercado	11	7	13	9
Monetario	2	0	3	0
Producción	7	5	1	0
Recesión	0	0	6	4
Sector	12	5	10	8
Tecnología	0	0	0	0
Venta	1	1	3	3
Total	144	92	159	100
%		63.1		62.8

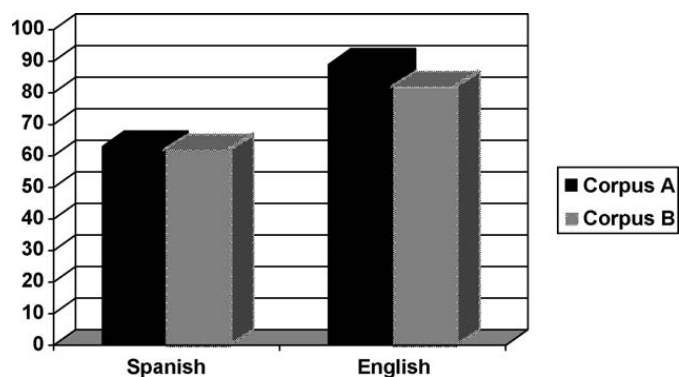
Graph 2 below shows the percentages of positive and negative metaphors based on the GREAT CHAIN OF BEING for both languages in each corpus.

The second type of metaphor was that based on the PATH schema (see Tables 5 and 6 below). Financial operations may be conceived of as a series of activities carried out to achieve certain economic objectives. In our corpus we found four different types of metaphors based on the PATH schema. In general terms, this conceptualization serves as the basis for the metaphor A

Table 2

Lexemes, hits and metaphors in both English corpora.

English word	Corpus A		Corpus B	
	Hits	Met.	Hits	Met.
Asset	4	4	6	6
Bank	15	15	31	29
Capital	0	0	0	0
Consumption	0	0	0	0
Credit	8	8	7	7
Crisis	8	7	3	3
Debt	12	12	6	4
Demand	1	0	0	0
Economy	6	6	7	6
Finance	2	0	1	1
Fund	12	9	10	7
Goods	0	0	0	0
Market	19	18	11	7
Money	14	13	12	6
Production	0	0	1	0
Purchase	0	0	1	0
Raw materials	0	0	0	0
Recession	2	2	3	3
Sales	3	3	0	0
Sector	14	11	11	10
Share	9	8	9	5
Stock	6	5	16	14
Technology	0	0	0	0
Total	135	121	131	108
%		89.6		82.4



Graph 1. Metaphors in both Spanish and English corpora.

Table 3

Metaphors based on THE GREAT CHAIN OF BEING, Spanish corpora.

Spanish Metaphors	Corpus A		Corpus B	
	+	–	+	–
Object	6	3	2	12
Building	0	0	3	5
Natural force	1	9	4	6
Supernatural force	0	0	2	1
Human behaviour	16	3	2	5
Illness	1	4	4	6
Celebration	2	4	1	0
Living being (animal or plant)	1	0	2	2
Machine	0	0	2	3
Total	27+	23–	22+	40–
%	29.3	25.0	22.0	40.0

Table 4

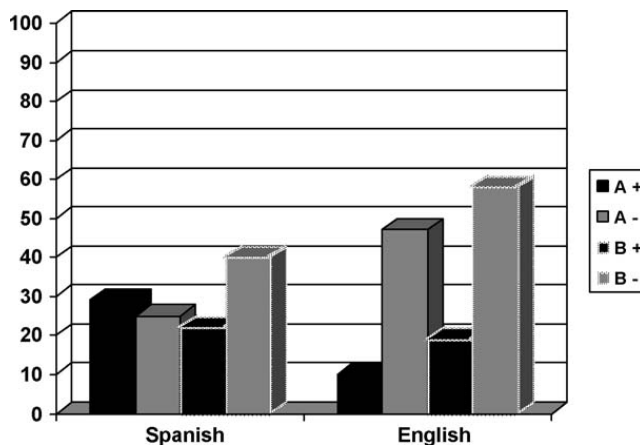
Metaphors based on THE GREAT CHAIN OF BEING, English corpora.

English Metaphors	Corpus A		Corpus B	
	+	–	+	–
Object	5	12	15	14
Building	0	0	0	0
Natural force	0	5	0	5
Supernatural force	0	0	0	0
Human behaviour	7	23	6	24
Illness	1	13	0	18
Celebration	0	0	0	0
Living being (animal or plant)	0	4	0	2
Machine	0	0	0	0
Total	13+	57–	21+	63–
%	10.7	47.1	19.4	58.3

Table 5

Metaphors based on the PATH schema, Spanish corpora.

Spanish Metaphors	Corpus A		Corpus B	
	+	–	+	–
Verticality	8	2	0	8
Source–path–goal	1	0	2	3
Container schema	0	0	2	5
Journey	1	4	2	5
Total	10+	6–	6+	21–
%	8.2	4.9	5.5	19.4



Graph 2. Positive and negative metaphors based on THE GREAT CHAIN OF BEING for both languages.

FINANCIAL PROCESS IS A JOURNEY OR A TRIP TO A DESTINATION. The source domain is given by the basic structure of the SOURCE–PATH–GOAL schema and other additional elements, such as the trajector, his/her intended goal, the trajectory he/she describes, his/her position at a given time, his/her direction at that time and his/her final goal, which may or may not coincide with the intended one, the presence of a vehicle, its speed, the difficulties it comes across, the forces which act favourably or unfavourably and the presence of other possible trajectors (Moreno Lara, 2008:196). Most of the expressions in our corpus which were based on the structure of a journey conceptualized the crisis as an undesired destination and a force which acted adversely, slowing down the speed of economic matters, which were conceptualized as a vehicle. Apart from the SOURCE–PATH–GOAL schema, we found expressions based on the subsidiary VERTICALITY schema and the CONTAINER schema. In the expressions based on the VERTICALITY schema, economic events were conceptualized as forces which drove prices up or down, and the Stock Market was conceived as a vehicle which took them higher or lower. In those metaphorical patterns based on the CONTAINER schema, the economic crisis was conceptualized as a container we had entered and should get out of.

On the whole, the expressions based on the PATH schema were used in a negative sense in both languages. In Spanish, 24.3% of the expressions were negative and 13.7% positive. Moreover, the number of negative expressions increased significantly in Corpus B, with 19.4% being negative vs. the 4.9% of negative expressions in Corpus A, and only a 5.5% of positive ones vs. the 8.2% of Corpus A.

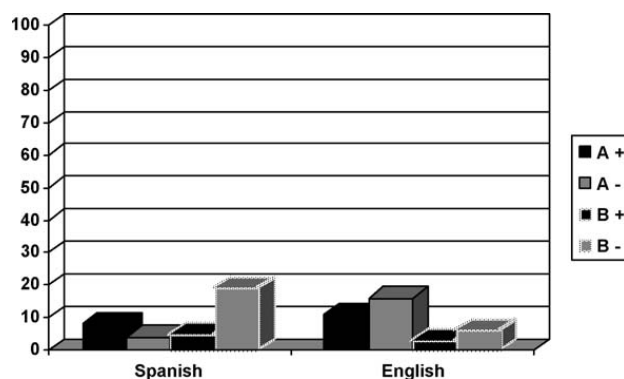
In English, also 22.9% of the metaphorical patterns were negative and 15.2% positive, but we found a large difference between the distributions of negative expressions in each corpus. While the highest percentage of negative patterns in English was detected in Corpus A (16.5% in English vs. 4.9% in Spanish), the Spanish corpora displayed the highest percentage of negative expressions (19.4% in Spanish vs. 6.4% in English) in Corpus B.

Graph 3 compares the total number of positive and negative metaphors based on the PATH schema which were found for each language in all the different corpora.

The third type of metaphor analyzed was based on the generic metaphor ACTIONS ARE EVENTS. This metaphor allows us to conceptualize financial activities as certain events. The expressions located in our corpus which instantiated this metaphor made reference to four types of events, namely, a competition game, a war, show business and medieval tournaments (see Tables 7 and 8 below). From a conceptual point of view, the metaphors of the three events share some features or elements, such as a high degree of competitiveness, a certain spirit of aggressiveness and the search for victory or fame. According to Ching (1993), the GAME and SHOW metaphors pervade American life, since they reflect the prototypical Western citizen. But curiously enough, our corpus contained a greater number of these metaphors in Spanish than in English: 39.27% in Spanish vs. 25.9% in English. Moreover, Spanish used them mostly in a positive way (out of 39.27%, 29.8% were positive and 9.4% negative) while English ones were mainly negative (out of 25.9%, 19.9% were negative and 6% positive). Spanish articles made use of the elements which activated a positive image of the events, such as the winner, the victory, the top value, etc. This

Table 6
Metaphors based on the PATH schema, English corpora.

English Metaphors	Corpus A		Corpus B	
	+	–	+	–
Verticality	13	14	2	1
Source–path–goal	1	2	1	2
Container schema	0	4	1	4
Journey	0	0	0	0
Total	14+	20–	4+	7–
%	11.5	16.5	3.7	6.4



Graph 3. Total number of positive and negative metaphors based on the PATH schema for each language in the different corpora.

Table 7

Metaphors based on ACTIONS ARE EVENTS, Spanish corpora.

Spanish Metaphors	Corpus A		Corpus B	
	+	–	+	–
War	3	2	4	2
Competition game	11	3	3	2
Show business	6	0	0	0
Medieval tournament	1	0	0	0
Total	21+	5–	7+	4–
%	22.8	5.4	7.0	4.0

Table 8

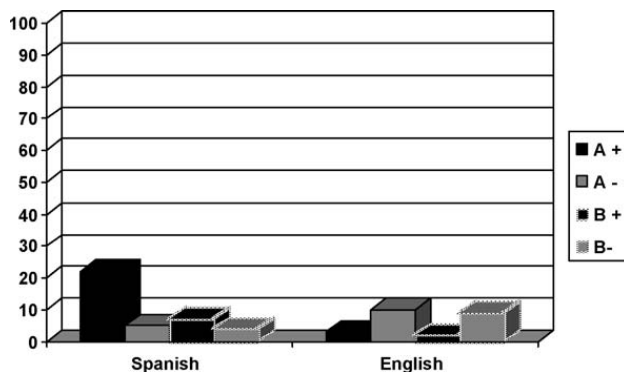
Metaphors based on ACTIONS ARE EVENTS, English corpora.

English Metaphors	Corpus A		Corpus B	
	+	–	+	–
War	1	4	1	8
Competition game	3	9	2	2
Show business	0	0	0	0
Medieval tournament	0	0	0	0
Total	4+	13–	3+	10–
%	3.3	10.7	2.7	9.2

would explain why the number of these metaphors was reduced in Corpus B when the crisis was overtly admitted. As far as the English corpora were concerned, references were mainly made to war and competition in their more sombre aspect, and none whatsoever pointed at other cheerful images like those of show business or a tournament in a medieval kingdom.

Graph 4 below compares the total number of positive and negative metaphors based on ACTIONS ARE EVENTS which were found for each language in all the different corpora.

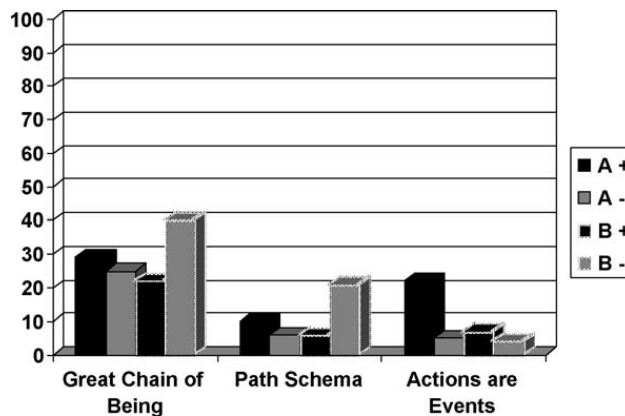
We finally offer two tables and two graphs with the results in terms of total number of metaphors. Table 9 and Graph 5 display the total number of the different types of metaphors used in each corpus for Spanish.



Graph 4. Total number of positive and negative metaphors based on ACTIONS ARE EVENTS for each language in the different corpora.

Table 9
Percentages of the three types of metaphors in the Spanish corpora.

Spanish Metaphors	Corpus A		Corpus B	
	+	–	+	–
Metaphors based on the great chain of being	27	23	22	40
%	29.3	25.0	22.0	40.0
Metaphors based on the path schema	10	6	6	21
%	10.8	6.5	6.0	21.0
Metaphors based on actions are events	21	5	7	4
%	22.8	5.4	7.0	4.0



Graph 5. Different types of metaphors used in each corpus for Spanish.

A significant relation was found between the time of the articles and the use of the different metaphors. The relationship was more significant in the case of the articles after the elections (Fisher exact $p = .053$) than in those before the elections (Pearson's chi-square ($p = .072$)). Both corpora displayed a similar strength of association (Cramer's $V = .239$ for Corpus A vs. Cramer's $V = .243$ for Corpus B).

In order to determine the strength of the association between each type of metaphor, Keppel's modified Bonferroni's correction for multiple chi-square test was used, alpha (new) = .0475. The relationship was only found significant between the metaphors based on the GREAT CHAIN OF BEING and those based on the PATH SCHEMA (Pearson's chi-square $p = .014$). Neither the relationship between those based on the GREAT CHAIN OF BEING and those based on ACTIONS ARE EVENTS (Fisher exact $p = .7434$), nor that between those based on the PATH SCHEMA and those based on ACTIONS ARE EVENTS (Fisher exact $p = .352$) were found significant.

Table 10 and Graph 6 display the total number of the different types of metaphors used in each corpus for English.

In the case of the English texts, the relation between the time of the articles and the use of the different metaphors was only found significant in the texts from the first period (Fisher exact $p < .052$), but not in those from the second period (Fisher exact $p = .684$). In fact, the association between the variables in the texts from the second period was considerably weaker than in the rest (Cramer's $V = .226$ for Corpus A vs. Cramer's $V = .081$ for Corpus B).

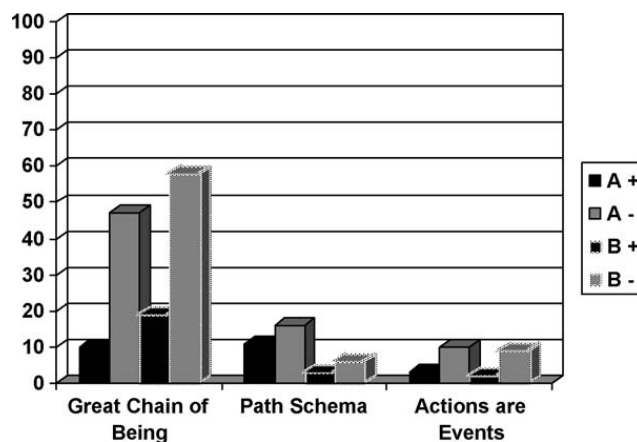
Tables 11 and 12 offer the total percentage of metaphors used in a positive and a negative sense for each language.

Graph 7 below compares the total number of positive and negative metaphors which were found for each language in all the different corpora.

The differences between the number of positive and negative metaphors in Corpus A and B were found highly significant for Spanish (Pearson's chi-square $p = .000$) but not significant for English ($p = .958$).

Table 10
Percentages of the three types of metaphors in the English corpora.

English Metaphors	Corpus A		Corpus B	
	+	–	+	–
Metaphors based on the great chain of being	13	57	21	63
%	10.7	47.1	19.4	58.3
Metaphors based on the path schema	14	20	4	7
%	11.5	16.5	3.7	6.4
Metaphors based on actions are events	4	13	3	10
%	3.3	10.7	2.7	9.2



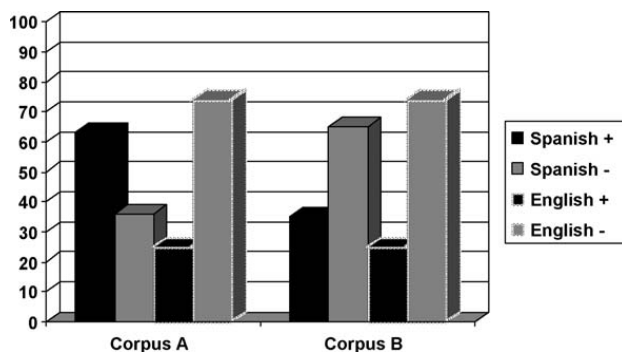
Graph 6. Different types of metaphors used in each corpus for English.

Table 11
Total percentage of positive and negative metaphors, Spanish corpora.

	Corpus A	Corpus B
Positive	85	35
%	63.0	35.0
Negative	34	65
%	36.9	65.0

Table 12
Total percentage of positive and negative metaphors, English corpora.

	Corpus A	Corpus B
Positive	31	28
%	25.6	25.9
Negative	90	80
%	74.3	74



Graph 7. Total number of positive and negative metaphors for each language in the different corpora.

3.4. Discussion

In general terms, the analysis of the Spanish corpora supported our hypotheses, since the articles prior to the crisis had a higher number of metaphors used in a positive sense (63.04% + vs. 36.9% –), whereas the articles written during the crisis contained more metaphors used in a negative sense (65% – vs. 35% +). On the other hand, the corpora in English belonging to the preliminaries and the development of the crisis respectively, showed a similar number of positive and negative metaphors, sustaining our predictions, both qualitatively and quantitatively. Undeniably, the analyses carried out by the English periodical painted a sombre, gloomy picture of the global economy both in its inception and progress, and the percentages were strikingly similar for both periods under analysis (25.6% + vs. 74.3% – in Corpus A, 25.9% + vs. 74% – in Corpus B). This difference in negative metaphorical patterns between both Spanish corpora and the similarity in numbers between the English corpora supported our hypothesis. While the crisis had a marked resonance from the very beginning in the international press, it had a notorious lack of echo in the Spanish mass media.

Another factor worth mentioning was that both languages displayed a high occurrence of image conceptualizations, although the percentage of metaphors was higher in the English corpora (89.6% in Corpus A and 82.4% in Corpus B) than in the Spanish ones (63.1% vs. 62.8%). This fact supports the reputation of *The Economist* as a journal renowned for its usage of rich metaphorical imaging. Nonetheless, the Spanish *El Economista* also used a fair amount of them with a distinct peculiarity in their conceptualization, containing cultural and literary images peculiar to the anthropological reality of Spain (e.g. references to a bull fight with *miuras* in Wall Street or to the TV series *Aquellos maravillosos años*).

A more detailed analysis of the types of metaphors used in each corpora displayed some interesting similarities and differences which provided revealing data on the use of metaphorical language to frame financial issues. In this sense, the types of metaphors identified in both corpora were very similar and could be circumscribed to three generic metaphors: those based on THE GREAT CHAIN OF BEING, those based on the PATH SCHEMA and those based on the metaphor ACTIONS ARE EVENTS. However, the analysis of the number of positive and negative metaphorical patterns which instantiated these metaphors shed some light on the use of different types of metaphors to conceptualize economic issues from a more optimistic or a more pessimistic perspective.

The first finding worth noting in our study was the large amount of metaphors based on the GREAT CHAIN OF BEING, as compared to the other two groups. The metaphors based on this model showed that the number of negative ones was much higher in Corpus B in Spanish (40% – vs. 25% +), and in both Corpus A and B in English (47.1% – vs. 10.7% + in Corpus A, 58.3% – vs. 19.4% + in Corpus B). The English corpora showed within this parameter, higher numbers for HUMAN BEHAVIOUR. The economy, the market, banks, were conceptualized as people: people who were born, had birthdays, developed, suffered, cheated, hated, loved and got their hearts broken; but in addition, the economy – or some of its factors, like shares or funds – was also very frequently conceptualized as an object of exchange and as a physical entity or matter that contracted, tightened, got squeezed. Although in both Spanish corpora the use of metaphorical patterns based on the metaphor ECONOMY IS A NATURAL FORCE was very similar, and higher than in the English one, once the existence of a global crisis was admitted in Spain, there was a higher number of metaphorical expressions which also compared economy to a physical object or entity which was in tension or contracted, and even a building which was collapsing, a plant which had stopped growing or a machine which did not work properly. On the contrary, in those texts before the crisis, economy was more frequently compared to a physical object which was in relaxation or to a human being who behaved well, or at least tolerably, and who enjoyed celebrating birthdays and anniversaries.

In the same way, the metaphors based on the PATH schema were used very differently in the two sets of corpora. The Spanish group showed a 19.4% used in a negative sense in Corpus B vs. the 4.9% of negative ones in Corpus A. In the texts from the first period, economy – or the Stock Market – was mainly conceptualized as a trajector which still moved ‘upmarket’, or as a vehicle which was unstoppable. On the contrary, in the most recent texts, economy was conceived of as a trajector or vehicle which moved downwards, was falling sharply, wandered about without a clear goal or destination, lost speed or suddenly braked or halted (Sp. *frenar*), had punctures (Sp. *pinchazos*) and deflated (Sp. *desinflarse*). The significant relationship revealed in the statistical analysis between this type of metaphor and those based on the GREAT CHAIN OF BEING suggested a strong association between the conceptualization of economy as a natural force, a human being, or a physical object, and its conceptualization as a trajector which could move upwards or downwards, or could have a smooth or troubled journey.

As far as the English corpora were concerned, the highest percentage of negative patterns in English was detected in Corpus A (16.5% – in Corpus A vs. 6.4% – in Corpus B). This difference supported our hypothesis, showing that the international press was broadcasting the crisis long before the Spanish mass media acknowledged the economic disaster. Thus, in the articles of Corpus A in English, markets were already predicted to ‘dazzlingly plunge’ and ‘swoop’, while stocks could only ‘muddily peak’. Moreover, in both sets of corpora, the economic crisis was frequently compared to a container we had entered and needed to get out of and to a brake which was acting on economic growth.

Finally, the analysis of the expressions based on the ACTIONS ARE EVENTS metaphor was also very revealing. Although in this type of metaphor the percentage of negative expressions was quite similar and even a bit lower in Corpus B (5.4% vs. 4%), the number of positive patterns in Corpus A was significantly higher than in Corpus B (22.8% vs. 7%). A closer look at the specific metaphors within this group revealed that, while the number of expressions conceptualizing economy as a war was similar in both sets of corpora, the texts from the Spanish first period attempted to picture a cheerful scenario, containing a higher number of expressions which conceived the economic setting mostly as that of spectacles: a bull fight with *miuras* in Wall Street, an exciting competition game (a horse race or a match where medals were awarded, records were beaten) or a battle to be won by kings of venture capital. Cultural references were made to fiction (for instance, paraphrasing Delibes in “*la sombra de la crisis es alargada*”), TV series (*Aquellos maravillosos años*), pop groups (*La Década Prodigiosa*) and commercials. In the bleaker and more desolated panorama of the English corpus, metaphors were for wars and cruel competitions: the battle was Armageddon and the cultural references alluded, for example, to “the end of the beginning” (Winston Churchill’s words after defeating Rommel’s troops in El Alamein at the beginning of WW 2).

4. Conclusions

All in all, our predictions were confirmed in the sense that the English articles would have a higher number of metaphors used in a negative sense than Spanish articles, validating our presuppositions that, for some time previous to the March 2008 elections, tumbling exchange rates, gaping current account deficits and terrible recessions constituted dire signs of a global downturn with little influence in our economy.

Furthermore, our study has also revealed some of the advantages of this method over other approaches based on the source domain, as outlined by Stefanowitsch (2006:66–69). Firstly, since the target domain is explicitly spelled out in the metaphorical pattern, MPA helps researchers to identify the conceptual mapping which is relevant for a given lexical item. For instance, in the example “*donde se prendió la mecha de la [[crisis]]*” we can easily identify that the metaphorical pattern involves, in this case, the target domain CRISIS, discarding other possible domains for the metaphor “*prender la mecha*”, such as LOVE, DESIRE, etc. In the English corpora, an illustrative example could be “. . . such moves may buy time, rather than treating the roots of the [[crisis]]”, where the metaphor involved discards alternative possibilities like PROBLEM OF DISEASE.

Secondly, metaphorical patterns allow us to establish paradigmatic relations between target domain words and those items from the source domain that would be expected to occur in their place in non-metaphorical uses. Using again the previous example, we are able to establish a relation between the word ‘crisis’ and the words that would appear in the same pattern in non-metaphorical source domain contexts, such as *dinamita, cohete, fuegos artificiales*. This allows us to establish the general mapping ECONOMY IS WAR, but also the more specific one THE ECONOMIC CRISIS IS DYNAMITE. The same reasoning is to be applied to one of the crisis metaphors in the English corpus, where the discarding of non-metaphorical source domains like *weed, tooth, and hair* enables us to focus on the general and specific mappings respectively of ECONOMY IS A DISEASE and ECONOMY IS AN AILING LIVING ORGANISM.

Thirdly, MPA has proven particularly useful for cross-cultural and cross-linguistic comparison. On the one hand, MPA has provided the basis to establish cross-cultural differences between financial texts in English and in Spanish, providing quantitative data which support the hypothesis that financial metaphors in Spanish texts have served to frame political interests. When trying to depict a more light-hearted, as yet unconcerned, economic scenario – as was the case with the Spanish Corpus A – it may also be more useful to deploy images of spectacle, of races, of playful rivalry, where the innermost feelings and workings of the participants are not to be heeded or taken into account, since they prove to be unnecessary for the account of the events. On the other hand, by focusing on individual lexical items, MPA has allowed us to compare not only metaphorical mappings, but also to identify similarities and differences in how these mappings are instantiated in two different languages, thus providing a comparison between translation equivalents. It has, as a result, suggested interesting differences between translation equivalents and even between synonyms in the same language, which need to be researched further. For instance, in Spanish the term *recesión* has been found to instantiate mainly the CONTAINER metaphor, suggesting that it is primarily conceptualized as a PHYSICAL OBJECT, whereas its synonym *crisis* has displayed a much wider number of different metaphors which indicate that it is conceptualized as a complex STATE, which may be conceived of as an ILLNESS, A WAR OR even a NATURAL FORCE.

As a conclusion, we would like to point out that a comparative study of metaphor conceptualization in the financial field cannot be carried out without taking into account local, socio-political factors that, at a specific point of time, affect the economic situation of the countries whose languages are under comparison. We should remember how, even in English, the different economic crises in the last century have had different ways to be conceptualized: the 1929 Crash or Crack, the 1987 Big Bang, the 1990s Wipeout, the 2008 Credit Crunch. The American subprime crisis has severely knocked down the American banks, but the repercussions of the Credit Crunch have reached every corner of the world. Spain, replicating the worldwide mayhem and immersed in a Perfect Storm scenario of its own, is also conjuring a panorama where a sharp braking in the real estate sector has been bred by an unprecedented era of political corruption and urban abuse, with a deadly economic aftermath.

From our results, and as far as the field of economy is concerned, we can conclude that not only linguistic constructions are different between languages, but also the same economic reality may be very differently conceptualized at different points of time, on account of very different socio-political, historical factors. As we pointed out, this paper aims to show that metaphors are also a powerful tool to frame economic issues and serve certain political interests. Indeed, as our study confirms, it seemed as if the only financial system which appeared to remain immune from the disease spread by the subprime crisis was the Spanish one, being, as claimed by the mass media, ostensibly shielded against international economic upheaval by a sound banking system and healthy infrastructures.

By making a comparative study of the conceptual metaphors where the current Global Systemic crisis finds its expression in both the English and Spanish language of finance and commerce, we have attempted to give an account on how politicians ‘frame’ or conceptualize the world in their discourse, showing how the same economic reality may be differently conceptualized at different points of time, on account of different socio-political factors. The sensitiveness to these factors on the part of the linguist is to be called for in the analysis of momentous phenomena such as the Global Systemic Crisis, as well as a profound, informed view of the way in which the mass media, the political class and the think-tanks of a country, react to those.

Appendix A. Our corpora

The Economist

Corpus A:

Article one: On the bubble, 30/9/2007

Article two: Buckle your seatbelts, 15/7/2007

Article three: Heavy bondage, 3/6/2007

Article four: The end of the beginning, 26/8/2007

Article five: A quiet crisis, 9/9/2007

Article six: Green has the blues, 7/10/2007

Article seven: Roller coaster, 4/11/2007
 Article eight: A spike through the heart, 12/8/2007
 Article nine: Unsinkable junk, 24/6/2007
 Article ten: Is Merrill the tip of the iceberg?, 28/10/2007

Corpus B:

Article one: Unintended consequences, 5/10/2008
 Article two: Think long, 12/10/2008
 Article three: Money in the street, 19/10/2008
 Article four: Counting on a catalyst, 26/10/2008
 Article five: The long and short of it, 2/11/2008
 Article six: Any port in a storm, 30/11/2008
 Article seven: Delphic gloom, 23/11/2008
 Article eight: Finding the gaps, 14/12/2008
 Article nine: Look homeward, 7/12/2008
 Article ten: Not single spies but in battalions, 16/11/2008

El Economista

Corpus A:

Article one: Telefónica 'tira' de la renta variable y España se queda con la 'pole' en fondos de bolsa, 23/10/07
 Article two: Décimo aniversario desinflado: los fondos de la 'quinta del 97' son menos rentables, 29/10/07
 Article three: Los fondos de materias primas se 'frotan las manos' con el crudo: suben un 21% de media en 2007, 26/10/2007
 Article four: Los fondos sacan "tajada", 17/05/2007
 Article five: Un octubre de salidas récord: las empresas retiran su tesorería de los fondos, 9/11/07
 Article six: El poder del capital riesgo: Blackstone o KKR, ¿quién es el "miura" de Wall Street?, 6/7/2007
 Article seven: España es uno de los países más expuestos a la crisis de crédito, 12/11/2007
 Article eight: El otro órdago que China esconde en la manga: las claves de su crecimiento, 8/11/07
 Article nine: La banca española capea el temporal, 12/12/2007
 Article ten: La producción industrial española intensifica su desaceleración, 8/8/2007

Corpus B:

Article one: La banca española prevé que los efectos de la crisis financiera 'subprime' lleguen a 2009 ó 2010, 7/08/2008
 Article two: El milagro económico español se "ha terminado" pero la crisis del 92 "está lejos, 5/08/2008
 Article three: Los españoles aún tiran de tarjeta, a pesar del desplome del consumo, 23/08/2008
 Article four: La CE prevé que España entre en recesión el segundo semestre por crisis de la construcción, 10/09/2008
 Article five: Los hosteleros estiman que las ventas del sector bajaron entre un 5% y un 6% entre julio y agosto, 17/09/2008
 Article six: Emilio Botín descarta que el Gobierno tenga que entrar en el capital de los bancos, 16/10/2008
 Article seven: Hay que salvar a la banca porque. el corazón manda, 15/10/2008
 Article eight: La Eurozona acuerda un conjunto de medidas 'a la británica' para ayudar a los bancos, 12/10/2008
 Article nine: El sistema de provisiones de la banca española representa un modelo a seguir para "evitar otra debacle", 10/11/2008
 Article ten: EEUU no comprará los activos tóxicos de los bancos y ayudará a otros sectores, 12/11/2008

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