

Metaphorical patterns and ideology in economic and financial discourse

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ABSTRACT

This paper illustrates the results of a research carried out on the terms and concepts which became widespread during the 2008 financial crisis. More precisely, the purpose of the paper is to assess how and to what extent the ideological stances that emerge from the linguistic analysis of the frame and situational context of these terms and the way in which they are textually construed reflect the socio-economic and historical background of the early 2000s, i.e. the years before, during and after the crisis. Special attention is paid to the discussion of the linguistic devices, e.g. metaphorical expressions, that are used to express ideology overtly or covertly. To achieve this goal, our study is carried out on a set of corpora consisting of texts published between 2004 and 2019. Some corpora are available online, others have been compiled for the purpose of the present research. Using an approach which draws upon cognitive linguistics, corpus linguistics, and, in part, critical metaphor analysis, the analysis of some terms, expressions and their metaphorical meaning shows the rise and fall of the neoliberal ideology in the wake of the 2008 subprime crisis.

Keywords: cognitive linguistics, perspective, financial discourse, metaphor, ideology, neoliberalism.

1. Introduction

Over the last decades, a number of scholars have been concerned with the relationship between language and economics. To some, this relationship consists of “small tropic exchanges or metaphors” (Shell 1978: 7, cited in Osteen – Woodmansee 1999: 5). In fact, the use of different metaphorical concepts to depict changes of mind in the field of economics and finance across time is not just a linguistic issue, but it reveals the clash between

competing ideologies. For example, the prevalence of the metaphor “THE ECONOMY IS A LIVING ORGANISM BODY” over the metaphorical concepts “THE ECONOMY IS A MACHINE” or “THE ECONOMY IS MECHANICS” involves the contrast between different perspectives in economics: *dynamic efficiency* vs. *static efficiency* (Schumpeter 1934), Hayek vs. Keynes, free market vs. welfare economy, disequilibrium vs. general equilibrium theory, neoliberalism vs. government-controlled economy.

Consequently, the change in ideologies entails a variance in the language of economics at the semantic and pragmatic levels. In other words, the same term can take on different meanings depending both on its temporal and spatial “context”, i.e. the “when” and “where” in which the term is used, and the “perspective”, i.e. the “how”, “the way in which a scene is viewed, including the relative prominence of its participants” (Evans 2007: 162). Accordingly, there is no absolute ideology. There is no ideology which is falsier (or truer) than another, “*For ideologies are not simply lies; they are truthful statements about what a man thinks he sees*” (Schumpeter 1949: 349).

Against this background, in this paper we present the results of a study which focuses on the representation of neoliberal ideology in texts published before, during and after the 2008 financial meltdown. The research is carried out on sets of corpora embracing a period which goes from 2004 to 2019. Considering that an ideology can be defined “as a verbal image of the good society and of the chief means of constructing such a society” (Downs 1957: 96), we focus on the textual representation of ideologies through metaphor which, linguistically speaking, is the verbal image *par excellence*, as it is able to turn social abstractions, such as concepts, into concrete words, thus contributing to the construction of social, cultural and economic reality. To this end, we adopt the notion of metaphor as developed by Lakoff – Johnson (1980), Lakoff (1987), and in cognitive linguistics (Evans – Green 2006). We also draw upon other analytical tools designed by cognitive linguistics, such as *frame*, *situational context* and *construal*, as they contribute to interpreting the ideology transmitted by the pragmatic meaning of specialized terms. Our survey methodology resorts to recent studies in the field of corpus-based approaches to metaphor and ideology.

The paper is organized as follows. Section 2 focuses on recent theories developed in the framework of cognitive linguistics about the relationships between language and ideology and the role played by metaphor as a linguistic vehicle of ideologies. Section 3 describes data and methods. Section 4 contains the case studies of the research, while Section 5 provides some concluding remarks and suggestions for further research.

2. Theoretical background

This paper seeks to cast light on the ideological meaning conveyed by some economic terms which spread in the 2000s, before, during, and after the meltdown that upset the American (and the global) financial system. For the purpose of the present article, by “ideology” we mean not so much “political ideology”, a view which originates from Marx and Engels, but rather as a set of “values” and “attitudes” whereby “ideological differences are fundamentally differences in *valuations*, both abstract and concrete” (Levi Martin 2015: 9). As “ideology is ubiquitous in our lives” (Hawkins 2001: 35), we are neither fully aware of it, nor do we possess the linguistic devices to describe it in a concrete way. Yet, our words and expressions have some ideological intent, which is implicit and arises from the meaning that we give to words depending on the position that we take. In the same vein, Nescolarde et al. claim that “language is understood from repeated patterns in the use of sets of beliefs” (2017: 8).

Ideology is, among other things, “the process of production of meanings, signs and values in social life” (Eagleton 1991: 1). It is a system of ideas, that are verifiable, through which the dominant political power is legitimated. It is a system of symbols and beliefs that characterize a culture. In economics, for instance, different ideologies correspond to different worldviews or belief systems, as for example free trade, mercantilism, and *laissez-faire* economics. As a consequence, the relationship between ideology and language is investigated from the perspective of cognitive linguistics. This relates “ideology in language” to conceptual and linguistic phenomena that establish specific, though often unconscious, views on the world (Dirven et al. 2012).

Cognitive linguistics provides different tools for the analysis of ideology in language, including cognitive grammar and metaphors. Metaphors can be *overt* or *covert* resources of ideology. As a matter of fact, a systematic function of metaphors is “highlighting and hiding” (Lakoff – Johnson 1980), whereby we tend to focus only on certain aspects of a metaphor while disregarding others. Very often a metaphor, which is widely acknowledged to convey a specific meaning (*overt*), may hide a different sense and even carry some underlying ideology (*covert*) as a result of the context in which words and sentences are used and of the perspective that the speaker/writer takes on in that context, i.e. the particular point of view that we adopt in order to determine the nature of metaphor used to represent the target domain.

Two more analytical tools developed by cognitive linguistics to investigate ideology are *ideological deixis* and *iconographic frames of reference*. Both are pragmatic tools, which are used to convey the ideological meaning. In the first case, ideology is closely related to the function of deixis, whereby through ideology speakers *point to* time, space and their cultural beliefs and values. Ideological deixis involves the manipulation of various conceptual tools in order to achieve a given rhetorical effect on the target audience (Dirven et al. 2012).

Iconographic reference is “a common mode of textual representation” whereby speakers, involved in a familiar context, use simple images to tell about their experiences and insinuate their own ideological claims and value judgments, which are expected to be shared and understood by their interlocutors (Hawkins 2001: 32).

We will use these theoretical instruments to demonstrate that economic terms, even though they are highly specialized words – and, accordingly, they are presumably characterized by denotation, monoreferentiality, lack of emotion, impersonality, objectivity, and syntactic complexity – can be, in fact, ideologically connotated, i.e. vehicles of ideas, values, ideals or doctrines. Considering that the ideological density of a text and its terminology result from the communicative acts taking place between users, the type of communication and information exchanged, as well as the socio-cultural, historical and economic setting in which interactions occur, “semantic knowledge” cannot be separated from “pragmatic knowledge”. As cognitive linguists contend, knowledge of word meaning and knowledge of word use work together to form our encyclopaedic view of meaning, i.e. our knowledge of language as it is grounded in human interaction with others (our social experience) and the world around us (our physical experience) (Faber – San Martín Pizarro 2012: 213). So, our concern is not only about what words *mean*, but also about what words *do*. This is also true for specialized knowledge and specialized terms. The latter take their pragmatic meaning from the specialized context in which they are used. As a result, the same term can have different meanings, or better still, three pragmatic dimensions, *frames*, *situational context* and *construal*, which vary according to the context in which the term is adopted.

Frames represent the way in which we schematise our experience and structure our knowledge, by relating elements and entities which refer to a particular culture, situation or human event. Linguistically, frames are constructed by means of attributes and relations between attributes.

Situational context is a *relational construct*. It represents the network of relations between the objects, on the one hand, and between the objects themselves and the agents who use or act on them, on the other hand.

Construal can be defined as “the way a language user chooses to ‘package’ and ‘present’ a conceptual representation as encoded in language, which in turn has consequences for the conceptual representation that the utterance evokes in the mind of the hearer.” (Evans – Green 2006: 576). This process is performed by choosing a particular “focal adjustment”, i.e. the linguistic organization of a scene in a specific way. The construal of language depends on the speaker’s perspective, the speech acts that the speaker performs and his or her communicative intention when he or she uses one term instead of another with a similar meaning. Therefore, it is not only the linguistic aspect that characterizes the utterance, but the whole socio-cultural context the speaker belongs to, e.g. the shared knowledge, expectations related to speaker perspective, and intentions. What is most interesting for the purpose of this paper is that “another way that construal can be understood is through the use of specialized language as a way of conveying ideology” (Faber – San Martín Pizarro 2012: 201). It may provide an alternative way of describing specialized concepts.

Against this theoretical background, we intend to demonstrate the following:

1. economic terms are vehicles of ideologies;
2. economic terms which are general nouns take on specialized meaning when they occur in combinatorial patterns in particular contexts;
3. the transformation of general nouns into economic terms is the result of processes of metaphorization and iconographic reference.

The evolution of economic thought goes hand-in-hand with the evolution of language, and they both embody the development of ideological stances. Given the status of economics as a *soft science*, and its dynamic nature, economic language proves to be endowed with a significant semogenic (meaning-making) power, i.e. the capability to generate new meanings from existing words in response to new, sometimes unexpected, events. This is, in other words, the process of metaphorization proper: general nouns are transferred to the economic and financial field where they are turned into terms with a specialized meaning. However, unlike most cases of Language for Special Purposes (LSP), relating mainly to the *hard sciences*, it can be argued that economic terms are semantically and pragmatically variable and, accordingly, ideologically connotated. The ideological stance depends on the “position” in time and space that economic and financial terms have.

It follows that the same term can have different connotations, either positive or negative, as a result of the “perspective” adopted by the addresser and the addressee in communication.

3. Methodology and data

Methodologically, our research draws upon recent studies on empirical, corpus-based approaches to metaphor and ideology (Stefanowitsch 2006a, 2006b; Berber Sardinha 2011; Muelas Gil 2019). Following Berber Sardinha (2011), our first step was to decide whether to adopt a “whole corpus-based” or a “concordance-based” corpus linguistics metaphor approach. The former consists in a hand-based retrieval of all the metaphors which occur in the whole corpus, whilst the latter implies the extraction of the concordances relevant to specific items and the investigation of the metaphors occurring in the immediate co-text of those items.

As this choice depends on the size of the corpus and the purpose of the research, we opted for a combination of both approaches for at least a couple of reasons. After surveying all the corpora and identifying the words and phrases which, in our opinion, could be parts of metaphorical expressions, we extracted the sets of concordances in which those words and phrases occurred as keywords in context. More specifically, to carry out this study we adopted a method based on Stefanowitsch’s analysis of “metaphorical pattern” (2006a, 2006b), by which he means “a multi-word expression from a given source domain (SD) into which one or more specific lexical items from a given target domain (TD) have been inserted” (2006b: 66). This method, which “relies mainly on the analyst’s knowledge and intuition” (Muelas Gil 2019: 230), allows researchers to work with both metaphorical expressions that contain target domain items and with metaphorical expressions that do not (Stefanowitsch 2006a; 2006b). Moreover, in accordance with Charteris-Black’s *Critical Metaphor Analysis* (2004) and Muelas Gil (2019), we mainly focus on the metaphorical pattern and its immediate co-text. In some cases, the co-textual range included larger chunks of texts since we also considered all lexical units which might be semantically related to the key word or phrase even though they did not occur in its immediate co-text. The metaphorical patterns and their co-text proved to be loaded with ideological stances, which in some cases were manifest, in others hidden.

To achieve this goal, the investigation was carried out on a set of corpora: some available online, others built from scratch for the purpose of the present

research. Various criteria were followed, including topic and time: corpora were selected and compiled, accounting for texts produced in a delimited time span, which included the years before, during and after the crisis.

The corpora available online, and chosen to carry out the research, are presented in Table 1 and Table 2 below. Some are broken down by time spans into different sub-corpora:

Table 1. *Corpora available online broken down by time spans* (available at www.english-corpora.org)¹

Corpus	Words
	1,001,610,938
COCA ^a 1995-2019	1995-1999 126,247,476
	2000-2004 127,661,503
	2005-2009 124,036,796
	2010-2014 124,374,418
	2015-2019 123,771,007
COHA ^b 2000-2010	58,958,902
NOW ^c 2010 to-date	10.6 billion+
iWeb ^d	14 billion

^a Davies, M. (2008) *Corpus of Contemporary American*

^b Davies, M. (2010) *Corpus of Historical American English*

^c Davies, M. (2016) *News on the Web*

^d Davies, M. (2018) *The Intelligent Web-based Corpus*

Table 2. *Corpora available online broken down by time spans* (available at www.sketchengine.eu/)²

Corpus	Words
<i>The English Web</i> 2008	2,759,340,513
<i>The English Web</i> 2012	11,191,860,036
<i>The English Web</i> 2013	19,685,733,337
<i>The English Web</i> 2015	15,703,895,409

¹ More details about the corpora are available at www.english-corpora.org

² These corpora belong to the TenTen corpus family, which includes comparable corpora in more than 30 languages. The corpora are very large in size (over 10 billion words per language) and consist of texts from various registers and genres. Other details are available through Sketch Engine.

Five DIY corpora were also compiled, collecting texts taken from both US and international institutions and bodies; they included reports, speeches and other genres which were purposefully produced during the years of the crisis. Table 3 below provides data about the corpora.

Table 3. DIY Corpora

Corpus	Words
IMF ^a (2007-2010)	1,783,826
SPEECHES ^b	324,313
BIS ^c	641,378
BOC ^d	965,595
USCH ^e	177,130

^a The IMF corpus consists of documents published by the International Monetary Fund (IMF) between 2007 and 2010, namely Global Financial Stability Reports (951,171 words), Working Papers (67,906) and World Economic Outlooks (764,749).

^b This corpus consists of 86 speeches delivered by international economists, politicians and sociologists, including Bernanke, Draghi, Trichet, Dudley, during and after the 2008 crisis.

^c The BIS corpus consists of papers published by the Bank for International Settlements between 2007 and 2009.

^d The BOC corpus consists of eight books about the crisis downloaded from www.archive.org.

^e The USCH corpus consists of 31 hearings held by the US Congress between 2005 and 2010.

These corpora were analyzed with Wordsmith Tools 7.

Lastly, other corpora were compiled with the Sketch Engine suite. Using the “New Corpus” option, the corpora were built by typing specific words and phrases in the “web search”, i.e. *subprime*, *2008 financial crisis*, *meltdown*, *housing bubble*. The resulting corpora were analyzed via the Word Sketch and Concordance tools available on Sketch Engine.

4. Case studies

Very briefly, the 2008 housing bubble was the outcome of both the neoliberal forces and the housing affordability policy started in the 1990s. The crisis is also known as the subprime meltdown as it was the result of the lenders’ granting of mortgages to subprime borrowers, “NINJA” (*No Income, No Job*

or *Assets*), i.e. people “who could not otherwise qualify for traditional loans because of a weak credit history or other disqualifying credit measures” (Kenton 2018).

The crisis can be ascribed to at least to two ideological stances:

1. the ideology of the “sanctity of ownership”, also known as “affordable housing”, dating back to Clinton’s 1995 “National Ownership Strategy”; and,
2. the neoliberal ideology which advocated for selfishness, self-interest, and supported deregulation based on the belief that markets were self-correcting.

Besides the socio-economic and political impact, the crisis was also characterized by the development of a wide range of terms and expressions which permeated the economic and financial discourse; some of them were already known to the public, others were coined as a result of the contingencies and the financial creativity which “was a lot ‘like cheap sangria’” (Financial Crisis Inquiry Commission 2011: 6).³ *Collateralized debt obligations* (CDOs), *asset-backed securities* (ABS), *mortgage-backed securities* (MBS), *SIVs*, *CMOs*, are only some of the terms, abbreviations and acronyms which formed the 2008 crisis vocabulary.

In this paper, we will analyze *free*, *subprime*, *toxic* and other terms and phrases which became widespread during the crisis. The study of these terms and the metaphorical patterns in which they occur shed light on the supporting views as well as the critical stances towards neoliberalism in the panorama of the subprime meltdown and in the wider climate of the socio-cultural and economic failure of the neoliberal and free-market ideology.

4.1 Case study 1: *Free*

This subsection is devoted to the case study of *free* and its context. In the 2005-2009 span in the COCA corpus, which roughly covers the period before, during and after the crisis, *free* is collocated with a variety of nouns: *free trade*, ranking first (568 occurrences) in the frequency list; *free market*, ranking fifth (261) and *free markets* ranking fourteenth (121). For the sake of brevity, we will focus on *free market(s)*, and exclude other expressions.

³ This expression was used by Michael Mayo and is quoted in The Financial Crisis Inquiry Report (Financial Crisis Inquiry Commission 2011).

Concordances from COCA (2005-2009) show contrasting attitudes towards “free markets”. On the one hand, the “free market” is seen positively, as *efficient, fair, trustworthy*. It is a source of prosperity, a way of enhancing innovations, “an extraordinarily effective means of distribution, and it promotes commutative justice in the economic sphere”. On the other hand, the “free market” is seen as a danger, the “most disastrous thing in modern America”. Significantly, this view about the “free market” as a negative phenomenon increases as we come closer to 2008, the year of the subprime bubble. The “free market” is seen as a lie, the doctrine that exacerbates the disparity between the rich and the poor, and it turns positive again from 2009 on, when it is seen as efficient and “effectively self-regulating”, a solution to all social problems including health, a source of wealth, a spur to competition.

These data are confirmed by corpora available via Sketch Engine. *The English Web* corpora (Table 4) show that “free market” occurs in the same context as *federalism, deregulation, globalization, capitalism, individualism*, as well as *Friedman* and *ideology*. It is represented as something out of control, as its pre-modifiers suggest: *free market* is *unfettered, unregulated, unbridled, unrestrained, untrammelled* and *unencumbered*. It must be specified that this view is worldwide, it is not restricted to the US; this demonstrates that the neoliberal doctrine spread across the globe, as happened with the crisis. A remarkable aspect is the co-occurrence of *free market* with *ideology*; it generally occurs in combination with another lexical element, an adjective, to further identify the neoliberal ideology: *capitalist, utopian, government-out, anti-government, libertarian, neo-liberal*.

Table 4. Concordances of *free market* – Source: *The English Web* corpora

This was also the way I see	“free market”	fundamentalism ideology was used by
International corporations use	“free market”	capitalism ideology to justify globalization and
This denial reflected the dominance of the	‘free market’	Monetarist ideology, which wanted smaller
but to brutally promulgate its right-wing,	free market,	government-out ideology , with the goal of
Anything that challenges	free markets	and neo-liberal ideology in any meaningful way
The Government were and are driving	free market	political ideology through the heart of our NHS.

The reason, of course, is simply because it is	free market	economic ideology which, as we discussed in.
Three decades of	free market,	neoliberal, ideology are being torn up,
developments coincided with the rise of	free market	economic ideology in the 1980s,
because it reflects our	free market,	libertarian ideology.

4.2 Case study 2: Market fundamentalism

There are various expressions that occur in the context of the term “free”. One that stands out in the list is *market fundamentalism*, as sample data from the BOC corpus (Table 5) show. This expression, aka *market economism*, is used as an alternative to *free market ideology* and neoliberalism.

Table 5. Concordances of *market fundamentalism* – Source: BOC

an indispensable history of the emergence of	market fundamentalism	(or “economism”) in the United States
one can’t (logically) believe in	market fundamentalism.	Even after the multibillion-dollar bail-out
Suddenly, advocates of	market fundamentalism,	who talked about the virtues of “price
that Lehman Brothers collapsed, may be to	market fundamentalism	(the notion that unfettered markets, all
These institutions pushed	market fundamentalism	(“neo-liberalism,” it was often called),
And these will fail. The poor suffered under	market fundamentalism.	Trickle-down economics didn’t work.
partly because rugged individualism and	market fundamentalism	have eroded any sense of community
the IMF’s policies (often based on the flawed	market fundamentalism	that I have discussed in this chapter) led
“The God That Failed: Free	Market Fundamentalism	and the Lehman Bankruptcy,”
with the crisis of 2008, the debate over	“market fundamentalism”	the notion that unfettered markets by
The IMF might claim that it believes in	“market fundamentalism”	that markets are efficient, self-correcting,

The concordance lines partially show the frames which the expression pertains to. It includes a network of attributes, which are metaphorical representations of the negative attitude towards the neoliberal doctrine, such as *flawed, rugged individualism, pernicious social consequences, lack of community, threat to the poor, eroded*.

Other lexical items in the situational context provide a different view of *market fundamentalism*, which witnesses the fact that neoliberalism was seen as something ethically good, e.g. *morality, liberty, sound money, honest money, commodity money, low interest rates, peace, free trade, balanced budgets, removal of the bankers' monopoly over credit, prosperity and economic growth*.

These expressions consist of overt metaphors that contribute to constructing our understanding of the early 21st century neoliberal ideology. Better still, the various attributes embody two competing perspectives on the neoliberal ideology underlying the subprime meltdown.

However, there are other meanings implicit in the term “fundamentalism” and its situational context, which are examples of a covert conceptual metaphor: THE ECONOMY IS RELIGION. As such, the economy is construed as a form of extremist ideological expression (Nagata 2001). This is evidently a case of iconographic frame of reference in that ideology is imposed on the individual and collective conscience by selecting and networking attributes and elements taken from the religious iconography, as both the BOC corpus and the COCA corpus confirm. There are people or institutions that believe in or trust market fundamentalism, worship at its “altar” or see it as a miracle or even as God.

Like other expressions of ideological extremism, market fundamentalism has its “idols that enslave us” and “dominates much of today’s society”. It “absolutizes the value of capital above all other values” and, finally, causes pains to people, mainly the poor, who are victims of this “trickle-down economics”, thus ending up with a “loss of faith” even by those who had initially advocated it.

4.3 Case study 3: *Subprime*

Subprime is one of the outstanding words, perhaps the most representative of the economic vocabulary of the 2008 financial crisis. It is no coincidence that the economic events, which shocked the US market as well as world finance, are also known as the subprime meltdown.

The survey of subcorpora compiled from the COCA corpus according to the time spans 1995-1999, 2000-2004, 2005-2009, 2010-2014 and 2015-2019, provides interesting data. The 2005-2009 subcorpus was taken as the benchmark against which the other periods of time were compared, since the years from 2005 to 2009 are those which mainly experienced the crisis with the culmination in 2008.

Unsurprisingly, data show that the normalized frequency⁴ (per million words) of *subprime* in the 2005-2009 span outnumber the normalized value in the subcorpora relevant to the other time spans, i.e. before and after the crisis years (Table 6).

Table 6. Raw and Normalized Frequencies of *subprime* in COCA sub-corpora by time spans

	1995-1999	2000-2004	2005-2009	2010-2014	2015-2019
Raw Frequency	20	86	581	291	340
Normalized Frequency	0.14	0.59	4.01	2.00	2.35

The higher number of occurrences of *subprime* between 2005 and 2009 reflects the centrality of the issue in the period. More interesting than the quantitative aspects are the qualitative data relevant to the co-text of *subprime*.

In the years before the outburst of the crisis, *subprime* was mainly used as a premodifier of *loan* and *lending*, and, what is more, showed no negative connotation: *subprime* had a neutral connotation and was associated with *car lending*. The same neutral discourse prosody characterizes *subprime* in the years between 2000 and 2004, with some change as far as its application scope is concerned: from 2000 onwards *subprime* becomes associated with *mortgage* and *home lending*, and in at least four cases is defined as *predatory*.

In the years 2005-2009, the number of occurrences of the term *subprime* increases exponentially, skyrocketing to 581. Interestingly, *subprime* occurs in patterns such as *subprime loans*, *subprime mortgages* or *subprime assets*, which are fundamentally depicted as *bad*, *risky*, *high-risk*, *shaky*, *iffy*, *suspicious* and *toxic*.

⁴ As corpora were of different sizes they were normalized per one-million words, using the formula $FN = FO(10^6)/C$ where FN is the normalized frequency, FO is the observed frequency, and C is the corpus size (<http://www.thegrammarlab.com/?p=160>).

Table 7. Concordances of *subprime* – Source: COCA

to sustain themselves in the wake of the	toxic subprime asset	waterfall,
it was buying up a lot of these	toxic, subprime loans	that seem to have poisoned the
This layering of risk is what made	subprime loans so toxic.	“Even if you have only two of those

Although the number of occurrences of *subprime* almost halves in the post-crisis years (2010-2014 and 2015-2019), the term still tends to be associated with negative words, e.g. *risky, bad, high-risk*, both in its left and right context, thus generating typical patterns in which *subprime* is followed by *crisis, meltdown, fiasco, mess, fallout, debacle, collapse, implosion, woes*.

The negative representation of *subprime* is confirmed by other corpora, although statistics prove substantially different in quantitative terms. The survey of the English corpora available via Sketch Engine, notably the English Web 2008, 2012, 2013 2015, shows that the normalized frequency of *subprime* is higher in 2012 and 2013 than in 2008 (Table 8).

Table 8. Raw and Normalized Frequencies of *subprime* in The English Web corpora (Sketch Engine)

	The English Web 2008	The English Web 2012	The English Web 2013	The English Web 2015
Raw Frequency	6,083	37,855	48,659	11,495
Normalized Frequency	2.20	3.38	2.47	0.73

Raw and Normalized Frequencies of *subprime* in The English Web corpora (Sketch Engine)]

The different numbers of occurrences for *subprime* between the sets of COCA sub-corpora and the Sketch Engine corpora, which amounts to a normalized value ratio of 1.31 (COCA) < 2.11 (Sketch Engine), may be ascribed: first, to the fact that the former is smaller in size than the latter; and second, to the fact that COCA includes texts in American English only, whereas Sketch Engine corpora consists of texts representative of English varieties across the world. Nevertheless, both share some significant aspects, including the patterning of *subprime* with typical terms such as *crisis, fallout, implosion, woes, mess, fiasco*.

Other corpora, including documents produced in the pre- and post-crisis periods of time, also suggest this negative portrait of *subprime*. The NOW corpus, for instance, which contains documents until the 2010s, shows that besides *bad* and *risky*, subprime loans and mortgages are also *predatory* and, above all, *toxic*.

Table 9. Concordances of *subprime* – Source: NOW

main underwriters of the poisonous and	predatory subprime mortgages.
relieve banks of toxic assets tied to	subprime mortgages

This negative perspective of *subprime loans* (*mortgages, borrowers, borrowing, lenders*) is further confirmed by the investigation of corpora compiled for the purpose of the present research. In the IMF corpus (2,162,278 tokens), the negative impact of the subprime market cannot be grasped immediately; it emerges from the analysis of the wider co-text of the *subprime* + *NOUN* pattern, which involves *distressed, liquidity shock, crisis, delinquency, turmoil, fallout*.

Interestingly, the analysis of the expression *subprime lending* in the USCH corpus displays the important role that it plays in molding the iconographic frame of reference which lays the foundations of the ideology *par excellence* in America: the *American dream*. One of the “core tenets” of this dream, which is also evoked in the corpus, is the *dream of home ownership*.

In fact, a thorough analysis of both the Sketch Engine corpora and the COCA timespan-based sub-corpora below discloses the intrinsic contradictions of this dream, and of the failure of the housing commodity as a way of fulfilling that dream of equity and equality, as the concordances of *subprime* and its context show (for the sake of brevity, only a few samples from the various corpora are reported below):

Table 10. KWIC of *subprime* – Source: English Web 2008, 2012, 2013 (enTenTen08; enTenTen12; enTenTen13)

	Black and Hispanic homebuyers who get mortgages from	“subprime”	lenders are 30% more likely to get higher rate loans than other borrowers
2008	Black and other minorities disproportionately fall into the category of	“subprime”	borrowers” because of lower credit scores,

2008	Several studies have found that black and Hispanic borrowers were more likely to be steered into high-cost	Subprime	loans than other borrowers
2012	Within these high	Subprime	tracts, black women took a disproportionate share.
	Consider the	Subprime	mortgage crisis. It required a population – communities of color – whose economic and political vulnerability made them easy targets for exploitative loan products, ...And racial inequity is growing
	The report found that, nationally, black borrowers living in the most racially segregated metropolitan areas were more likely to receive	Subprime	loans than black borrowers living in the least racially segregated metropolitan areas.
2013	The	Subprime	mortgage crisis has taken a particularly harsh toll on Black homeowners and threatens to stall the further expansion of the Black middle class.

Table 11. KWIC of *subprime* – Source: COCA 2000-2004 sub-corpus

Studies show that banks continue to discriminate against minority consumers and neighborhoods of color by either denying them mortgage loans or pushing them into riskier	“subprime	mortgages. Realtors continue to “steer” black (and to a slightly lesser extent, Latino) families [...]
employees had called black clients mud people and	Subprime	lending ghetto loans.
Indeed, “whoever says	‘subprime	debtor’ says black as well.”
black families have been the objects of targeted marketing by	Subprime	lenders. This is, to some extent, the legacy of the redlining practices of banks of the 1970s.

Then came those high-cost	Subprime	loans whose fine print ensured that you would never be able to pay them back. In a case of “reverse redlining,”
levels of segregation create a natural market for	Subprime	lending,”
Black homeowners were most fleeced by	Subprime	mortgages,
African Americans nationally were far more likely than whites to rely on	Subprime	(as opposed to prime) mortgage loans.
This “racial gap in	Subprime	lending” held across income levels

Table 12. KWIC of *subprime* – Source: COCA 2005-2009 sub-corpus

A disproportionate share of	Subprime	borrowers are black or Hispanic,
WOMEN ARE 32% MORE LIKELY TO BE TARGETED FOR	SUBPRIME	LOANS THAN MEN. //
Black and Hispanic families have gotten a disproportionate share of	Subprime	lending,

Table 13. KWIC of *subprime* – Source: COCA 2010-2014 sub-corpus

So they were disproportionately harmed by the	Subprime	market
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Table 14. KWIC of *subprime* – Source: COCA 2015-2019 sub-corpus

the crash was caused by minorities getting	Subprime	loans, something forced on institutions by the Clinton administration’s anti-redlining Community Reinvestment Act (CRA) requirements.
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Table 15. KWIC of *subprime* – Source: NOW corpus

African American women became disproportionate victims of the	Subprime	lending and subsequent foreclosure crisis after 2008
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Table 16. KWIC of *subprime* – Source: iWEB corpus

African Americans who were steered into expensive	Subprime	mortgages were the hardest hit.
The discriminatory placement of wholesale borrowers in	subprime	loans, also known as “steering,”
borrowers who were steered into loans based on race or national origin, a practice that systematically placed borrowers of color into	Subprime	mortgage loan products

Words and phrases occurring in the context of *subprime*, such as *black*, *Afro-American*, *Hispanic borrowers*, who are *targeted*, *hard hit*, *harmed* or *victimized by* as well as *steered into subprime loan*, are instances of specific iconographic frames of ideology. Specifically, the association of *subprime* with Afro-American and Hispanic people, as well as with women and minorities in general, evokes ideologies of race and gender disparity. *Subprime* refers to both an economic condition and a socio-cultural status, which induce racial and gender discrimination. This is suggested by means of orientational metaphors (Lakoff – Johnson 1980), since words and verbs accompanying subprime borrowers involve both economic and geographical displacement and, accordingly, socio-economic downgrading.

By “steering” black and Latino as well as female homeowners into subprime loans, US banks committed deliberate racial mischiefs against people of these social categories who, between 2008 and 2009, lost their homes to foreclosure. In other words, African-American and Hispanic families were definitively “led into” poorer conditions as they lost their homes and savings.

In fact, subprime borrowing also marked a concrete movement towards geographical segregation. In those years, the dominant iconographic reference representing the physical condition of racial discrimination was the “redlining” of Black and Hispanic neighborhoods by banks. Redlining represented the mapping of inequality; it meant keeping minorities away from the élite and, accordingly, the achievement of “the ideology of white supremacy, which is deeply engrained in white American culture in the United States”.⁵

⁵ These words are taken from a conversation between Joe T. Darden, author and professor of geography at Michigan State University, and Mike Wilkinson, a reporter for Bridge Magazine (available at <https://www.michiganradio.org/post/redlining-s-legacy-how-discriminatory-housing-policies-continue-shape-michigan-s-metro-areas>).

Interestingly, there is another remarkable iconographic reference, which subprime and its broader context build up, as the survey of both the COCA corpus and Sketch Engine corpora shows. The iconographic reference is grounded in facts, persons and metaphorical expressions conjuring up the spectre of the 2008 financial crisis. The visual image standing out in the text samples included in the various corpora is that of a “canary in a coal mine”, a proverbial metaphor, serving as an early warning of some danger. Accordingly, the subprime mortgage meltdown in the US is perceived as the “canary in the coal mine” of the banking crisis in 2007 and the 2008 financial crisis.

Table 17. KWIC of *canary in the coal mine* – Source: iWEB corpus

but it was private debt that was the	canary in the coal mine.	In the early days of the crash, it was called the “subprime crisis,”
The proverbial	canary in the coal mine	usually resides somewhere in the credit market (think of LBOs in 1989 and subprime mortgages in 2007)...
Bear’s hedge funds turned out to be the proverbial	canary in the coal mine.	Wall Street firms such as Lehman Brothers,
If the subprime lending boom had never happened, we would still be roughly where we are today. Call this the	“canary in the coal mine”	theory.
The Subprime Crisis:	Canary in a Coal Mine?	

4.4 Case study 4: *Toxic assets*

The USCH corpus displays the co-occurrence of *subprime* with *assets*, especially in the string *subprime and other impaired assets*. The latter are company assets that have “a market value less than the value listed on the company’s balance sheet” (Investopedia). Put simply, subprime loans or borrowings are entered as *negative assets* into the balance sheet. However, more interesting than this is how *assets* are ideologically represented during the 2008 financial crisis.

The term *asset(s)* was a keyword in the economic and financial crisis of 2007-2008, as the number of occurrences in various corpora suggests. More significant than this is the way in which *assets* are represented when this term keeps company with *subprime mortgage or loans, mortgage-backed securities*, and other instruments and products delivered during the period.

A survey of COCA shows a high number of *assets*, premodified by *bad* (50), *troubled* (36) and, above all, *toxic* (94), in the time span between 2005-2009. These data are much more significant if compared against the 2010-2014 period, where *assets* are mainly *risky* (11) and *toxic* (16), and even more so, if compared with the 2015-2017, where any negative connotation of *assets* has totally disappeared.

Special attention should be paid to the pattern “toxic assets” and its situational context. A study of the 2005-2009 period, as compared to the 2010-2019 time span in the COCA corpus, shows that the pattern was significantly widespread during the crisis (the normalized frequency is 0.83 in 2005-2009), whereas it decreases between 2010 and 2014 (normalized frequency = 0.16) and definitely disappears after 2015 (normalized frequency = 0.02). In the period before 2004, as COCA demonstrates, *toxic* was generally associated with environmental objects, or was used in the domains of physics and chemistry. It occurs as an attribute which generally premodifies concrete products or commodities, e.g. *chemicals, waste, substances, materials, gases, compounds, pesticides*.

Referring to the 2004-2009 period, the metaphorization process, whereby *toxic* comes to be associated with *assets* and other financial items, captures the movement which took place in the field of finance at the ideological level during the 2008 bubble. To be more precise, the expression *toxic assets* seems to embody the failure of the neoliberal ideology, which occurred both in the economic and political domains. *Toxic assets* are the “housing market” itself, seen as the cause of the collapse of Wall Street and a multitude of banks and companies, as the following concordances show:

Table 18. Concordances of *toxic assets* – Source: COCA

the sacrificial lamb and take the blame for the	toxic assets	that would drag down the net value of the firm.
the mortgage-backed securities and other	toxic assets	that were drowning Wall Street and the credit markets.
but the country’s banks have been saddled with	toxic assets	since the real estate bubble collapsed.

Geithner still doesn't know how to value these	toxic assets	killing the banks.
to come in and to help buy out the	toxic assets	in these banks are going to be scared off.
what they're going to do with the banks and the	toxic assets	and all that zombie stuff we get scared about
And for one, you know, these	toxic assets,	toxic investments that have brought down so many of the banks

The co-text surrounding “toxic assets” suggests the climate of fear and panic that characterized those years, whereby it was necessary “to get toxic assets off the (bank) books”. The whole financial system was “polluted by *toxic assets* that could trigger another meltdown”; exposure to toxic assets was *lethal*. They could even *strangle* the credit market, cause the *clogging* of bank books or likely *hobble* their peers.

The BOC corpus confirms these data. *Toxic assets* generally occur along with other terms that contribute to making up the situational context in which the crisis erupted. Thus, *toxic assets* are also *poisonous*, *obscure*, *abnormally sophisticated*; like plagues, they *contaminate* other countries across the world. Therefore, they must be *fenced off* or *ring-fenced*, or even *purged*.

This metaphorical image of assets as toxic also occurs in the corpus of speeches about the 2008 crisis and the IMF corpus and is consistent with Warren Buffet's characterization of derivatives, and other assets in general, as “financial weapons of mass destruction”. In these corpora, not only do *toxic assets* appear as *impaired* – thus suggesting a physical and structural deficiency – but, first and foremost, they evoke the fear of a *zombie apocalypse* of the financial world and the turning of neoliberalism into a “zombie ideology”.

4.5 Case study 5: From *toxic assets* to *zombie stocks*

Since 2007-2008, the term *toxic*, which seems to be one of the favorite epithets used to label the failure of the neoliberal ideology in economics and finance, has been gradually replaced by the word *zombie*.

Data extracted from NOW⁶ (Table 19) show the frequent occurrence of the word *zombie* as a premodifier of *banks*, *firms*, *companies*, *enterprises*, *corporations*. For example, *zombie companies* (562 raw occurrences) and *zombie*

⁶ More details are available at <https://www.english-corpora.org/now/>.

enterprises (170 raw occurrences) are two of the most frequent expressions on the *zombie* + NOUN pattern in the corpus.

Table 19. Concordances of the “*zombie* + NOUN pattern” – Source: NOW

Zombie companies, zombie debt and a zombie economy . With interest rates at an all-time low,
Consider some of the terms that those fears produce: zombie banks, zombie economies, zombie
The banks remain in a zombie vegetative state, with the Federal Reserve providing the IV and the
We live in a time where we talk about ‘ zombie banks ’ and ‘ zombie corporations ’ – the economic
the original problem has metastized, and the banks are still in zombie status, but with share prices

What are in fact *zombie companies, banks, or corporations*? A corpus built with Sketch Engine, using *zombie, companies, firms, assets, neoliberalism, economy* as seed words, provides interesting data, casting light on the metaphorical meaning of the word *zombie* and its ideological value when it is used along with economic and financial concepts. Basically, *zombie companies*, aka *zombie stocks*, are “companies that earn just enough money to continue operating and service debt, but are unable to pay off their debt” (Investopedia). *Zombie companies* are “indebted businesses” or “risky debtors and investments”; they are the “scourge” of neoliberalism.

Metaphorically, they are represented as the last phase of neoliberalism, its end. An interesting aspect which emerges from the corpora is that *zombie companies* are associated with Schumpeter’s concept of “creative destruction”, which, in a word, means “crisis”. This is intriguing in terms of the iconographic frame of reference construed around the neoliberal ideology, in that such an association evokes two simultaneous, clashing stances towards the term “crisis”. On the one hand, if “creative destruction” is considered from a Schumpeterian perspective, the zombie phase represents the crisis of neoliberal ideology, where “crisis” is meant as “failure”. It is the failure of the free market, of the *laissez-faire* ideology; it is the failure of innovation and wealth achieved through social and economic disequilibrium. By contrast, if “creative destruction” is considered from a Marxist perspective, the term “crisis” takes on a positive connotation. It is intended in the sense of “change”, since to Marx “crises are never more than momentary, violent solutions for

the existing contradictions, violent eruptions that re-establish the disturbed balance for the time being” (Marx 1981 [1883]: 357 in Holgersen 2015: 694).

6. Concluding remarks

This study has revealed some important findings which shed light on economic terms as vehicles of ideological perspectives. Accordingly, any study of the ideology conveyed by specialized terms in the economic and financial domain gives rise to the need for contextualization. When new ideologies emerge, existing terms and words are combined in patterns which take on new meanings to respond to socio-cultural and economic events, thus exploiting what Halliday (2003) refers to as the semogenic potential of words. Very often, these new semantic formations are the result of metaphorization processes and other rhetorical tropes. This means that ideologies are the result of pragmatic rather than merely semantic processes, as argued by cognitive linguists.

Another interesting aspect that has emerged from the research is the kind of “freedom” that economics enjoys in terms of analytical methods. Because of its status as a “soft science”, the language of economics is a dynamic language, which continuously grows and varies as markets diversify and become more internationalized. This “soft” nature of economics, however, does not mean that the language of economics is not subject to terminological constraints. Rather, it implies freedom of perspective or standing.

Although a good deal of linguistic studies maintain that terms are monoreferential, we have shown that they have a variety of semantic potentialities, which depend on the perspective adopted to look at the term itself. Moreover, terms and specialized expressions may be loaded with ideology which is conveyed via metaphors and/or other pragmatic resources designed by cognitive linguistics, such as iconographic frames of reference.

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