



Elena Esposito

# *The Future of Futures*

The Time of Money in Financing and Society



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Elena Esposito

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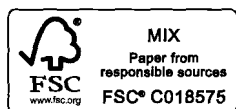
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## **Praise for *The Future of Futures***

*'This is a brilliant and timely book that shows how financing is centrally implicated in the very unpredictability and uncertainty it purports to master. With the incisiveness characteristic of her style and writing, Esposito reads economics in innovative ways that disclose the hidden premises by which financial instruments trade and consume the prospects of the future.'*

– Jannis Kallinikos, London School of Economics, UK

*'Elena Esposito's analysis of financial markets and of their recent decline is radically different from the analyses which can be found in economic journals or books. Financial operations are reduced to their basic dimensions: time and money. Under this perspective, what is sold on financial markets is the possibility for the creation of commitments in the course of time, the possibility for the combination of these commitments with one another, and the identification of chances for the achievement of profit opportunities through the creation of specific combinations. The author argues that the recent crisis of the financial system was caused by oversimplified visions of the future and of risk leading to the consequence that options were not available in the present because all possibilities had been used up by the future. This oversimplified vision of the future imploded, and trust with it. The state tried to reconstruct options for the future in order to open up new possibilities and chances for learning. The author does not deliver recipes on how to prevent severe crises of the financial system in the future. Yet, her concept facilitates understanding of how financial futures are opened up or closed and thus provides insights into basic principles on whose basis future opportunities can be kept open and trust can be maintained.'*

*Innovative reforms of the financial system can only develop on the basis of unconventional analyses. Elena Esposito's book contains an analysis of this kind.'*

– Alfred Kieser, Mannheim University, Germany

*'Within the cacophony of voices trying to explain the recent financial crisis, Elena Esposito's voice sounds clear and deep. Steering away from simplistic condemnations and equally simplistic prescriptions for betterment, she connects the very invention of derivatives to that eternal human hope – of controlling the future. While the task is impossible, the attempts never stop, and the very process of attempting it brings some consolation. And while derivatives can be seen, claim sociologists of finance, as performative, that is shaping the future they promise to control, even this is far from certain. Esposito's fascinating and beautiful work is an important contribution to the sociology of finance, a subdiscipline of sociology that took on itself an extremely important task of explaining how the finance markets really work.'*

– Barbara Czarniawska, University of Gothenburg, Sweden

*'Elena Esposito's book is a fundamental analysis of time in economics. With economic rigour underpinned by sociological reasoning, she explains the futures market more clearly than is possible with economic analysis alone. Economic concepts are considered in terms of time – actors deal in the present with future risks by transferring these risks to the present situation. As a result, we get more options and more risks at the same time: at present. No equilibrium will balance these trades because of the asymmetry of time: our actual decisions deal with our imagination of the future, that is, with the future of the present, but the results will be realized in the presence of the future – different modalities of time. The book is a sound reflection on modelling time in economic theory, a "must" for economists.'*

– Birger P. Priddat, Witten/Herdecke University, Germany

*'The Future of Futures is an original and intellectually provocative book which forces the reader to think. Esposito's essay fulfils two rather different functions. On the one hand, it brings new and persuasive arguments to bear against the erroneous thesis that the present financial crisis is merely due to human mistakes and to some specific government failures. On the other hand, the book suggests that only by reconsidering the role of time in the economy is it possible to make full sense of the crisis and to re-orient in a desired direction the future movements of money. It is a well-known fact that traditional economics has always adhered to a spatial conception of time, according to which time, like space, is perfectly reversible. Whence its inability both to understand how economies develop and to prescribe adequate policies. The author's proposal is to move steps ahead in the direction of an analysis of an economy in time, where both historical time and time as duration can find a place. Esposito's well-written, jargon-free book will capture the attention of anyone seriously interested in the future of our market systems.'*

– Stefano Zamagni, University of Bologna and Johns Hopkins University,  
Bologna Center, Italy

# Foreword

**Bob Jessop**

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It is a great pleasure to write the foreword to Elena Esposito's innovative and timely book. This addresses so many complex issues, ranging from the foundations of social science and the defining features of modern societies to the rationality of financial irrationality and questions of crisis management, in such a closely and consistently integrated manner that it is impossible to summarize briefly. As such, it is not a book to be skimmed – nor, indeed, a book to be read just once. It is a book to be studied for its rich and wide-ranging insights, its demolition of received wisdoms, its creative critiques of economics as a discipline, its innovative conceptualizations, its reflections on the actuality and inactuality of time, and its brilliant exploration of the enigmas, paradoxes and contradictions of economic organization.

The general approach and its creative power will probably not surprise those familiar with, and favourably inclined towards, the sociological systems theory of Niklas Luhmann and his followers in the German-speaking world and elsewhere. And it should certainly not surprise readers who are familiar with the author's other work, which has developed this approach, applied it in several detailed sociological enquiries, and addressed important contemporary as well as historical issues. But the present work illustrates the power of the approach when applied with the author's intellectual capacities and craft skills to the increasingly complex, paradoxical and (ir)rational world of the economic system. In addition to providing an excellent and accessible introduction to the basic ideas of sociological systems theory, Elena Esposito develops them significantly in three main directions. First, she gives a provocative account of the complexities, interweaving and contingencies of time, temporality, memory and future-oriented actions, and shows how this transforms conventional understandings of economics as an activity and as a discipline. Second, based on these arguments, she develops innovative views on the nature of contemporary society as a *Risikogesellschaft* (interpreted here as 'society at risk', a better translation than the conventional term 'risk society'), the role of markets in dealing with uncertainty and risk, the significance of

money and the monetization of social relations in this respect, and, relatedly, the significance of derivatives in creating as well as handling risk. And, third, she comments on the nature of the recent global economic crisis, its causes, its consequences, and the prospects for the re-regulation of the market economy and the steering of its effects on the political system in the light of her diagnosis of the peculiar features of the market economy and the ways in which it handles the problems of (future) time.

In short, this is a work that is theoretically rigorous, intellectually challenging (in the sense of provocative rather than difficult to read), descriptively and analytically powerful, and, while clearly highly topical, has profound implications for understanding past pasts as well as future presents. Those familiar with my own work will rightly surmise that there are also areas where I disagree with the author's analyses or would want to supplement them with further remarks on the contradictions (as well as paradoxes) of contemporary capitalism. But one learns far more from engaging with the work of serious scholars with whom one has productive disagreements than one does from reading the umpteenth iteration of a position that one shares. I recommend Elena Esposito's book in this spirit. Put your intellectual certainties at risk by engaging with it, observe your reactions to its insights, paradoxes and analyses, learn from its challenging, paradigm-busting arguments, and contribute thereby to the development of science and the critique of economics.

# Contents

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<i>Foreword</i>	xi
Bob Jessop	
Introduction	1
<b>PART I THE TIME OF MONEY</b>	
1. Time in economics	9
1. The indeterminacy of the future	9
2. Uncertainty as a resource	11
3. Temporal inconsistency in economic behaviour	14
2. Time binding	18
1. The future and the past of the temporary present	19
2. The order of time	21
3. Past presents and future presents	23
4. The structure of time	25
5. The uncertainty of the future and the uncertainty of others	28
6. The risk society	31
3. Economy is time: needs and scarcity	37
1. The infinite needs of an uncertain future	38
2. Selling time	40
3. The scarcity of goods and the scarcity of money	43
4. Money	47
1. The mysteries of money	48
2. A medium to defer decisions	49
3. The social reference of money	51
4. The homogenization of goods and persons	54
5. The value of the goods and the abstraction of prices	56
5. The market	62
1. The efficient market is unpredictable	63
2. Information in incomplete markets	65
3. The observation of observers in the mirror of the market	68
4. The paradoxes of competition and the rationality of risk	71
5. The creation of money by selling time	72



6.	Financial markets	76
1.	Investment or speculation?	77
2.	Gambling and irrationality	78
3.	The risks of the observation of risk	82
4.	The uncertainties of the regulation of uncertainty	84

## PART II THE TIME OF FINANCE

7.	Paper finance and the relationship to the world	93
1.	Revolution or continuity?	94
2.	Constructivism in economics	96
3.	The society of second-order observation	100
4.	The rationality of financial irrationality	103
8.	Derivatives	107
1.	Selling possibilities	108
2.	The trade of risk	111
3.	The price of uncertainty	113
4.	Instability as a problem and as an opportunity	115
5.	Arbitrage, hedging and speculation	118
9.	The production of the future	122
1.	A new form of money	123
2.	The present future and the future present	126
3.	Management of risk and not managed risk	129
4.	Predicting the unpredictable	131
10.	Trading uncertainty	134
1.	The calculation of risk in a risk-neutral world	135
2.	The mysteries of volatility	137
3.	The rightness of a wrong formula	141
4.	The order of risk and the disorder of the markets	144
5.	The volatility smile	148

## PART III THE TIME OF THE CRISIS

11.	The crisis – presuppositions	155
1.	The sale of the future and its problems	156
2.	Love of risk	157
3.	Repackaged and redistributed risks	159
4.	The regulation of the markets to themselves	163
5.	Mark-to-what?	166
6.	The present use of the future	168

12. The crisis – evolution	174
1. The problems of transgression and the problems of the rules	175
2. What happened? The consequences of prudence	177
3. Techniques of de-futurization	179
4. The return of the future to the present	181
5. Deflation: giving up the future	183
13. The crisis – regulation	188
1. The real costs of the paper crisis	189
2. How to govern the economy that governs politics?	191
3. Controlling the lack of control	193
4. The management of change	196
 <i>References</i>	 202
<i>Index</i>	213

# Introduction

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The title of this book is deliberately ambiguous. However, the use of ambiguity is not merely a rhetorical device. In the course of this book, I hope to show that the ambiguity belongs to the analysed phenomena. It leads to both their difficulty and their fascinating appeal. Because of this ambiguity, the book and its title can be read in many different ways.

Why the future of futures? Futures stand here for derivatives as a whole, as options, swaps, forwards and others, all of which are financial instruments. These instruments – some new, others less so – deal with the future. They settle in the present the buying or selling of something (which may be anything) that will take place at a future date. That is, they are contracts that deal today with tomorrow's decisions. As we shall see, they allow the build-up of a very complex way of trading future constraints. In this way, we speak of the future of futures first in terms of how derivatives see and shape the future, as a technical and formalized way of dealing with time and its use, having consequences for society as a whole.

This is not to say that derivatives claim to foresee the true course of things. On the contrary, they are tools that react to the uncertainty and instability of the world, to the growth of risk and the resulting alarm. Derivatives turn to the future, a future that they know they don't know, and promise to protect against risks. They promise to deal in the present with the fear of the unpredictable future (which remains unpredictable). The resulting dilemma is that nobody knows if this works. Experience shows that the very attempt to protect against risks produces other risks, and that the future can actually come out differently as a result of the use of derivatives. The future of a world that uses derivatives, therefore, is different from that which would have come about if the derivatives had not existed. In this sense, the future of futures is to be understood as that future which results from the trade with futures, the future produced by futures, the future of our 'financialized' world.

There is yet a third meaning to the title, one that has become all the more urgent as a result of the financial crisis in 2008. What will happen to derivatives in the future? What will be the future of futures, if we have seen that the forms of management, their regulation and their theorizing are inadequate, and should be more thoroughly reviewed?

Here the subtitle, which presents the proposal of the book, comes

into play. In order to understand these tools (and the state of finance in general), it is necessary to reconsider the role of time in the economy, that is, the time of money. Therefore we shall deal with time, with how the economy handles and regards time, and with how time changes according to the way it is used. Finally, we shall focus on the general meaning of time, that is, on how it varies depending on how it is used and how it is understood. While some clues are already available, and belong to the traditions of economics and of sociological theory, the experience of finance in the last decades could lead us to reconsider these more effectively.

It is clear that, today, financial markets deal primarily with the management of time in the form of risk, with the sale of risk and the play of influences, and with the links that exist between the way the present sees the future and the way the future actually turns out. What is sold on financial markets is the possibility of the creation of constraints in the course of time, the possibility of the combination of these constraints with one another, and the possibility of the achievement of profit opportunities. These are often based on the present use of the future, even if (or just because) the future remains unknown. Later, we shall see precisely how this happens. The point here is that, if one doesn't take the role of time into account, then all the movements of finance seem purely virtual, inconsistent, and often led by an incomprehensible irrationality (which is how financial markets are usually presented). Financial markets are presented as the realm of gambling and unreasonableness, despite the use of computers and of complex and formalized techniques. If we do not take the role of time into account, we shall be constantly surprised by the unforeseen movements of the markets, when in fact we should be able at least to expect these surprises, in so far as we produce them, at least in part, through our own behaviour.

Classical economists have pointed out that money, in its essence, is time. We do not need it in order to satisfy present needs (if we satisfied them, we would no longer have any money), but in order to assure ourselves in the present of the indistinct nebula of possible future needs. We do not know what we shall need tomorrow, but we would like to be equipped to get it, if and when it is required. To this end, if we are able to pay, we will. It is because the possible needs of the future have no limit that we need money, and why that money is never enough. Financial markets 'play' with these future possibilities, in that they intertwine and compensate, imagine and deny, and produce present profits out of the unpredictability of the future. As a matter of fact, financial markets do in a more daring way what money has always done. They deal with and trade in tomorrow's uncertainty today.

To understand financial markets, therefore, one should start from

the time of money. Then it becomes clear how money works in general. Approaching economics from this point of view compels one to give up many assumptions about it (at least in its mainstream version), that have the great advantage that they can be formalized. Economic models rely on specific ideas about the markets' equilibrium, about the distribution of information, about the role of prices, about the meaning of chance, and about the rationality of operators, all of which overlook the role of time as a fundamental factor in economic behaviour. These ideas result in relatively stable and seemingly reliable models. In the last several decades, these assumptions have been heavily criticized, especially since the financial crisis, given that they have been shown not to work. It has become apparent that different instruments are needed. My proposal is that, by starting with time, one can see what has not worked and why, and try to reconstruct the movements of money in another way.

The crisis, with all its problems and difficulties, could thereby become an opportunity. The drama of the financial upheavals in the course of 2008 drew attention to the markets and to the esoteric tools they use. In turn, these have become a topic in the mass media, in politics, in public opinion and, of course, in economics. Money is fashionable. It is the central theme of our time, a theme that both involves and concerns everyone. One could also say that, in this sense, our time is 'the time of money', a time obsessed with money, seeking to find in its movements a clue to the general sense of society and its evolution. This rather new attention to the financial dynamic, given the urgency of the looming crisis and its threatening and as yet uncontrolled effects, could become an opportunity to approach and reflect on money in new and different ways that could overcome the crystallizations that have recently blocked it.

This is the time of money in finance. Both mysterious and urgent, it seems to get out of the technical sphere and affect society in general. We now move to the last reference of our title, the time of money in society. This involves very different areas, such as politics, media, organizations and families, all confronted with a new form of money and a new construction of time. The time of money could help us to understand what time has become in our society, a society obsessed with time, yet a society that understands time less and less. Here our discourse leaves the economic and financial sphere and concerns itself with what has become the 'risk society', a society no longer defined by its past or its traditions, but turned to the future. This orientation is adopted as a means of preparation for that future, but this produces further uncertainties.

The popularity of risk relies predominantly on the urgency of the future. Compared with other formulas, like those of industrial society, capitalistic society or modern society, with their respective 'post-' formulations

(post-industrial, post-capitalistic or post-modern) that define the present by looking backwards, the risk society defines itself by looking forward. It sees the present as preparation for an unknown future, a future that might make us regret what we are either doing or not doing today. We are left to speculate about whether or not things will happen as we expect and predict them to, and to acknowledge that what seems prudent today could tomorrow cause damage and lead us to wish we had done otherwise. It is always possible that we could discover that the future for which we are prepared is quite different from the future that actually comes to be. Despite our ability to recognize this possibility, we still make decisions without ever being sure that they are the correct ones, precisely because the future remains uncertain. Risk, therefore, is a deadlock situation. We worry about that which cannot be avoided, and the more one thinks about it, the more one realizes that any and all decisions (and also, therefore, any and all non-decisions) are risky. In this sense, safety is an illusion.

The situation seems irresolvable, and the theory of risk has inherent difficulties in producing proposals. While it succeeds in denouncing what is wrong when one binds the future, it fails to indicate what could be construed as right. The risk society feels pressed by a future that seems already to have started, but remains the prisoner of a present that cannot know such a future. The real problem is time, in that, as long as we don't know how to handle the future (or, for that matter, what future it is that we are to handle), we cannot manage its risks.

The time of money, however, shows how the future can be produced by the very operations that try to anticipate it. This is something financial markets do continuously. They sell derivatives that set the conditions for the future in the present, and look forward to how things will continue once the future is accomplished. In buying an option, one generates a constraint that influences the course of time and contributes to the creation of what will become true in the future. The future is both bound and open at the same time, and markets deal with these constraints and their transformations. They deal with risk and its management. Understanding how these movements transpire, then, helps us to understand the functioning of time in our society because its mysteries and its circularities get translated into specific economic operations that produce (or destroy) wealth and have very tangible consequences. In studying the time of money, one studies the time of a society that defines itself with reference to a future that depends on it, both in the economy and in other spheres.

These are the issues and the presuppositions of this book. They are both numerous and interwoven. The organization of the volume is linear, and should allow readers to follow the discourse, even if they are interested in

only one of the issues considered (such as financial problems, sociological problems, or the concept of time). To facilitate these different readings, a brief introduction is placed at the beginning of each chapter. This summarizes the various topics discussed and addressed in the different sections, and serves to highlight the general thread of the discussion presented. Thus it should prove easier to follow the line of discourse even when it addresses rather technical issues in one of the sections, given that one will know the point of the chapter and the means by which it develops without having to go into its technical elements.

The volume is divided into three parts, becoming gradually more specific. The first part deals with very general themes, which set the stage for later arguments. It starts by asking what the role of time in economics is, and by presenting all the criticisms that economists direct to themselves on this point (Chapter 1). It then introduces the sociological idea of a time that does not exist by itself, but is produced by the present to get an orientation towards the future (Chapter 2). This construction becomes more and more complex, because it interweaves both future and past perspectives of different observers and of different presents. The economy serves to manage this complexity because, if we have money, we can rely on the possibility of satisfying our needs in the future, even should others want the same goods. Chapter 3 reconstructs the meaning of economy in this view. Chapter 4 presents the role and the function of money, which stands for every other good and which links different presents and all members of society with one another. The circulation of money presupposes markets, which circulate information and allow operators to observe one another (Chapter 5) (a fundamental problem, hitherto treated by theory in a simplified and, therefore, highly controversial way). Financial markets exacerbate the mechanisms of the market and show how specific markets centred on risk have been produced, with a dynamic and structures that require much more abstract theoretical tools (Chapter 6).

The second part deals with the specifics of finance and the relationship of finance to the world. It asks whether the reality of finance is only virtual or whether it is a concrete production and circulation of wealth, and what the relationship between the paper economy and the real economy (Chapter 7) consists of. Chapter 8 presents and discusses derivatives, showing that they are contracts to sell and manage risks – instruments that have become necessary in an increasingly unstable and uncertain world. It deals with the problem of whether or not they are a new form of money, though much more abstract and flexible, aimed directly at the present management of a future that one knows is unknown (Chapter 9). The resulting trade of uncertainty requires complex and formalized tools, which allow operators to price and circulate risk. Chapter 10 discusses the

techniques of structured finance and their limits. These have led to unforeseeable situations and to a dramatic interlacement of time perspectives.

Part III deals with the financial crisis in 2008. In it, I try to describe the financial crisis from the point of view of the management of time and its shortcomings. This part goes into the details of the techniques used and the measures taken to mitigate the consequences of the financial crisis. Chapter 11 reconstructs the basis of the crisis, showing that it was a matter of oversimplified visions of the future and of risk that referred to the present. As a result, the present found out that it had no longer had open possibilities, in that it had already used its own future. Chapter 12 presents the spread of the crisis as an implosion of the future and of trust. This has led to a situation where, instead of overusing the future, one refuses to build it up at all, and remains paralysed as a consequence. The state attempted to regulate the situation (Chapter 13), adopting various measures that proved more or less adequate depending on the image of the future they used, that is, depending on their ability to recognize the unpredictability of the time to come and the need to learn from it as it comes to be the case.

At the end of the journey, no concrete answers are presented and, in fact, for those who must decide, there are not even precise indications to assure them of the right thing to do or the way in which to do it. Such a claim would go against the general approach of the book, which starts with the uncertainty and obscurity of the future. This obscurity, however, does not mean that the role of the future in operations and decisions must be bleak. On the contrary, by underlining the use of time in highly technical and often impenetrable questions of contemporary finance, one will be better able to understand an area of our society that has increasingly become all the more mysterious. Underlying all formalisms, there is the matter of the present management of the future, which is mysterious because we cannot know it, but which must not be seen as mysterious in our operations (though we often do not even realize that this is the point). If, as we want to maintain, time is money, then, by studying the time of money, one will be better able to understand both the present and its way of building the future. One will be better able to understand how, and in what ways, the future remains unpredictable.

*Note:* Page numbers in the notes refer to Italian or German editions where stated (It. edn or Ger. edn). Translations are the author's own.



## PART I

### The time of money