

# Financial decision making in incomplete markets

Citation for published version (APA):

Floroiu, O. (2015). *Financial decision making in incomplete markets*. [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20150409of>

## Document status and date:

Published: 01/01/2015

## DOI:

[10.26481/dis.20150409of](https://doi.org/10.26481/dis.20150409of)

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

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## **Knowledge valorization**

This section is an addendum to the dissertation, a collection of the author's reflections regarding the topic of incomplete markets. In particular, this addendum discusses knowledge valorization (or the process of creating value from knowledge) in the context of the current dissertation.

Academic work can be considered to be value adding if, apart from being scientifically relevant, it is also of social and/or economic relevance. Where finance is concerned, this means that the work is targeted at various stakeholders, from individuals and households to corporations and the society as a whole, in such a way that it highlights either shortcomings or opportunities not considered before, which would make these stakeholders significantly alter their course of action. Therefore, in order to discuss how this dissertation creates value from knowledge we must identify both the shortcomings or opportunities of each market setting presented and the corresponding stakeholders.

Chapters 2 and 3 of this dissertation have asset pricing implications for various types of investors. Chapter 2 describes a pricing mechanism in incomplete markets that is particularly interesting for retail or institutional investors who want to value real options. Real options represent future opportunities and are an important part of the capital budgeting decisions that firms are faced with. Better valuation techniques for real options can help a firm identify valuable projects and in turn lead to a better allocation of resources among projects. Ultimately, such decisions can be vital for the survival of a firm.

Chapter 3 deals with the issue of discounting very long dated cash-flows. It brings into attention perhaps one of the most peculiar UK debt instruments: infinite maturity callable government bonds. The underlying problem is the discounting of cash flows with maturities longer than the longest maturity of traded instruments and the prices of bonds with infinite maturity could reveal valuable information on this matter. The stakeholders in this case are institutional investors, such as pension funds and insurance companies, because these are the type of investors with contractual obligations that last longer than any traded instrument in the market.

The implications of Chapter 3 are of both economic and social nature and are relevant for the society as a whole, because the problem of discounting long-dated cash flows in fact extends to an

even bigger problem, that of the current pension crisis. Pension funds all over the world currently fear that they will soon not be able to meet their obligations. Apart from the social policies that governments must devise in order to improve the ratio of workers per retiree, this problem must also be tackled from a finance perspective by understanding exactly how underfunded pension funds are. To this end, one must discount the future obligations at the correct discount rate, which is something that is not known with certainty but that can be inferred for instance from market prices of instruments like the UK infinite maturity bonds.

Chapter 4 targets the general public and it has both social and economic relevance. The chapter investigates whether or not the contributions that S&P500 companies make to election campaigns can increase their chances of subsequently receiving benefits from the government either in the form of procurement contracts or potentially as favorable legislation. There are several stakeholders in this case: various companies, the government, tax payers and their interests are not always aligned. The economic relevance of this topic lies in the fact that it opens up the discussion about whether or not the allocation of tax payer money is efficient and value adding given the increase in election campaign contributions over the years. The social aspect is represented by the fact that the topic questions whether or not an important part of how our society functions - the election system – was corrupted by the process of raising campaign contributions in the sense that contributors expect some form of compensation in return. The purpose of the chapter is not to give a definitive answer to these questions, but to raise awareness of the phenomenon among the general public and to encourage further research in the area.

The topics in this dissertation are diverse and they open up many avenues for further research, especially since the related literature is not so vast. The ideas have already been shared with the general public at international conferences, like the 2012 World Congress of the Bachelier Finance Society in Sydney, the 2012 AsRES - AREUEA Joint International Conference in Singapore, the 2013 ASTIN Colloquium of the International Actuarial Association in The Hague and the 2014 FMA Doctoral Student Consortium in Maastricht. It is the author's hope that these ideas will materialize into academic journal publications.

## **Biography**

Oana Floroiu was born on the 20<sup>th</sup> of September 1986 in Galati, Romania. She completed her undergraduate studies at the Academy of Economic Studies in Bucharest and received a Bachelor's degree in Economics, specialization Finance and Banking.

She subsequently pursued a Master's in Financial Economics, the Asset Pricing track, and a Master's in Economic and Financial Research, specialization Financial Economics, both at Maastricht University.

Oana worked for one year as a Research Assistant at the Finance Department of Maastricht University, before she joined as a PhD Candidate in 2011. Her three-year PhD position was financed by NWO (the Netherlands Organization for Scientific Research) via the Graduate Program 2011.

The work collected in this dissertation has been presented at international conferences like the 2012 World Congress of the Bachelier Finance Society in Sydney, the 2012 AsRES - AREUEA Joint International Conference in Singapore, the 2013 ASTIN Colloquium of the International Actuarial Association in The Hague and the 2014 FMA Doctoral Student Consortium in Maastricht. Oana visited the School of Banking and Finance of the University of New South Wales in Sydney, whose hospitality during June-July 2012 is highly appreciated.

Since November 2014, Oana has been working at KPMG Netherlands in the Financial Risk Management Department.