Securitization in 2015: Element of default or engine for the European economy?
Securitization in 2015: Element of default or engine for the European economy?

Author: Claudia Alexandra Caluian
Supervisor: Fabiano Cavadini

Bachelor Thesis
University of Applied Sciences and Arts of Southern Switzerland
Department of Business Administration
Manno, September 2015

This paper represents author's original work and has not been submitted before to any institution for assessment purposes.
"Markets are not end in themselves, but powerful means for prosperity and security for all."

Mark Carney
Acknowledgement

First and foremost, I would like to express my gratitude to all professors that guided me throughout the years of study. Their patience, motivation, enthusiasm, and immense knowledge have been a source of inspiration for the person I became today.

In particular, my sincerest gratitude goes to Prof. Fabiano Cavadini, for all the support and shared enthusiasm.

Finally, I dedicate this research to my father, with all my love.
ABSTRACT

The most recent financial crisis set in motion a re-examination of the primary forces driving the financial stability of the European Union. This paper examines the potential benefits of securitization structures considering the European economic framework. It provides an overview of the meaning, functionality, development and performance of securitization as a structured financing device, and underlines the measures undertaken by the EU after the financial crisis to restore confidence in the market while creating a sound and sustainable regulatory framework. The paper presents also a set of non-legislative initiatives and industry proposals for restating securitization in a well-functioning market. Taking the form of a review-based paper, the main objective is to pool together the set of variables that influence the European securitization market, in order to discover whether the recent changes to the framework are able to eliminate the stigma attached to securitizations after the financial crisis, and whether structured finance can resolve the financial constraints faced by European markets.
# TABLE OF CONTENTS

**ABSTRACT**.................................................................................................................................................. I

**TABLE OF CONTENTS**........................................................................................................................................ II

**LIST OF TABLES** ............................................................................................................................................... IV

**LIST OF FIGURES** ............................................................................................................................................ V

1  Introduction ......................................................................................................................................................... 9

1.1  Purpose of the research ................................................................................................................................. 10

1.2  Methodology and structure ............................................................................................................................ 11

2  Background research .......................................................................................................................................... 13

2.1  European market characteristics .................................................................................................................. 13

2.2  Europe: steps towards financial stability ...................................................................................................... 16

2.3  Securitization: reasons to restore .................................................................................................................. 18

3  Understanding securitization ............................................................................................................................. 22

3.1  Definitions and features .................................................................................................................................. 22

3.2  Remarks .......................................................................................................................................................... 27

3.3  Securitization: before and after ...................................................................................................................... 28

4  An improved framework for European securitization ....................................................................................... 33

4.1  The multilateral approach .............................................................................................................................. 34

4.1.1  Markets in Financial Instruments Directive (MiFID) .............................................................................. 34

4.1.2  Market Abuse Regulation ......................................................................................................................... 36

4.1.3  Banking sector .......................................................................................................................................... 36

4.1.4  Insurance sector ....................................................................................................................................... 40
4.1.5  Asset management

4.1.6  Credit Rating Agencies

4.1.7  Prospectus

4.2  Non-legislative Aspects

4.2.1  Criteria for simple, transparent and comparable securitizations

4.2.2  Sovereign risk and securities rating

4.3  Remarks

5  Securitization: possible contributions to financial stability. Evidence from five European countries

5.1  Demand for financing

5.1.1  Switzerland

5.1.2  EU Member States

5.2  Supply of financing

6  Conclusion

6.1  Conclusive remarks

6.2  Limitations

6.3  Further research

8  Bibliography

Annex 1 European regulatory framework and changes over time

Annex 2 Basel III - External ratings

Annex 3 INCRA - Forward-Looking Indicators
LIST OF TABLES

Table 1: European Investment Funds Initiatives ................................................................. 17
Table 2: Parties in a securitization transaction ................................................................. 22
Table 3: Rating scales ........................................................................................................ 25
Table 4: Criteria for simple, transparent and comparable securitizations .................... 47
Table 5: INCRA Rating scale ........................................................................................... 48
Table 6: Sovereign ratings comparison ............................................................................ 49
LIST OF FIGURES

Figure 1: Debt financing sources for non-financial corporations............................................. 13

Figure 2: SME degree of recovery from 2008 to 2013, value added and employment .......... 14

Figure 3: Collateral-loan required from euro area enterprises.................................................. 15

Figure 4: European outstanding securities ratings, 2013......................................................... 30

Figure 5: Securities issuance 2006-2014.................................................................................... 31

Figure 6: Securities issuance; Retained and placed .................................................................. 31

Figure 7; Total European Securitization Issuance (Types of assets)......................................... 32

Figure 8: Access to finance for SMEs....................................................................................... 53

Figure 9: Investment Fund Assets by Country of Domicile at end 2012 .................................. 54

Figure 10: Duration of assets and liabilities of European insurance companies.................... 54

Figure 11: Sources of capital raised for CEE private equity in 2009-2014 ............................... 55
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
<td>Asset-Backed Security</td>
</tr>
<tr>
<td>ABSPP</td>
<td>Asset-Backed Securities Purchase Programme</td>
</tr>
<tr>
<td>AFME</td>
<td>Association for Financial Markets in Europe</td>
</tr>
<tr>
<td>AIF</td>
<td>Alternative Investment Fund</td>
</tr>
<tr>
<td>AIFM</td>
<td>Alternative Investment Fund Manager</td>
</tr>
<tr>
<td>BCBS</td>
<td>Basel Committee on Banking Supervision</td>
</tr>
<tr>
<td>BoE</td>
<td>Bank of England</td>
</tr>
<tr>
<td>CDO</td>
<td>Collateralized Debt Obligation</td>
</tr>
<tr>
<td>DE</td>
<td>Germany</td>
</tr>
<tr>
<td>CH</td>
<td>Switzerland</td>
</tr>
<tr>
<td>CRA</td>
<td>Credit Rating Agency</td>
</tr>
<tr>
<td>CRD</td>
<td>Capital Requirements Directive</td>
</tr>
<tr>
<td>CRM</td>
<td>Credit Risk Mitigation</td>
</tr>
<tr>
<td>CRR</td>
<td>Capital Requirements Regulation</td>
</tr>
<tr>
<td>EAER</td>
<td>Federal Department of Economic Affairs, Education and Research</td>
</tr>
<tr>
<td>ECB</td>
<td>European Central Bank</td>
</tr>
<tr>
<td>EFAMA</td>
<td>European Fund and Asset Management Association</td>
</tr>
<tr>
<td>EIOPA</td>
<td>European Insurance and Occupational Pensions Authority</td>
</tr>
<tr>
<td>ELTIF</td>
<td>European Long-Term Investment Fund</td>
</tr>
<tr>
<td>ESAS</td>
<td>European Society for Applied Superconductivity</td>
</tr>
<tr>
<td>ESFS</td>
<td>European System of Financial Supervision</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Form</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>ESMA</td>
<td>European Securities and Markets Authority</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EuSEF</td>
<td>European Social Entrepreneurship Fund</td>
</tr>
<tr>
<td>EuVECA</td>
<td>European Venture Capital Fund</td>
</tr>
<tr>
<td>HFT</td>
<td>High Frequency Trading</td>
</tr>
<tr>
<td>HQLA</td>
<td>High-quality liquid asset</td>
</tr>
<tr>
<td>IOSCO</td>
<td>International Organization of Securities Commissions</td>
</tr>
<tr>
<td>IMA</td>
<td>Institute for Mathematics and its Applications</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>LCR</td>
<td>Liquidity coverage ratio</td>
</tr>
<tr>
<td>LIBOR</td>
<td>London Interbank Offer Rate</td>
</tr>
<tr>
<td>LU</td>
<td>Luxembourg</td>
</tr>
<tr>
<td>MBS</td>
<td>Mortgage Backed Security</td>
</tr>
<tr>
<td>MCR</td>
<td>Minimum Capital Requirements</td>
</tr>
<tr>
<td>MiFID</td>
<td>Markets in Financial Instruments Directive</td>
</tr>
<tr>
<td>MIFIR</td>
<td>Markets in Financial Instruments Regulation</td>
</tr>
<tr>
<td>MMF</td>
<td>Money Market Funds</td>
</tr>
<tr>
<td>NSFR</td>
<td>Net Stable Funding Ratio</td>
</tr>
<tr>
<td>OTC</td>
<td>Over the Counter</td>
</tr>
<tr>
<td>OTF</td>
<td>Organized Trading Facility</td>
</tr>
<tr>
<td>OMT</td>
<td>Outright Monetary Transaction</td>
</tr>
<tr>
<td>RMBS</td>
<td>Residential Mortgage-Backed Security</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>RO</td>
<td>Romania</td>
</tr>
<tr>
<td>SCR</td>
<td>Solvency Capital Requirements</td>
</tr>
<tr>
<td>SME</td>
<td>Small and Medium Enterprises</td>
</tr>
<tr>
<td>S&amp;P</td>
<td>Standard and Poor's</td>
</tr>
<tr>
<td>SPV</td>
<td>Special Purpose Vehicle</td>
</tr>
<tr>
<td>TFISM</td>
<td>Task Force on Securitisation Markets</td>
</tr>
<tr>
<td>UCITS</td>
<td>Undertakings for Collective Investment in Transferable Securities</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>US</td>
<td>United States (of America)</td>
</tr>
<tr>
<td>WBS</td>
<td>Wholesale business securitization</td>
</tr>
</tbody>
</table>
1 Introduction

After many years of reforms and efforts employed to recover from the economic crisis started in 2007, Europe still presents an uneven and weak growth. While the global growth predicted for 2015 is of 3.8%, the average expected growth for Europe is 1.3%. (IMF, 2014). The effects of the crisis, in particular high level of unemployment, public debt and borrowing constraints are still the main issues addressed in the structural reforms of the European Union (EU).

The uncertainty of the economic outlook creates even today a miss trust barrier that determines liquidity holders to reduce investments in the EU, which are estimated to be 15% lower than the immediate pre-crisis level. This, together with the high dependency of EU corporate sector on bank financing, not only creates an imbalance of access to credit, but holds back development and growth in the Euro area.

The various threats to the European financial stability have been difficult to identify as a consequence of the high level of interconnectedness of the modern financial system. Many markets have been affected, and placing priorities on the set of reforms to restate stability, brings Europe to face a period of transition, reflected in the disproportional recovery across the member states.

As a response to the restructuring needs of the European financial framework, in particular the need to lower the reliance on bank lending, European Commission presented in February 2015 the Green Paper "Building a Capital Markets Union" which aims to create a "true single Capital market for all European members" (European Commission, 2015b).

Issues regarding insolvency, corporate, taxation and securities laws are addressed in order to restore confidence in the European economy and improve allocation of risk and capital. The Commission is engaging in restoring existing financial structures that have proven to be effective for the development of capital markets, starting with the securitization framework.

While the stigma attached to securitization persists, reflected in the low levels of issuance since the peak prior the crisis, its capacity to stimulate loan supply cannot be ignored, as it matches the need for widening the sources of funding in the EU economy. If backed by a sound framework, securitized structures can be used to create equilibrium for loan supply and secure investments, and can help eliminate the financial constraints that are blocking growth and development in the EU member states.
As a first step towards creation of the Capital Markets Union, restating confidence in the securitization market has a great share in restating confidence in the European financial stability, which has been very much challenged in the past years. This is why the complexity and ambiguity that characterized securitization prior the financial crisis are being addressed by targeting the primary forces participating in the evolution and expansion of this market in the first place. A prerequisite for a stable securitization framework is the stability of the main forces that combine to create the financial market, which is now translated in a series of simultaneous reforms for different financial sectors.

Although there are strong reasons to impose severe regulation to the securitization framework, the desired well-functioning market requires a balance between regulatory restrictions and incentives for participation. However, results and benefits of restating the securitization market are not easily measureable across the EU member states, due to significant differences in the level of regulatory implementation and market development from one state to another.

This raises questions regarding uniformity and sufficiency, concerning the ability of new reforms to eliminate market abuse, and of continuity and sustainability of a secure framework which can change investors’ current perception of securities as default products.

1.1 Purpose of the research

This research investigates the potential benefits of securitization structures considering the European economic framework. It provides an overview of the meaning, functionality, development and performance of securitization as a structured financing device, and underlines the measures undertaken by the EU after the financial crisis to restore confidence in the market, while creating a sound and sustainable regulatory framework.

The significant transformation of securitization markets after the financial crisis, activated by increasing opaque and complex structures with unprecedented rates of default, caused a great adversity to securitized products. However, being prioritized by the European Authorities on the list of reforms to restate financial stability, securitization is once again subject to controversial debates. This leads to our research questions:

*Can changes in regulatory framework reshape securitization in order to be considered a safe funding and risk transfer tool in the European market? Also, can securitization be the answer to the European lending constraints?*

Securitization in 2015: Element of default or engine for the European economy?
Contrary to the specialization trend in the current academic regime, this paper follows a rather general review, aiming to bring into attention the various factors that shape the European securitization framework, both directly and indirectly.

In particular, this paper aims to:

- Provide an overview of the European economic framework;
- Recognize the benefits and implications of securitization for the European market, as well as the possible impact to the financial stability;
- Define and identify the variables that combine to make securitizations, and the path of industry development over time;
- Identify the regulatory changes to the European securitization framework;
- Identify non-legislative factors of influence and relative contributions;
- Underline differences between EU member states and how securitization can address specific issues.

This paper is addressed to academics and market participants, providing an overview of considerations with the intention to form the base for further research and bespoke analysis.

1.2 Methodology and structure

The research follows a case study design, focusing on reinterpretation of existing data, both qualitative and quantitative. In presenting the European framework for securitization in 2015, a slight comparative tendency is necessary in certain sections, to better illustrate the development and drivers of the current frame of reference. Although is a review-based paper, it uses both a systematic and a narrative approach.

By using a systematic approach, the research provides a synthesis of the meaning, functionality, development and performance of securitizations, as well as a synthesis of the current regulatory framework. Reliability of information presented is given by the validity of qualitative data offered by European and international institutions. The very legislative texts, press releases, discussion papers, reports and specialized books form the base of secondary sources used for analysis. Conferences and panel discussions bring an additional source of information.

A more subjective view is given by the interpretation of results from various studies and market initiatives. With the scope of analyzing the overall effect of particular variables in the context of
the securitization framework, the paper combines existing qualitative and quantitative data for identifying distinctions and for estimating the degree of relationship between concepts.

From a structural point of view, the obvious approach is to begin with a more general review of the European market, and then turn more specifically to the examination of the factors that combine to make the securitization market.

The chapter dedicated to the background research underlines the European market characteristics, pointing on the socio-economic-political and cultural diversity of the member states. To understand the current financial framework, a set of initiatives are presented, focusing on reforms undertaken towards restating the European financial stability. Finally, as part of this reforms, a section is dedicated to the motives behind the decision to restate the securitization market.

The following chapter provides an overview of the meaning, functionality, development and performance of securitizations. The current legal definition and the rationale behind relative transactions are being explained by presenting the parties involved and their role in the light of the characterizing features. In consideration of the role played by securitization in the last financial crisis, a series of factors have been identified as being the main shortcomings to the framework.

Taking into account the findings based on the events that triggered the financial crisis, the fourth chapter turns more specifically to the European framework. A set of factors influencing the development of a well-functioning securitization market have been determined based on the European market characteristics. Having a rather complex structure, this chapter outlines the regulatory changes - at both market and institutional level - that have an influence on the securitization framework. It then takes a non-legislative approach, indicating the contribution of other initiatives to the desired outcome.

The fifth chapter brings evidence from five European countries - Germany, United Kingdom, Luxembourg, Romania and Switzerland, analyzing the way securitization can fit in the specific financial frameworks and the possible contributions to the European financial stability.

Finally, the conclusive chapter outlines the thesis statement and author's subjective opinion on future developments.

Securitization in 2015: Element of default or engine for the European economy?
2 Background research

Before entering the world of securitization and its various elements, it is important to understand the characteristics of the European market and the actions undertaken by the authorities to restore the stability that has yet to be achieved, although many years have passed since the global financial shock of 2007. In spite of recognizing the role played by the infrastructure - or better, its failure to sustain the complex and interconnected market - in driving the most recent crisis, securitization remains high on the list of causes identified as main drivers of the collapse. However, the current slow economic recovery proves that structured financing is fundamental for a sustainable growth.

This chapter briefly presents the European market structure, its shortcomings and initiatives undertaken towards a more stable economic environment, and underlines the contributions a sound securitization framework can bring to the EU market.

2.1 European market characteristics

The European market is characterized by the prevalence of Small and Medium-sized Enterprises (SMEs). The last annual report (2013/2014) issued by the European Commission on SMEs’ performance underlines their importance for the economic recovery after the financial crisis.

The member states of the EU present 21.2 million SMEs, which account for 99.8% of total enterprises in the non-financial business sector. They have an employment capacity of 66.8% and generate 57.9% of total value added by the non-financial business sector (Muller et al., 2014). SMEs refer to enterprises with less than 250 employees, an annual turnover of less than €50 million or having total assets of less than €43 million (Muller et al., 2014). The slow recovery from the financial crisis has been mainly caused by...
by the lending constraints faced by the European non-financial corporations, which are highly dependent on bank financing. As underlined in Figure 1, in Europe, banks account for about four fifths of debt finance supply (IMF, 2014a).

The pressure of international regulatory bodies, in particular regulations under Basel Accords and Solvency II agreements, on bank capital adequacy, stress testing and market liquidity risk, reduced the willingness of banks to issue credit following the financial downturn. This has influenced directly the growth prospects of EU enterprises, because banks’ behavior has a great impact on the liquidity level in the market, given their role as main debt financing providers.

European recovery is also influenced by the socio-economic-political and cultural diversity of the member states, which creates significant difficulties in the implementation processes of growth-driving reforms. Particularities of each member state determine different levels of inflation and interest rates, which influence the access to credit and thus the value added and employment recovery potential of each country.

Only eight member countries achieved full value added and employment recovery, while 15 countries are yet to recover their 2008 levels (Muller et al., 2014). The significant dispersion in the economic recovery of the European member states is best illustrated in Figure 2 below.

**Figure 2: SME degree of recovery from 2008 to 2013, value added and employment**

Note: Due to a break in the data series, Slovakia is not included in the figure above

**Source:** Muller et al., 2014

Securitization in 2015: Element of default or engine for the European economy?
The survey conducted by the European Central Bank (ECB) for the period 2013-2014 (ECB, 2015) regarding the access to finance of enterprises in the euro area on a sample of 11,720 enterprises, of which 91% SMEs, collected important data regarding the main concerns of individual countries. Although access to finance presents significant improvement in the last years of reforms, countries like Greece, Ireland and Netherlands still report lending constraints. This means that the positive average results are highly influenced by the unique characteristics of individual member states.

Factors considered to have most impact on the availability of external financing to euro area enterprises - the general economic outlook, firm's specific outlook and capital, the willingness of banks to lend and access to public financial support - recorded positive results under the study, but their level was again uneven across the member states.

The benefits of an increased willingness of banks to lend registered in the past years - lower interest rates and an increase in maturity loans - have favored however a limited share of EU enterprises, mainly large companies and SMEs located in the strongest economies of the EU.

Figure 3: Collateral-loan required from euro area enterprises

The lending terms and conditions still present barriers, the most important being the high level of collateral required. Although Figure 3 does not show significant differences between the collateral level required for different enterprise sizes, this issue affects mostly SMEs, as large firms mitigate the weak credit supply through bond issuance, which has been a favorable financing method due to low interest rates. Also, access to finance through capital markets is

Securitization in 2015: Element of default or engine for the European economy?
prevalent in strong European markets and not in the weak economies where financing problems have been most severe (ECB, 2015).

Developing a more diversified funding base results to be a prerequisite for the European growth objectives. As main drivers for job enhancement and economic growth, SMEs need an improvement of the framework in which they operate to deliver results. However, the creation of a sustainable framework cannot be achieved with a single measure, but requires the implementation of a set of reforms that take into consideration the complexity and interconnectedness of the markets.

2.2 Europe: steps towards financial stability

A lesson learned from the last financial crisis is that even the strongest economies are subject to uncertainty and volatility.

Mark Carney, Governor of the Bank of England (BoE) and Chairman of the Financial Stability Board speaks about "real markets" as markets that are able to resist external shocks, with well-identified accountable parties and where both public and private actors recognize their responsibilities for the system as a whole. He calls the market infrastructure a "public good" which should be characterized by professionalism and openness and not by informality and inaccessibility (IAHFP, 2015).

This section focuses on the key initiatives undertaken by the EU over the past period to address the threats to financial stability, and focuses on the development of the European Capital Markets Union.

The 2015 Work Programme announced by the European Commission presents new initiatives with clear objectives and concrete steps towards their achievement. The initiatives are shaped around the idea of union and around building a single, strong Global Actor. From climate change issues to migration and human rights, from trade and taxation reforms to a fairer Economic and Monetary Union, the European Commission acts upon a well-functioning legislative framework that will allow Europe to become more resistant to possible future threats.

The underlying element of all reforms and their successful implementation is, and always has been, the economic equilibrium. Relying on banks for funding their economies made European countries much more vulnerable to the events triggered by the financial collapse, and emphasized the underdeveloped state of their capital markets.
By building the Capital Markets Union, the European Commission pursues this equilibrium, and targets few specific objectives related to the access to financing, increasing and diversifying the sources of funding and the efficiency and effectiveness of the markets. (European Commission, 2015b)

However, differences between the European member states in terms of accounting, legal and regulatory structures and especially tax systems, represent significant obstacles to the creation of a fully integrated single market for capital.

Actions have been taken to attract institutional, retail and international investors, by adopting a set of regulations to improve the European investment funds framework and to create more competition in this industry (European Commission, 2015b). The initiatives outlined in Table 1 have been undertaken to address SMEs lending constraints by matching investors' objectives with the specific needs of the borrowers.

**Table 1: European Investment Funds Initiatives**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCITS (Undertakings for Collective Investment in Transferable Securities)</td>
<td>Is the main European framework covering collective investment schemes that are suitable for retail investors.</td>
</tr>
<tr>
<td>AIFM (Alternative Investment Fund Managers)</td>
<td>Covering managers of alternative investment schemes that focus on start-up companies.</td>
</tr>
<tr>
<td>EuVECA (European Venture Capital Funds)</td>
<td>A subcategory of alternative investment schemes that focus on start-up companies;</td>
</tr>
<tr>
<td>EuSEF (European Social Entrepreneurship Funds)</td>
<td>An investment scheme that focuses on all kinds of enterprises that achieve proven social impacts.</td>
</tr>
<tr>
<td>ELTIF (European Long-Term Investment Funds)</td>
<td>The proposed framework covering funds that focus on investing in various types of alternative asset classes such as infrastructure, small and medium sized enterprises and real assets.</td>
</tr>
<tr>
<td>MMF (Money Market Funds)</td>
<td>The proposed European framework that covers collective investment schemes focusing on money market instruments.</td>
</tr>
</tbody>
</table>

**Source: European Commission, 2014a**

Another important source of funding is represented by the pensions and insurance sector. With the Solvency II Act entering in force in January 2016, national restrictions on the composition of the asset portfolio are being removed, enhancing long term investments.

Securitization in 2015: Element of default or engine for the European economy?
Other areas of focus are data aggregation, reporting, standardization of criteria and corporate governance. The actions undertaken and planned refer not only to legislative measures, but also to competition enforcement actions and infringements and country specific recommendations to the member states (European Commission, 2015a).

The weakness in the European supervisory framework have been addressed by creating a convergence program guided by European Society for Applied Superconductivity (ESAS) and European System of Financial Supervision (ESFS) in order to ensure the correct and uniform implementation of reforms along the EU member states. Also, the powers of the European Securities and Markets Authority (ESMA) and cooperation between national authorities have been enhanced.

All initiatives underlined above represent efforts undertaken to restore investors' confidence in the market and to break the barriers of mistrust set-up by the financial collapse and its effects resented in the years that followed. But the path towards maximizing the benefits of a well-integrated European Capital Market goes beyond the ability to make investors feel safe. Attracting investors also means offering products that target and meet the specific investment objectives of liquidity holders, which is equally important to their view regarding the market stability.

Although initiatives to promote crowdfunding, peer-to-peer lending and corporate bond funding have been successful, they were not able to fill the gap installed over the past years by the shrinking structured financing market. Regardless the stain left by subprime securities and market abuse, this type of structured products has the ability to create an equilibrium of loan supply and secure investments, which is exactly what European Commission is targeting by prioritizing securitization restructuring on the list of reforms.

### 2.3 Securitization: reasons to restore

In his speech at the IMA Public Lectures of September 21, 2010, Prof. Dr. Andrew W. Lo explains the importance of financial engineering in addressing the main concerns of the 21st century. Although he refers to issues related to lack of research funding for global concerns such as cancer and climate change, the financial stability issues around the world are equally important and are equally dependent on the same variable: the capital markets.

Prof. Dr. Andrew W. Lo underlines the limitations of the Public Sector to meet the investment needs for growth and stresses the importance of collaboration with the Private Sector. He claims that a well-functioning capital market should be able to complete the financial gap that Securitization in 2015: Element of default or engine for the European economy?
holds back development and growth, and that there is no reason to delay addressing this issues, as the necessary tools to do so are already available.

The answer lies in finding the way in which the interests of market players go in the same direction; and securitization can do exactly that. He presents the securitization concept ignoring the stigma attached to it during the collapse in 2007, but focusing on its ability to meet funding needs with liquidity holders, through unique structures tailored to investor's objectives and risk preferences (IMA, 2012).

This section outlines the motive behind European reforms targeting the securitization framework, pointing on the economic rationale of financial engineering behind securitization, that cannot be invalidated by the stigma attached to it during the economic downturn.

Sound capital markets have proven their efficiency in providing the means to break the financial constraints that blocked the growth potential in the past years. The US market is a great example of economic recovery sustained by a sound capital market which allowed pressures to be contained, and to reach a growth rate of 4.2 percent in 2014 (IMF, 2014). Securitized products have a great share of total financial instruments traded in the capital markets. A return of the European securitization market for SMEs to at least half the level reached in 2007, would mean an additional €20 billion of funding available (European Commission, 2015a).

The potential benefits of securitization have been focused on its purpose: a funding tool and a risk transfer tool. Its potential to drive, or damage long-term financial stability as experienced during the last financial crisis, underlines the significant role securitization plays in building a strong capital market for Europe.

There are four main contributions that well-functioning securitization can bring to the European financial system:

1. **Diversifying funding sources**

The consequences of Europe's reliance on bank funding made the need for diversification of funding sources a crucial determinant for economic recovery. European investor base is dominated by the banking sector, followed by pension and insurance funds, although with a very limited share (Segoviano et al., 2015).

Securitization in 2015: Element of default or engine for the European economy?
Enhancing participation of non-bank institutional investors to the securitization market has the potential to widen the sources of funding for real economy, and in the same time, to support the financial stability through promoting a simpler structure with lower risk. Institutional investors can provide long-term funding, thanks to their financial structure. Securitization can provide the appropriate mean for the transfer of resources, meeting the asset-liability matching needs of investors with the long-term borrowing needs of the market (ECB and BoE, 2014).

For banks, restating securitization as a safe funding tool, can free up capital for more lending, creating conditions accessible to more market players. Securitization can also mitigate asset-liability miss matching, especially through Residential Mortgage Backed Securities (RMBS), making available long-term savings rather than short-term bank deposits for financing long term housing lending.

2. Increasing the level of diversification of investors portfolios

Diversification is the core strategy of insurance companies and pension funds, which are the main buyers of long term assets. Creating a risk-return balance through direct lending can absorb many resources that can be used instead to identify other opportunities available on the market. By transforming illiquid loans into liquid ones, securitization provides the adequate product that eliminates the need for a complex due diligence infrastructure related to direct lending.

Securitization also provides for both bank and institutional investors means to mitigate risk exposure to the real economy, through the ability to diversify the risk structure of their portfolio by adopting investments in different underlying assets and different markets (ECB and BoE, 2014).

3. Risk transfer and allocation

One of the main benefits of securitization rises from the ability to create structures with different risk levels, allowing investors to create a balance in their portfolio based on their strategy.

The problem of banks dominating the credit market arises again, due to the high concentration of risk undertaken. Securitization brings the means to reduce risks on bank's balance sheet, by transferring it to the capital markets. On the one hand, banks achieve regulatory capital relief being thus able to lend more without committing too much capital. On the other hand, the process of risk transferring can be shaped to allow high degrees of protection for risk takers.
through the bankruptcy remoteness of the SPV for cash securitizations, or through derivative structures for synthetic securitization (ECB and BoE, 2014).

This feature has been highly criticized for driving market abuse through excessive risk transfer. A first response of the Basel Committee on Banking Supervision (BCBS) was to set up standards - implemented in the EU legislation through the Capital Requirements Regulation (CRR) - that impose originating banks and sponsors to retain an economic interest of at least 5 percent of the securitized assets. Issuers, by maintaining part of the risk exposure of a portfolio, became more responsible in assessing the quality of the underlying assets, resulting in a lower overall risk undertaken for a transaction.

4. Promotes further integration of EU financial market

The European capital market continues to be highly fragmented and shaped around national borders. Breaking this limited fragmentation could lead to a lower cost of capital and improvement of resource allocation, bringing support to the growth of businesses and of economy overall.

Restoring securitization represents an important step towards the creation of the Capital Markets Union. The reforms associated with creating a simple, transparent and standardized securitization framework can help the European member states to reduce the economic differences between them, and pull the recovery of the less developed countries.

By promoting cross-border financing within the EU, member states will have the possibility to achieve their growth objectives. The financial disproportion of EU economies can slowly cease to exist as members will align towards the creation of a single Global Actor. This, together with the historical low rate of default of European securities, will also attract significant foreign investments and will strengthen the position of this products on the international markets.

Similar to any other financial instrument, benefits of securitization have their costs. However, relying on past experiences, authorities have the power and the instruments to create a legal framework that can minimize risk and market abuse. The imposed risk retention is just one example of the significant measures undertaken to reduce negative conducts in the securities market. This shows that problems have been identified and addressed, and actions can be taken until a full establishment of a safe framework for securitization structures.
3 Understanding securitization

The rationale behind restating the securitization market can be criticized for underlying the same reasons behind the expansion of this market in the first place. To understand how past structures that have been proven toxic to the financial markets can be transformed into a well-functioning market, we must first identify the pillars of securitization transactions and their development over time.

3.1 Definitions and features

Since its beginnings in 1970's, securitization was explained through various definitions that lead to the same concept: a "carefully structured process whereby loans and other receivables are packaged, underwritten and sold in the form of securities" (Rosenthal & Ocampo, 1988).

Under the European framework, securitization is defined as a “transaction or scheme, whereby the credit risk associated with an exposure or pool of exposures is tranched, having both of the following characteristics: (a) payments in the transaction or scheme are dependent upon the performance of the exposure or pool of exposures; (b) the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme” (Allen&Overy, 2014).

To understand this definitions and the rationale behind securitization transactions, we shall start by underlying the parties involved and their role, briefly exposed in Table 2.

Table 2: Parties in a securitization transaction

<table>
<thead>
<tr>
<th>Primary</th>
<th>Originator</th>
<th>Represents the initial owner of the assets and the beneficiary of the proceeds resulting from the transaction.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SPV (Special purpose vehicle)</td>
<td>Is a legal entity where assets are transferred under a sale transaction. Is responsible for holding receivables and issuing securities.</td>
</tr>
<tr>
<td></td>
<td>Obligors</td>
<td>Are the debtors who must pay the originator. The relative claims are subsequently transferred to the SPV in the securitization transaction.</td>
</tr>
<tr>
<td></td>
<td>Investor</td>
<td>The person or entity who purchases securities.</td>
</tr>
<tr>
<td></td>
<td>Trustee</td>
<td>Supervises the transaction and holds ownership or security interest on the assets on behalf of the investors.</td>
</tr>
<tr>
<td></td>
<td>Servicer</td>
<td>The party responsible for collecting receivables from obligors and</td>
</tr>
</tbody>
</table>
Securitization in 2015: Element of default or engine for the European economy?

<table>
<thead>
<tr>
<th>Secondary</th>
<th>Legal and structuring advisors</th>
<th>Depending on the jurisdiction, a series of advisors define the appropriate structure of the securitization transaction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRA</td>
<td>Provides rating grades to the issued securities.</td>
<td></td>
</tr>
<tr>
<td>Credit enhancer</td>
<td>One or more entities that provide a degree of added protection to the transaction.</td>
<td></td>
</tr>
<tr>
<td>Banker</td>
<td>Can perform active roles, like placing the securities on the market, or static ones, by operating the account where the collection will be deposited.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Kothari, 2006

The interaction between parties and the substance of securitization as a device of structured financing can be synthesized in three features that combine to create this financial instrument:

1. **Asset-backed financing**

The first element that differentiates securitization from traditional financing is the type of risk exposure. While traditional methods of financing are exposed to entity risk, securitization reduces investors' exposure only to the risks inherent in the underlying assets. (Kothari, 2006 p 12). The relationship between originator and investor is eliminated by the intermediation of the SPV. By transferring the assets to the SPV, the originator waives his claims against them, and limits the claims of investors only to the assets transferred. Some jurisdictions require approval of obligors for this transfer, but is not always the case.

The process therefore creates securities based on financial claims (receivables), breaking the traditional lending which is based on tangible assets. Securitization goes even further, by allowing not only to pool existing assets in the form of claims, but also receivables to arise in the future.

This flexibility brought the quality of collateral to the center of analysis of securitization structures. Initially, securitization transactions were backed by mortgage claims, but over time, new assets such as credit card receivables, student loans and auto loans gained popularity in their use as collaterals. The outmost feature of an asset to be considered eligible for a securitization transaction is to produce cash flows over time. This basically means that any type of receivables can qualify to form the underlying pool of assets. When constructing a pool
of assets, other elements such as size, homogeneity and maturity composition of receivables are taken into consideration. Also, from a legal point of view, assets should be freely transferable and independent from the originator (Kothari, 2006, p 66-69).

2. Capital market financing

The overall purpose of the securitization structure is to transform illiquid assets into more liquid ones, so they become marketable. This triggers two fundamental requirements: the legal and systemic possibility of marketing the instrument and the existence of demand (Kothari, 2006, p 15).

The access to capital markets increases the ability of issuers to raise capital at lower costs and allows reaching a differentiated investor base willing and able to absorb different risk exposures. Investors on the other hand, can diversify their portfolio with a wide range of assets, facilitating risk management by matching assets and liabilities.

3. Structured finance

In a securitization transaction, risk is transferred through the issuance of different tranches of securities that allow investors to take different risk exposures in a portfolio. Tranches are structured based on priorities: the senior tranche is the last to absorb losses, followed by one or more mezzanine tranches until the junior tranche, which absorbs first loss risk. This structure allows the creation of securities tailored to investors' risk appetite, maturity and yield expectations.

The structure is sometimes used by originators as a method of credit enhancement, through the purchase of the junior tranche, taking therefore the first risk exposure of the portfolio. In fact, the structure itself provides a degree of added protection to the transaction, as each tranche is backed by the subordinated ones. Credit enhancement can also be provided by third parties, the most common being bank guarantees and insurances. Specific characteristics of the underlying assets may require different types of credit enhancement, which ultimately serve to achieve desired ratings for the issued securities (Kothari, 2006, p 210).

Ratings are used by issuers to prove the quality of a security, mostly to enhance its marketability. Generally, the CRAs offer advice on structuring and credit enhancement requirements, which can be considered a conflict of interest, as the grade is the result of a target. Ratings range from AAA (minimum risk exposure) to D (highly risky). The three global Securitization in 2015: Element of default or engine for the European economy?
players that dominate the industry set-up the rating scale outlined in table xxx, creating a mean of comparison for the quality of financial instruments. Ratings serve as a benchmark for investors' decisions and have been considered for a long time an alternative for due diligence. A particularity for securitized products is the ability to have a higher rating than ratings attributed to both issuer and the underlying assets. On the one hand, this is possible due to asset isolation - held by the SPV - and on the other hand, due to the credit enhancement, which provides additional protection for investors. A security can therefore receive maximum grading if the right variables are accordingly placed. As a result, funding through securitized structures became the first choice for lower-graded issuers who could benefit a more favorable cost of borrowing compared to traditional funding which based interest rates on entity risk.

Table 3: Rating Scales

<table>
<thead>
<tr>
<th>Agency</th>
<th>Investment Grade</th>
<th>Speculative Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moody's</td>
<td>AAA</td>
<td>A1</td>
</tr>
<tr>
<td>Fitch</td>
<td>AAA</td>
<td>AA+</td>
</tr>
</tbody>
</table>

Source: Kothari, 2006

The element behind securitization transactions that makes possible the combination of the three features is the SPV - or better, the bankruptcy remoteness of the SPV. Its first and utmost role is to isolate the assets from the originator, so any disruption in activity or bankruptcy against the initial holder could not affect investors' returns and interests in the underlying assets. This is why SPVs - generally organized as single purpose companies, trusts, limited partnership or other forms, depending on jurisdiction - do not have profits, losses, liabilities or net worth (Kothari, 2006, p 636). The bankruptcy remoteness requires certain conditions to be met to ensure that (a) it cannot be consolidated with the originator, and (b) investors in the issued securities are the only ones with claims on the underlying assets. Under this conditions a SPV:

(a) Should be set-up as a single purpose entity which cannot engage in any activity other than holding and maintaining interest in the securitized portfolios;

(b) Should not have employees and cannot have fiduciary responsibilities to third parties;

(c) A non-petition agreement should be signed with any person who contracts with the SPV so it cannot be taken to court for bankruptcy;

Securitization in 2015: Element of default or engine for the European economy?
Present and future liabilities should be quantifiable and the SPV must show the capability to meet them (Kothari, 2006, p 71).

Although the guarantee provided by the bankruptcy remoteness of the SPV has been an important feature for the development of securities markets, in time, different types of structures have emerged to better meet both issuers’ and investors' needs, which not always include the existence of a SPV. The two main structural forms refer to the scope of transaction. *Cash structures* are the traditional structures where originators sell a pool of assets to a SPV to raise cash through the issue of securities. On the other hand, *Synthetic structures* do not involve the actual asset sale transaction, instead is a risk/reward transfer by entering into a derivative transaction (Kothari, 2006, p 75).

Cash transactions have different features based on the existence of a true sale, type of payment to investors and number of pools of assets under management of a SPV. This differences are underlined below (Kothari, 2006, p 76-78):

1. **True sale structure vs. Secure loan structure**

   True sale structures include the existence of a SPV where assets are transferred and in turn securities are issued to fund the transfer. Under a secure loan structure, cash is generated through a normal secured lending. No pool of assets is created or transferred, instead the originator is creating a fixed and floating charge over all his assets in favor of a security trustee. Although assets are general, the trustee has the right to take possession of the underlying claim in case of bankruptcy of the originator.

2. **Pass-through structure vs. Collateral structure**

   Under pass-through structures the SPV acts as a distribution device for the interest and cash flows generated by a pool of assets to which investors hold a participation. The collateral structure, known also as pay-through structure, widens the role of the SPV, who makes reinvestments to manage the mismatch between maturities of the underlying tool and the time pattern of payments investors expect. This way, unscheduled cash flow, possible under pass-through structures can be mitigated.

3. **Discrete trust structure vs. Master trust structure**

   A discrete trust refers to a structure in which one SPV holds only one pool of assets and investors’ risk and return can be more easily identified. A master trust structure involves a
large fund of assets that can change over time, and based on which securities can be issued in different time frames. Investors are generally attracted by this type of structure because at any time the trust holds more assets than the amount of securities issued, and they can benefit from diversification and payment according to the contractual pattern.

4. Revolving structure

Short-term assets such as credit card receivables or trade receivables are difficult to package and sell, as investors seek investments for a reasonable period. A SPV operating under a revolving structure is able to create a pool of short-term assets where the ones reaching maturity are replaced on continuous basis until the targeted amortization period (Kothari, 2006, p 91). Again, the payment pattern of obligors is managed so it cannot affect payments to investors.

3.2 Remarks

The brief description in the previous section underlines the main variables that led to the economic significance of securitization. Lending, investing and risk transferring became more accessible to financial and non-financial entities, and this was a revolutionary transformation for the financial markets and for the economies in terms of development and growth.

Highly flexible, securitization structures allow a more effective connection between liquidity holders and borrowers, stimulating the flow of credit and creating an equilibrium for the use of resources. Flexibility in financial innovation however, generates also a new set of risks, to which markets are not always ready to respond. Individual risk factors such as duration, prepayment risk, collateral fungibility and track record of credit performance (Segoviano et al., 2015) differ from structure to structure, and the lack of standardization increases the risk impact for investors, but also for the entire market.

For the purpose of this paper, specific risks are not treated in detail, however is important to note that the attractive features of securitized products led to an increasing number of investors seeking high yields, which in turn, generated a high pressure on the supply side to produce this assets. As a result, the structuring process became less determined by risk drivers, this having clear consequences on the industry practices, fueled also by a low regulated environment.

Securitization in 2015: Element of default or engine for the European economy?
3.3 Securitization: before and after

"Left unattended, [markets] are prone to instability, excess and abuse."

Mark Carney

Securitization, in the sense that is understood today, emerged with the US mortgage-backed securities (MBS) in the early 1970's, supported by government-guaranteed entities. By 1980's, US already developed the consumer asset-backed securities (ABS) market, while Europe just started its first RMBS issuance in the United Kingdom (Segoviano et al., 2013). Volumes have increased year by year, and the market saw significant changes in the composition of the industry over time. Private-label¹ securitization emerged as a response to the growing number of different types of investment funds in search for high-yield, safe-rated and fixed-income investments.

The increasing demand set off misaligned incentives along the intermediation chain, which became focused on their fee income rather than the quality of securities issued, causing a deterioration of due diligence practices and a growing number of complex structures. Creation of claims became part of the securitization process. Mortgage loans for example, were offered special features such as optional adjustability, negative amortization and interest-only payment. This practice was later called the "originate to distribute" model. As the quality of collateral declined and structures became more complex, the market started experiencing increasing default rates.

Fast-forward to the point of collapse, triggered by the US mortgage market - which in just five years brought subprime backed securities to a level as high as 20.1% from total mortgage issuance (Kiff et al., 2009) - the market experienced a drastic collapse in volumes, and existing securities faced significant downgrades. Global private-label securitization, which account for the most complex and opaque structures, went from a market of $5 trillion in 2006, to almost a complete exit from the US market, the leader in this sector. The US private securitization represented 56% of total issuance (Kiff et al., 2009) and its default required government intervention to maintain a certain level of stability in the market.

¹ Private-label securitization products comprise those not issued or backed by governments and their agencies.

Securitization in 2015: Element of default or engine for the European economy?
The International Monetary Fund (IMF) specialists defines securitization of the period 2000-2007 as a "self-reinforcing credit intermediation cycle, where a number of individual factors had a great impact on the formation of systemic risk, by facilitating excessive risk taking concentrated across the financial sector." (Segoviano et al., 2013). The concentration of risk in the banking sector, which at the end of 2006 amounted 51% of total risk exposure to the subprime market (Kiff et al., 2009, cited IMF, 2008) started the chain of downgrading economies world-wide.

The major role of securitization in the last financial crisis and the adversity faced afterwards can be attributed to five main components (Kiff et al., 2009; Segoviano et al., 2013):

1. **Flawed prudential regulation** - which was focused on credit, liquidity and counterparty risk and ignored the interconnectedness between the intermediation chains;

2. **Lack of transparency and asymmetry of information** - risk exposures were easily hidden from investors and regulators as accounting standards and supervisory measures did not develop at the same pace with securitization transactions.

3. **The "originate to distribute" model** - poor loan origination standards emerged as issuers were able to transfer the risks to third parties. Because they had no "skin in the game", they were not interested in the actual quality of the assets securitized, but rather on the ability to generate profits from high volumes of issuance.

4. **Complex securitization structures** - for example re-securitizations of ABS into collateral debt obligations (CDOs), and of CDOs into CDO-squares, as well as synthetic securitizations, created structures with so many layers that investors were hardly able to identify the risks and composition of the underlying assets.

5. **Heavy reliance on CRAs** - the active role played by CRAs in the securitization process by giving advice on the structure and level of credit enhancement to reach desired ratings, created the so called trend of "rating shopping", based on which the issuers would choose to make public only the highest ratings offered by one of the CRAs. This created the issue of conflict of interest and raised questions on the methodologies used for risk assessment. However, the increasing complexity of securities forced investors to outsource due diligence to the CRAs, which over time became indispensible to the financial markets. Further details on the market strength of the CRAs are discussed in a later chapter.
An issue of particular relevance regarding the ratings produced by CRAs is the fast downgrading experienced during the financial collapse. Studies show that “of all the ABS CDO tranches issued from 2005 to 2007 that were originally rated AAA, only 10 percent are still rated AAA by Standard & Poor’s, and almost 60 percent are rated single-B or less, well below the BBB-investment-grade” (Kiff et al., 2009). Even though downgrading did not reach the low levels of ABS CDOs for all securitizations, this trend covered most of outstanding securities of that period.

In spite of the market abuse of securitization structures, it would be unfair to treat the entire market as a single asset class. The performance of securitized assets varied significantly based on the type of underlying asset, market segment and maturity. (Segoviano et al., cited BIS, 2011). Taking for example European RMBS, which over the period between 2000 and 2014 had a loss of 0.2%, the performance was much higher than US RMBS which registered a loss of 7.9% over the same period (European Commission, 2015a). Characterized by a less complex structure and limited “originate to distribute” issuances, European securities managed to be superior to most sovereign debt, bank debt and many covered bonds and they continued to be mostly investment grade as shown in Figure 4.

In spite of the weak performance, the US securitization market saw a relatively fast recovery compared to the European market (Figure 5). One of the most important drivers was the government intervention, which covers almost 80% of the current outstanding securities. Incentives have been also created through regulatory intervention, by setting lower capital charges for banks investing in these instruments (European Commission, 2015a). Also, by fact that the US capital market is five times bigger than in Europe, we can deduce that losses have

Source: IMF, 2013
been distributed more evenly between banks and the capital market. However, there is no empirical evidence in this research to sustain this point of view.

This strategy of recovery was less valid for the European market. First, due to the crucial role played by banks, as main securities holders and issuers, and main financing source for the economies. Second, due to the underdeveloped capital markets across the member states. Even if European securities have had a much lower rate of default, banks’ exposure to US subprime securities, together with new imposed regulation on higher capital requirements and risk retention, gave rise to an immediate need to deleverage. As an alternative to securitized products, banks and market players focused on covered bonds, which are regarded as high quality instruments. This belief is based on the double protection provided for investors: the collateral and the unlimited liability of the issuers. In the same time, covered bonds benefit from special regulatory frameworks in many European countries, which favored the expansion of this market (ECB, 2011). However, despite having some common characteristics with securitized products, covered bonds do not provide the risk transfer benefits and regulatory capital relief associated with securitization.
Starting with 2008, European securitization was no longer a device for diversifying funding sources and for balancing risks on investors' portfolios. Issuance was concentrated in the banking sector at levels never met before, and new securities were mainly retained and used as collateral to obtain liquidity from the ECB and BoE. Figure 6 shows improvements over the last few years in terms of placed issuance, but the market remains concentrated and dependent on the banking sector.

Moreover, registered improvement does not reflect an uniform development of the market across the EU member states. In 2013, 85% of issuance was registered in Germany, Spain, Italy, Belgium and Netherlands (IMF, 2014a).

Differences are also encountered considering the type of underlying assets. European RMBS, CDOs and SME securitizations were most affected during the crisis and they represent the primary types of issuance, followed by wholesale business securitizations (WBS) and ABS (Figure 7).

Creating a framework in which benefits of securitization structures can be preserved and transmitted to individual enterprises (which are the main drivers of growth) has never been more important. Credit constraints, faced in particular by SMEs, can be reduced and foreign investment can be enhanced throughout the EU, favoring in particular those countries that are still fighting the repercussions of the last financial crisis.

Regulatory reforms for securitization further discussed in the next chapter aim to mitigate the potential risk to financial stability, while favoring participation by setting the grounds of a safe, sustainable and standardized market. The European share of government intervention amounts to monthly purchases in public and private sector securities of €60 billion through the

Securitization in 2015: Element of default or engine for the European economy?
Securitization in 2015: Element of default or engine for the European economy?

In particular, the ECB created the Outright Monetary Transaction (OMT) facility, under which the central bank purchases government securities issued by member states on secondary markets, having as primary objective the reduction of financial fragmentation in the Euro area (OECD, 2015).

4 An improved framework for European securitization

In the previous chapters, five major issues have been identified as main determinants for the collapse of securitization markets. Addressing this issues with specific reforms is the obvious approach towards the creation of a safe, sustainable and standardized framework. While this may be true for the US market, deterioration of the European securitizations was less determined by the abuse characterizing US securities, but rather it has been a result of the contagion effect caused by the interconnected financial markets. For this reason, the approach to restate securitization in Europe considers different factors shaped around market characteristics.

Since there are so many variables that a well-functioning European securitization market relies upon, understanding the reforms undertaken requires adopting a holistic view that pictures the interconnectedness and dependency of one variable upon another. On that account, a sound securitization framework is not dependent only on the regulatory regime of the financial market, but also relies on a series of indirect challenges which must be taken into consideration.

While information asymmetry, heavy reliance on CRAs and weak prudential regulation are issues present in the European financial framework as well, the research revealed the following aspects as being the main drivers that hold back development of a well-functioning European securitization market:

- Misalignments between national laws;
- Criteria, methodologies, definitions and requirements regarding disclosure and due diligence lack uniformity across the EU financial institutions;
- Lack of a clear reference point for securities risk evaluation;
- Sovereign rating affects the rating grade of securities.

Because one variable cannot be presented without another, this chapter aims to offer an overview of the legislative and non-legislative developments that shape the future of EU Securitization in 2015: Element of default or engine for the European economy?
Securitization in 2015: Element of default or engine for the European economy?

This twofold approach sets the structure of the chapter in an attempt to simplify the process of identifying the contribution of each element in addressing the issues underlined above.

Legislative developments refer to changes in the regulatory regime of financial institutions (as main issuers and investors) and to a series of measures undertaken regarding the market infrastructure and market abuse. While legislative reforms are concentrated on preventing bad practices, non-legislative initiatives focus on finding ways to make securitization attractive by addressing important obstacles faced by both issuers and investors. Finally, a particular focus is placed on the role of CRAs, for a better understanding of their influence on the economic recovery of the European member states.

4.1 The multilateral approach

Current reforms concerning the securitization market are based on the principles of the Single Rulebook, which aims to ensure a unified regulatory framework for the EU financial sector. Legal changes are illustrated in Annex 1 with the purpose of setting a timeframe of regulatory intervention for the financial sector, and underlying the steps towards uniformity of EU member states’ frameworks. Transformation is taking place at both market and institutional level, reaching the main participants and taking into consideration the gap created by differences between national laws.

While part of the regulatory reforms presented in this section are not directly related to securitizations, referring to operational activities, structure and corporate governance of financial institutions, they form an important part of the framework because they have a direct impact on industry practices.

4.1.1 Markets in Financial Instruments Directive (MiFID)

The financial crisis set in motion a re-examination of the primary forces driving the financial stability and brought into attention the systemic importance of the financial market infrastructure. Originally started as an Investment Services Directive, MiFID sets out the basic rules of conduct for the European financial market, having as primary objective bringing together the fragmented markets of the EU. The revised framework introduced in 2014 comprises two pieces of legislation: MiFID II Level 1 which will substitute almost completely the rules on authorization and organizational requirements for providers of investment services; and Markets in Financial Instruments Regulation (MiFIR - Level 2) which improves transparency and competition of trading activities (Field Fisher Waterhouse, 2014).

Securitization in 2015: Element of default or engine for the European economy?
The measures are being taken to address perceived failings in the way pre-existing requirements were implemented, and although they might not look that significant taken individually, if we consider the whole range of changes, firms might encounter difficulties and high costs of implementation.

As for the regulatory impact on securities, the most important is the introduction of a new category of venues, the Organized Trading Facilities (OTFs), which will only be able to trade non-equity instruments. At the product level, regardless of whether a firm is manufacturing or just selling financial instruments, arrangements for product governance must include not only having the proper expertise for assessing the nature and risks of the product, but also ensuring that products are suitable for clients according to their ability to understand the implications of the undertaking. Even if for some countries product governance is not a new element, this aspect will reshape firms’ accountability as the new regime empowers the supervisory authority, ESMA, to temporarily intervene where it sees possible market failures or investor protection issues. In this regard, National regulators will have more permanent powers to intervene (FCA, 2014).

Disclosure to both trading venues and clients is another area of focus for the new regime. The pre and post-trade transparency is extended to a wider range of products for which firms must make information publicly available as close to real-time as possible. However, requirements regarding the existence of a consolidated tape (an electronic program that provides continuous, real-time data on trading volume and price for financial instruments) will not be applicable to non-equity instruments at least until 2018 (FCA, 2014).

Regarding investor protection and conduct of business, the new regime aims to ensure that incentives do not cause conflicts of interest by placing restrictions on firms receiving payments of commissions for independent advice and discretionary portfolio management. While the definition of independent advice is left at national discretion, MIFID II intervenes by limiting the range of products that can be traded on an execution-only basis (without advice).

Although full implementation is targeted at the beginning of 2017, issuers and traders of securitized products will have to take into consideration the additional costs that might arise from complying with the new legislation and the impact on their trading activity. This affects in particular firms in countries where flexibility of the previous regime has been more pronounced, affecting the competitive equality between regulated markets and trading facilities.

Securitization in 2015: Element of default or engine for the European economy?
4.1.2 Market Abuse Regulation

Technological developments and financial innovations characterizing markets in the recent years generated new risks to which they were not always ready to respond. An issue of particular relevance is the increased possibility to manipulate the financial markets. Differences in laws between the EU member states, where criminal sanctions are either not available, or they are not implemented effectively, favored market manipulation and insider trading, the two operations that define the market abuse, so much found in securitization practices.

In response to the need for an uniform interpretation of the EU market abuse framework, Regulation No 596/2014 and Directive 2014/57/EU have been established to set the new regulatory framework which will be enforced in July 2016 in all member states. The supervisory authority, ESMA, offers technical advice on implementation according with the member states particularities. The new regime widens the application of rules to a greater range of securities and derivatives and extends the imposed requirements to all regulated trading platforms. Freshfields Bruckhouse Deringer's report of October 2014 underlines the additional requirements that are focused on:

- implementing requirements that keep peace with the new trading platforms such as over the counter (OTC) and high frequency trading (HFT); in this regard, some types of abusive algorithmic and high-frequency trading strategy will be expressly forbidden;
- eliminating possibilities to manipulate benchmarks (i.e. LIBOR);
- imposing detailed record-keeping requirements and timely disclosure to supervisory authorities;
- reinforcing the investigative and administrative sanctioning powers of regulators;
- encouraging whistleblowers by introducing financial incentives;
- ensuring that criminal offences are punishable equally across Europe.

4.1.3 Banking sector

Restating the stability in the banking sector continues to be the key to a sound financial framework, as banks work on both sides of the divide. Securitization, a capital markets’ device, became in the years following the financial crisis a device for European banks to gain access to liquidity from BoE and ECB. The ever increasing role of securitized products on banks’ Securitization in 2015: Element of default or engine for the European economy?
balance sheet required adequate standards for exposures and a sufficient risk sensitivity of the framework. This determined regulators to introduce significant changes regarding treatments of securitizations in the new regime under the Basel Accord.

The Implementation of the revised provisions of Basel III is taking place through the Capital Requirements Directive (CRD IV) and the Capital Requirements Regulation (CRR).

Direct application of CRR in all member states is the main transformation with immediate effect on the European financial sector and securitization respectively. Adopting a common framework where definitions, prudential treatment, liquidity, risk retention, disclosure and due diligence are equally recognized and applied in all European member states, can be considered a solid base for the reforms targeted by the European Commission. However, the economic and jurisdictional differences of the member states require a relatively high level of flexibility and this is why the new European regulatory framework for the banking sector is not limited to the application of Basel III provisions, but it also introduces a number of important changes that allow national competent authorities to set adequate risk weights and stricter criteria based on default history and market characteristics (Allen&Overy, 2014a).

There are three areas of regulatory capital requirements in which securities can either be part of the covering assets, or they can influence calculations of total risk weighted assets held by banks (Allen&Overy, 2014b):

1. **Capital requirements** - which must be at least 8% of risk weighted assets at all times.

2. **Liquidity Coverage Ratio (LCR)** - which requires banks to hold high quality liquid assets (HQLAs) to meet net liquidity outflows under a stress scenario lasting 30 days. The LCR on 1 January 2015 was set at 60% and it will be raised yearly by 10% until reaching 100% in 2019. Securities must meet certain criteria to be accepted as HQLAs.

3. **Net Stable Funding Ratio (NSFR)** - which is concerned with the types and amounts of equity and liability financing able to cover funding over a one year period in the case of extended stress.

The revised Basel III framework brings major changes considering the three areas of influence of securitized products in the banking system, focusing on the following aspects (BCBS, 2014):

Securitization in 2015: Element of default or engine for the European economy?
1. Hierarchy and credit risk

The new framework reduces the complexity of the hierarchy of possible approaches in capital charge calculation, which no longer relies on the role played by banks in the securitization transactions - investor or originator. Bringing more clarity in calculating the capital charge, internal risk assessment is favored and only three main approaches are available. Should information be insufficient for using the approved methods, a risk weight of 1,250% will be assigned to the exposure. This sets incentives for a more severe due diligence regarding securitized products and reduces the use of external ratings in assessing the quality of on and off-balance sheet exposures.

2. Definitions

Regulatory capital requirements depend on whether a transaction is subject to the securitization framework or not. Under Basel III, banks must consider the economic substance rather than the legal form to determine the treatment. Revised definitions regarding traditional and synthetic securitization elements bring a clearer vision of transactions covered by this framework. Methodologies and definitions for the new elements or calculating procedures, such as the tranche maturity, exposure amount and senior exposure, facilitate the understanding and implementation of the new standards.

3. Operational requirements for the recognition of risk transfers

Recognition of risk transfers differs according to the structure of securitization transactions. For traditional securitizations, the focus rests on the bankruptcy remoteness of the SPV, that requires a legal statement to confirm the isolation of the assets. Banks must also prove the risk transfer to third parties and the limitation of investors’ claims only to the underlying assets. Restrictions have been set regarding the possibility to alter an exposure to a pool of assets, for modifications of credit enhancement after transaction’s inception, for changes regarding the yield payable and termination options.

For synthetic securitizations, Basel III framework maintains criteria for the use of Credit Risk Mitigation (CRM) techniques already set under Basel II, and places a set of specific conditions for the instruments used to transfer credit risk. The purpose is to maintain the eligibility of the amount of risk transferred in the event of deterioration, therefore contracts should not contain Securitization in 2015: Element of default or engine for the European economy?
clauses that require alteration of the underlying exposure, modifications of credit enhancement after transaction's inception or modification of interest rates or cost adjustments. Contracts should also have a legal statement of enforceability.

Additional requirements for risk transfer recognition have been implemented for structures considered more complex and carrying different layers of risk exposures.

4. Due diligence requirements

First requirements refer to information to calculate the assets risk-weight. On a regular basis, banks must collect performance information on the underlying pools regardless the on/off-balance sheet treatment, and are required at all times to be aware of all structural features of a securitization exposure. For re-securitizations, banks must hold information not only on own exposure, but also regarding the issuer and the structure of other tranches of the same underlying pool.

5. Treatment of securitization exposures

To reduce the existing reliance on external rating, the new framework favors the calculation of risk-weight internally. Explicit formulas and scenarios provide the parameters for every type of exposure. When using the external rating approach, risk weights are imposed based on maturity and seniority. The starting base for allowed adjustments can be viewed in Annex 2. Other special provisions with the purpose of disclosing real exposures have been imposed, in particular for the case of implicit support and the capital impact resulted. For re-securitizations, the new framework imposes a floor risk weight of 100%

Basel III framework introduces also additional supervisory review processes for securitized structures which can be viewed as a mean to enhance cooperation between national authorities towards uniformity and standardization of procedures in the banking sector. The new framework, based on internal evaluation and severe disclosure requirements, allows supervisory authorities to collect significant data regarding the quality and performance of EU securities. Equal treatment, greater monitoring and standardization are targeted by the new banking regime as they represent the common objectives of all regulatory reforms for securitizations.
4.1.4 Insurance sector

The insurance sector is regulated by the so-called ‘solvency regime’. Directive 2009/138/EC (Solvency II) is a regulatory project that continues the regime installed with Solvency I in 2002, promoting a more uniform regulatory frame of reference across the EU member states for insurance and reinsurance undertakings. One legislation applicable for all insurance companies, and a single authorization to operate in the entire EU guarantees the same level of investor protection and equal operating conditions across the sector.

Accounting for one of the vastest sources of funding in the EU, insurance companies use securitized products to gain access to investments that would otherwise be highly illiquid and inaccessible assets. The new framework favors the engagement of insurance companies in an active role for developing the securitization market, with the purpose of achieving long-term growth objectives for financing in the EU. This is why the new regime is construed in a manner in which it ensures sufficient consumer protection, and in the same time, it comforts an increase in securities holdings by removing national restrictions on the composition of the asset portfolio.

Commission Delegated Regulation 2015/35 (Solvency II Delegated Act) is the last set of improvements to the regime, bringing additional provisions for a comprehensive regulatory program which can be synthesized according to the three pillars (Lloyd, 2015):

**Pillar 1 – Financial Requirements**

Capital requirements are determined based on the risk profile of undertakings as well as on the way such risks are managed. Insurance and reinsurance activities are expected to hold sufficient funds to absorb losses and to meet the risk of undertakings. Provisions that have influence on securitizations refer to the introduction of a uniform model for asset valuation and for capital retention calculations. This is important in particular for the two levels of capital requirement:

1. Minimum Capital Requirement (MCR) – which should respond to possible degradation of financial position of undertakings;
2. Solvency Capital Requirement (SCR) – which is based on explicit quantitative measurement of the risk undertakings operations and investments, and focused on risk management.

Securitization in 2015: Element of default or engine for the European economy?
By combining the uniform asset valuation model and aspects of risk management in determining the capital requirements, firms' accountability in relation to securitization exposures will increase, enabling the creation of more responsible industry practices.

**Pillar 2 - Governance and Supervision**

Provisions are focused on the creation of an effective risk management system. This implies the existence of an internal model for risk assessment - Own Risk and Solvency Assessment (ORSA) - which allows timely management intervention for balancing the risk exposure of the portfolio, and in the same time, reduces the reliance on external rating. The model favors standardization of information for securitized products and data aggregation at supervisory level. Under the new regime, supervisory authorities are not only focused on compliance, but they also take an active role in evaluating insurers’ risk profile and quality of the management system.

**Pillar 3 – Reporting and Disclosure**

Companies are required to have an adequate and transparent organizational structure with clearly identified accountable parties and to ensure an effective system for the transmission of information. Disclosures refer to public information for stakeholders and also to private information towards supervisory authorities which include strategies, processes and procedures used to identify, measure and managed risks. This favors identification of best practice in terms of quality transparency, simplicity and standardization.

**4.1.5 Asset management**

The asset management business has been regulated until 2013 at a national level, following a series of Directives which set the background for local legislation regarding authorization, operational procedures and disclosures for Alternative Investment Funds Managers (AIFMs).

In the context of a prolonged recovery period after the last financial crisis, Alternative Investment Funds (AIFs) represent an important source of funding for the European economy. Having AIFs equally exposed to systemic risk, like the rest of financial institutions, created the necessity for a coordinated and uniform regulatory framework across the EU member states. One legislation applicable for all asset management activities and a single authorization to operate in the entire EU guarantees the same level of investor protection and equal operating conditions for all AIFs. In this regard, Commission Delegated Regulation 231/2013 has been

Securitization in 2015: Element of default or engine for the European economy?
installed to avoid a delayed application of Directive 2011/61/EU (the latest amendments to the framework) in the member states and to ensure direct applicability of detailed uniform rules concerning the operating activities of AIFMs.

Although the regulatory regime is focused on regulation of the fund manager rather than on the fund itself, requirements are ultimately installed to safeguard the proper structure and conduct of AIFs (AIMA, 2013). Risk retention and due diligence requirements vary according to the amount of assets under management. This is why the regime consists of specific provisions clarifying a unique method of calculation for the total value of assets under management, by setting the steps and information necessary and a clear distinction of asset category included in the calculation. AIFMs must disclose information about the investment fund strategies adopted and any potential conflicts of interest as they are required to cover liability risk arising from professional negligence with additional funds.

Turning our focus on the treatment of securitization exposures, a first measure of the regulatory framework imposed in all European member states was to eliminate discrepancies between related definitions given in national laws by adopting the CRR and CRD IV definitions. Regarding investment in securitized products, legislation involves extensive due diligence and reporting obligations for an appropriate risk assessment which include three main compulsory requirements (AIMA, 2013):

1. **A risk retention requirement** - Securities must be part of a pool for which the originator or sponsor must retain a net economic interest of not less than 5%; exemptions are applicable when securitized positions are guaranteed by government-related institutions.

2. **Qualitative requirements concerning sponsors and originators** – AIFMs must ensure that the originator or sponsor:
   - has well-defined criteria for loan origination;
   - uses effective management systems for proper risk assessment of portfolios;
   - has a well-defined risk and diversification strategy stated in their policy;
   - gives access to all information regarding the underlying assets, cash flows and all relevant data so the AIFM can perform a proper due diligence;
   - discloses any events that can alter the regulatory economic interest retained in a portfolio.

3. **Qualitative requirements concerning securitization exposure** – AIFMs must at all times monitor securitization exposures and must have in place an appropriate system for risk
mitigation. To this extent, AIFMs are required to disclose to the competent authorities the following:

- explicit disclosure of originator's regulatory economic exposure in the portfolio;
- risk characteristics of the individual securitization position;
- risk characteristics of the underlying assets and methodology and valuation where applicable;
- historical performance of securities issued by the same originator or sponsor;
- due diligence statements performed by originators or sponsors;
- all the structural features that can have an influence on the performance of securities and can trigger variations in the level of risk exposure undertaken.

The level of disclosure imposed to AIFMs regarding securities investments requires a strong collaboration with originators and sponsors and imposes additional costs which can hold back participation to the securitization market. The EU balances this additional compliance costs with the set of initiatives underlined at the beginning of this report, ensuring an equilibrium between severe legislative framework and incentives for participation.

4.1.6 Credit Rating Agencies

The regulatory framework for CRAs is another legislative factor of influence for the securitization market. Entirely unregulated until 2006 in the US, the CRAs met the first legislative requirements in Europe in 2009. Regulation 1060/2009 sets the Regulatory Technical Standards for:

1. Disclosure requirements for issuers, originators and sponsors on structured finance instruments;
2. Reporting requirements for CRAs on fees charged by CRAs to their clients;
3. Reporting requirements to CRAs for the European Rating Platform.

The fundamental scope of the regulation is to increase transparency of ratings and the underlying methodology by providing rules of conduct which ultimately will allow the market players to be eligible for certification. The regulation has been subsequently amended and supplemented as exposed in Annex 1, in order to provide a more stable framework for risk mitigation and market abuse reduction. For greater monitoring of CRAs activities, ESMA has been established as the European Supervisory Authority, with the role to increase uniformity of rules across the member states.
The last review addresses new issues arising in relation with sovereign ratings, and clarifies the definition of structured finance instruments that qualify as securities, providing also standardized disclosure templates. New rules on information reported, frequency of reporting and reporting procedure, all implemented at the EU level, help eliminating possible discrepancies between national legislations and will provide an unique database of information for the entire EU market.

4.1.7 Prospectus

Addressing directly the issue related to asymmetry of information, the regulatory developments concerning the prospectus that accompany each security issuance are also focused on the implementation of the same disclosure requirements across the EU member states.

Prospectuses take the form of legal documents drawn by securities issuers to provide the necessary information for investors' decision making. While the main objective of regulatory requirements is to enhance investors' protection, developing standardized disclosures valid for all EU member states is equally important as it influences the administrative costs for the issuers and enhances comparability.

Starting with Regulation 809/2004 in force since 1 July 2005, a series of directives and regulations (see Annex 1) have been implemented with the purpose of harmonizing the structure, content, approval and distribution of the prospectuses related to securities offered to public or admitted to trading on a regulated market operating within an EU member state. The flexibility of securitization structures raises difficulties in creating a single set of standards valid for every issuance, however past experiences revealed a number of shortcomings that have been reduced by the continuous improvements of the framework. Some of the most important additions are:

- enhanced disclosure requirements for issuers with a complex financial position which must include all details regarding linked entities and financial commitments;
- the creation of categories for securities and relevant minimum information required for each category;
- prospectuses should contain reports prepared by independent accountants or auditors;
- convertible and exchangeable debt securities have been included in the framework;
- specifications on minimum situations where publication of supplements to the prospectus is required;

Securitization in 2015: Element of default or engine for the European economy?
implementation of technical standards for supplements for the purpose of disclosing every significant new factor affecting the assessment of securities.

Last additions to the prospectus regulation represent a support to disclosing requirements under the revised framework of financial institutions. The regime for securitization benefits from this multilateral approach in terms of reduction in complexity, standardization, increased transparency and better industry practices.

4.2 Non-legislative Aspects

Other than regulatory intervention, a set of initiatives have been developed within the securitization industry to improve the framework in which market participants operate. Although at a very early stage, this initiatives are believed to improve the functioning of the market and to encourage investors’ and issuers’ participation.

4.2.1 Criteria for simple, transparent and comparable securitizations

One of the reasons for which securitization volumes contracted in the years post-crisis is the lost confidence which eroded the investor base. Globalization of financial markets has been embraced as a straightforward access to new opportunities, but the uncertainty originating from differences in regulatory frameworks, complex structures and asymmetry of information created ambiguity in risk assessment, which was amplified in the context of the financial collapse. To bring back investment levels of the peak prior the crisis, developing a clear reference point for securities risk evaluation became fundamental.

A first initiative took the form of a non-profit, industry-led project launched in June 2012, aiming to build investment guidelines and a ‘label’ defining best practices in terms of quality, transparency, simplicity and standardization (PCS, 2012). The ‘Prime Collateralised Securities’ (PCS) label offered by this structure aims to increase market participation by offering valuations that can lead to a degree of certainty regarding access to liquidity from central banks. In the same time, having a base of distinction for securities considered eligible by central banks, can regain confidence of a wider investor base. While the PCS criteria are mainly addressed to issuers, relating to a redefinition of industry practices, risk evaluation standards require also an approach based on investors’ perspective.

In 2014 a Task Force on Securitisation Markets (TFSM), has been established by BCBS and IOSCO to identify factors influencing the development of securitization markets and to establish criteria that can help setting industry standards for valuation (BCBS, 2014b). Securitization in 2015: Element of default or engine for the European economy?
Investors’ adversity and difficulties in risk assessment for securitization structures have been identified as being the two fundamental factors that hinder market development, in particular concerning non-bank investors. We can say that the financial crisis had a turnaround effect on securitized products. Characteristics previously identified as means to enhance investor protection (such as protection arising from structural features and the existence of credit enhancements that could compensate lower rated underlying assets) proved to be a source of risk. The increasing complexity of structures made it difficult for investors to identify the real risk undertaken and to price securities accordingly. Also, the level of credit enhancement was proved insufficient to cover losses from low performance assets.

The mandate resulted in a set of defining criteria for long-term securities based on three key types of risks: asset risk, structural risk and fiduciary and servicer risk. This criteria have been designed to increase valuation certainty for both investors and issuers. However, they should not be used as a substitute for due diligence, but rather as support for own analysis. The process of identifying criteria for safe securitizations was based on three main characteristics:

**Simplicity** – refers to the complexity of structures and characteristics of underlying assets.

**Transparency** – refers to the availability of sufficient information regarding the underlying assets, structure of transaction and the parties involved, produced in a comprehensive manner.

**Comparability** – refers to the homogeneity of information across jurisdictions that can provide a base for comparison between securitized products within an asset class.

Table 4 underlines the 14 criteria developed by TFSM to help identifying securitizations that can be considered simple, transparent and comparable. By taking into consideration this factors, investors should be able to evaluate the risks of a securitization transaction with more certainty. Issuers on the other hand, can set this criteria at the base of the process of structuring and information disclosure, because this will determine the future demand for securitized products.
The findings of TFSM have been released for consultation (BCBS, 2014b) considering the incorporation of identified criteria into the securitization capital framework. The joint response of BoE and ECB (BoE and ECB, 2015) suggested adopting an appropriate sanctioning mechanism. However, the final draft (BCBS, 2015) does not indicate if criteria will become legally binding, therefore, at least for a while sanctions are not considered.

Nonetheless, market participants in their responses, recognized the importance of having a base for risk evaluation, and acknowledged the role of this criteria in helping investors in the decision-making process. The final draft (BCBS, 2015) addresses doubts about the interpretation and implementation of the identified criteria and offers additional considerations regarding each factor. Although at this moment there is no empirical evidence regarding the use and impact of this criteria, authorities believe in a positive impact on demand for securitized products.

### 4.2.2 Sovereign risk and securities rating

The market conditions following the last financial crisis caused significant rating downgrades for many European countries. The principles applied in assessing sovereign ratings became of outmost importance for the EU, as downgrades have immediate effects in different domestic sectors due to specific linkages, shared exposure and contagion risk for issuers in the same sovereign environment. In fact, CRAs responded to the macroeconomic and financial market

---

**Table 4: Criteria for simple, transparent and comparable securitizations**

<table>
<thead>
<tr>
<th>Section</th>
<th>Criteria summary</th>
<th>Purpose(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Asset risk</td>
<td>1. Nature of the assets</td>
<td>S, T, C</td>
</tr>
<tr>
<td></td>
<td>2. Asset performance history</td>
<td>T, C</td>
</tr>
<tr>
<td></td>
<td>3. Payment status</td>
<td>S, T, C</td>
</tr>
<tr>
<td></td>
<td>4. Consistency of underwriting</td>
<td>S, C</td>
</tr>
<tr>
<td></td>
<td>5. Asset selection and transfer</td>
<td>S, T, C</td>
</tr>
<tr>
<td></td>
<td>6. Initial and ongoing data</td>
<td>S, T, C</td>
</tr>
<tr>
<td>B. Structural risk</td>
<td>7. Redemption cash flows</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>8. Currency and interest rate asset and liabilities mismatches</td>
<td>S, C</td>
</tr>
<tr>
<td></td>
<td>9. Payment priorities and observability</td>
<td>S, T, C</td>
</tr>
<tr>
<td></td>
<td>10. Voting and enforcement rights</td>
<td>S, T, C</td>
</tr>
<tr>
<td></td>
<td>11. Documentation disclosure and legal review</td>
<td>T, C</td>
</tr>
<tr>
<td></td>
<td>12. Alignment of interests</td>
<td>S, C</td>
</tr>
<tr>
<td>C. Fiduciary and servicer risk</td>
<td>13. Fiduciary and contractual responsibilities</td>
<td>T, C</td>
</tr>
<tr>
<td></td>
<td>14. Transparency to investors</td>
<td>T</td>
</tr>
</tbody>
</table>

\(^1\)S = simplicity; T = transparency; C = comparability.

Source: BCBS, 2015
trends by placing a cap on the number of notches above the sovereign that an issuer can be rated (Tichy, 2011). The introduction of the "sovereign ceiling policy" is believed to have determined an increase in the financial problems of the EU market participants, by incrementing the cost of borrowing.

Securitization, as a structured finance device, gives issuers the possibility to limit vulnerability to sovereign environment through risk isolation and external credit enhancement. However, meeting the conditions for a higher-than-sovereign rating requires market players to prove sufficient external financing resources and limited exposure to sovereign-linked guarantees, securities and entities. As the European financial market is highly fragmented and shaped around national borders, this requirements prove to be very hard to meet. This means that European securities, although characterized by less complexity and lower rates of default, will be disfavored in many countries and might not be financially attractive.

Having sovereign ratings influencing domestic issuers can be viewed as a top down approach, which many argue that it sets another barrier to the recovery of the European economies. However, the recent events generated new perspectives regarding sovereign ratings. For example, Prof. Dr. Edward Altman, Director of Research in Credit and Debt Markets at the NYU Salomon Center for the Study of Financial Institutions, supports instead a bottom-up perspective for sovereign ratings, which starts with the analysis of the non-financial private sector, followed by the analysis of banks and the financial sector in order to determine the risk exposure of a country.

Another new approach to sovereign ratings is introduced by the International Nonprofit Credit Rating Agency (INCRA) based in Germany. The idea of a non-profit CRA is not new, however INCRA is the first that actually provided a new business model based on transparent methodologies and new criteria that are fundamental in understanding the real factors defining the rating of a country. Moreover, the non-profit structure breaks the conflict of interests of

<table>
<thead>
<tr>
<th>Table 5: INCRA Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.00 - 10.00</td>
</tr>
<tr>
<td>7.70 - 7.99</td>
</tr>
<tr>
<td>7.30 - 7.69</td>
</tr>
<tr>
<td>7.00 - 7.29</td>
</tr>
<tr>
<td>6.70 - 6.99</td>
</tr>
<tr>
<td>6.30 - 6.69</td>
</tr>
<tr>
<td>6.00 - 6.29</td>
</tr>
<tr>
<td>5.00 - 5.99</td>
</tr>
<tr>
<td>4.00 - 4.99</td>
</tr>
<tr>
<td>3.00 - 3.99</td>
</tr>
<tr>
<td>2.00 - 2.99</td>
</tr>
<tr>
<td>1.00 - 1.99</td>
</tr>
</tbody>
</table>

Source: INCRA, 2014

Securitization in 2015: Element of default or engine for the European economy?
traditional CRAs and makes results publicly available.

Aiming for transparency, accountability and quality of ratings, INCRA introduces new qualitative indicators that take into account socio-economic and political aspects of the sovereign entity. Traditional macroeconomic analysis based on statistical quantitative data drawn from official sources are completed by the so called "forward-looking indicators" developed by INCRA, which can be viewed in Annex 3. This new indicators take a threefold approach: Political, Economic and Social Stability, Steering Capability and Reform Capacity and Track Record of Past Crisis Management, aiming to highlight countries' potential to meet their debts by providing a holistic view of countries' socio-economic and political prospects.

The table below presents a comparison between sovereign ratings of the main CRAs and INCRA. The list of countries is based on available data from INCRA.

**Table 6: Sovereign ratings comparison**

<table>
<thead>
<tr>
<th>Country</th>
<th>Outlook (CRAs)</th>
<th>S&amp;P</th>
<th>Moody's</th>
<th>Fitch</th>
<th>INCRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Stable</td>
<td>AAA</td>
<td>Aaa</td>
<td>AAA</td>
<td>8,1 (AAA) Stable</td>
</tr>
<tr>
<td>France</td>
<td>Negative</td>
<td>AA</td>
<td>Aa1</td>
<td>AA</td>
<td>7,7 (AA) Negative</td>
</tr>
<tr>
<td>Italy</td>
<td>Stable</td>
<td>BBB-</td>
<td>Baa2</td>
<td>BBB+</td>
<td>7,2 (AA-) Negative</td>
</tr>
</tbody>
</table>

**Source:** Author's reproduction

**Note:** Based on data from electronic platforms of S&P, Moody's, Fitch and INCRA, retrieved on 15 July 2015.

While stronger economies (Germany and France) drive the same ratings from all institutions, the introduction of more qualitative data results to favor economies - in this case Italy - where the impact of the financial crisis has been more severe. Given the high level of public debt characterizing many of the European countries, taking a bottom-up approach can bring better indicators for the financial situation of individual countries.

There is no evidence regarding the impact of a non-profit agency joining the credit ratings sector, however, the well-organized structure of INCRA promises significant changes at the European level.
4.3 Remarks
After seeing the changes influencing the forces that combine to make EU securitizations- at both micro and macro-level - we can form a base for a final judgment of whether the issues previously identified have been addressed effectively and whether the confidence in securitization structures can be restated.

Although many of the reforms and initiatives undertaken are at an early stage, we can estimate the positive consequences of the simultaneous efforts of markets and institutions across Europe.

A final aspect, treated in the next chapter, refers to the possible dynamics of supply and demand for financing, considering securitizations as means for transfer of resources.

5 Securitization: possible contributions to financial stability. Evidence from five European countries

Even though changes in the European regulatory framework over the past years have been shaped around the creation of an unified market, the very diverse situations across the European countries require different solutions conforming with market necessities.

With regard to the securitization framework, although is early to anticipate the real economy implication of reforms, a certainty is the significant resources required for the implementation process, at both national and institutional level. From a cost/reward perspective, this raises questions on how securitization can address the needs of individual countries and what are the possible contributions to the European financial stability. On that account, this chapter will take a closer look at five European countries. The choice of four members - Germany, United Kingdom (UK), Luxembourg and Romania - and a non-member - Switzerland - aims to offer an overview of the financing needs embodied in markets that are connected by territorial, political and economic bounds, but however present significant differences.

Understanding the extent of financing constraints faced by European countries and the market imperfections regarding both supply and demand side, will allow identifying the role securitization can play in balancing the flow of funds across Europe.
5.1 Demand for financing

In line with European market trends, the five countries under analysis present similar market structures, dominant by SMEs, with a share between 99,3% and 99,7% of the market (European Commission, 2014a; OECD, 2014). We will concentrate therefore on the need for finance of SMEs, as main drivers for employment and growth in the European economies. Due to information asymmetry, Switzerland will be analyzed individually, while the four member states will have a comparative-based analysis. However, uniformity will be achieved by focusing on the following factors:

- Access to bank loans;
- Access to public financial support;
- Trends in the cost of borrowing for SMEs;
- Liquidity problems;

5.1.1 Switzerland

Characterized by a solid domestic economy, Switzerland managed to avoid recession despite the unfavorable European conditions following the last financial crisis. The impact of the European reforms for the Swiss market results from bilateral agreements, but more important, from the high import-export dependency of Swiss entities on the EU market. In particular for the financial sector, the introduction of the branch requirement through MIFID II, could lead to a reduction of cross-border services by Swiss financial institutions.

Investors' perception of Switzerland as a "safe heaven", backed by a favorable regulatory framework and strong financial system, attracted significant capital pre and post-crisis. The financing needs of the market, from SMEs to the very public sector, were met through attractive bank agreements. However, in the past years, federal and cantonal bond issuance increased, followed by some of the large enterprises.

Although at a lesser extent in comparison with European countries, the SME sector faces financing constraints also in Switzerland, one of the most important factor being the high cost of due diligence for banks. In spite of the significant fall in loans approved for SMEs in 2012, government intervention drove to a lending growth from 81,2% in 2007 to 88,4% in 2013. SMEs registered more favorable standards and interest rates, in particular in the last two years (OECD, 2015).
With respect to venture capital investments, Swiss SMEs saw a decline in recent years due to the overall perception of higher risk associated to equity investments. On another hand, liquidity issues related to payment delays recorded significant reductions, allowing more financing from own capital (OCDE, 2015).

Regarding the government intervention, a SMEs policy has been implemented to ensure that operating conditions are as favorable as possible. The policy is focused on facilitating business financing, easing the administrative burden, enhancing collaboration and communication with the federal government. A special attention is given to improve access to external markets and research and innovation (EAER, 2013). There are currently four government cooperatives that assist SMEs in obtaining bank loans, taking a high share of the risk exposure (OECD, 2015).

Historically, Switzerland has been a source of funding for European countries, rather than being on the demand side. The policies in place for SMEs ensure that the overall demand is met. However, securitization can have a significant impact on the means for transfer of resources, as we will see in a later section.

5.1.2 EU Member States
For the analysis of the European members, we have on the one side Germany, UK and Luxembourg, countries with strong economies, and on the other side, we have Romania, representing the Central and Eastern Europe (CEE). Looking at the two main categories of countries, we seek complementarities for best addressing the individual market necessities.

The European Commission has set a guideline for monitoring the framework in which SMEs operate, in order to identify shortcomings that can affect the main drivers for jobs and growth for the EU economies. Figure 8 illustrates the variables in relation with the level of access to finance for SMEs in the countries under consideration, which form the basis for the comparative analysis.

In general, access to finance has been easier to obtain in the more developed countries. Luxembourg and Germany present the percentage of rejected loan applications close to 0%. However, the cost of borrowing in Germany is significantly higher than the EU average, followed by the UK. Given the strong financial market infrastructure of both countries, developing SMEs securitizations can contribute to lower the overall cost of borrowing in this...
markets. In particular for the UK, SMEs securitizations can reach the share of rejected loans, which is the highest between the observations.

Although the willingness of banks to lend saw positive developments in all countries under consideration, the level of collateral requirements might hold back businesses from new investments.

**Figure 8: Access to finance for SMEs**

![Bar chart showing access to finance for SMEs across different countries.](chart.png)

**Source: Author’s reproduction based on European Commission, 2014a**

Liquidity issues related to payment delays registered favorable positions for all countries but Romania.

Regarding the public support, each country has in place different policies and investment grants to help SMEs get access to credit. Luxembourg results as having the most solid position regarding government grants and contracts, followed by Germany and Romania.
5.2 Supply of financing

The asset management industry is composed of 32% Pension Funds, 42% Insurance Companies, 3% Banks and 23% Other Institutional investors (EFAMA, 2014).

According to the European Fund and Asset Management Association (EFAMA), European asset managers held 23% of the debt securities issued by euro area sectors at end 2012, and 31% of shares and other equity issued by euro area corporations.

Management of assets in Europe is concentrated around a small number of financial centers (Figure 9). Following our objective to seek complementarities for best addressing the individual market necessities, and to seek the way in which securitization can address them, a significant issue has been identified in relation with the asset-liabilities matching in the European insurance companies, which represent almost half of the assets under management.

In particular, Germany presents an important gap, having the duration of liabilities twice the duration of assets. The same is valid for Luxembourg, even if the number of years is significantly lower. The UK results more balanced, however having the duration of assets higher than the liabilities shows a shortage of attractive investments. Romania instead has a perfectly balanced portfolio, but is concentrated in the medium term rather than long term.

What this means for the European financial stability is that resources are not engaged to maximize the use and benefits. Countries that face more severe financial constraints lack the Securitization in 2015: Element of default or engine for the European economy?
means for development, as the current framework does not connect liquidity holders with borrowers in an effective way. In fact, Figure 11 shows CEE countries' dependency on government support and the minimal presence of funding from the institutions that actually hold the European assets.

**Figure 11: Sources of capital raised for CEE private equity in 2009-2014 (% of total)**

![Bar chart showing sources of capital raised for CEE private equity from 2009 to 2014](chart.png)

Source: EVCA, 2014

As many investors showed adversity to equity funding, due to the higher risk undertaken, developing the structured finance market in a well-functioning framework can open many opportunities at both market and institutional level. The contribution of securitization to the European financial stability derives from the very features that determined the growth of the market in the first place: diversifying funding sources, diversifying the borrower base, connecting liquidity holders with borrowers through structures designed according to their needs, and reducing the issue of most concern - engaging the resources in a way that maximizes benefits for both issuers and investors.
6 Conclusion

6.1 Conclusive remarks

Following the analysis of the various factors influencing the European current framework for securitizations, we can formulate a definition for what accounts as a well-functioning market for the EU. This definition is based on five main determinants: regulatory uniformity, investors protection, best industry practices, sound supervision, and ultimately, isolation from sovereign rating downgrades.

Restating market participants’ confidence in the new framework requires a clear evidence of improvement, which, at this stage, is early to anticipate. However, considering the regulatory changes and the non-legislative initiatives within the industry, we can estimate a positive outcome based on the five determinants:

Regulatory uniformity

Each improvement to the framework added throughout the years has been an additional step towards the creation of an unified market. The current framework demonstrates the common grounds through definitions, prudential treatment, liquidity, risk retention, disclosure and due diligence equally recognized and applied in all European member states.

Investors protection

Investors protection can be viewed from two perspectives: the regulatory impact on disclosure requirements, and own protection through a better assessment of risk undertaken. For both, the research brings evidence for significant improvements.

Supervision

The current supervisory framework encourages collaboration between national authorities and ensures the uniformity by enhancing the powers of the European Supervisory Authority, ESMA.

Industry practices

Reaching both the market and the institutional level, the changes in the regulatory framework will have significant impact on the industry practices. Starting with product requirements, equal
valuation techniques and reduced reliance on CRAs, securitized products will meet the standards of simplicity, transparency and comparability.

Sovereign

Although there is not a definitive solution to the influence of sovereign ratings on new issuance, we cannot ignore the negative impact. For securitizations, the higher the rating, the higher the demand and the lower the cost of borrowing. This aspect however, is valid for all types of financing, therefore new securitization issuances will not be so much influenced by this factor.

Finally, the imperfections of the current financial framework exposed in the last chapter, prove the possibility of significant contributions that securitization can bring to the European financial framework.

6.2 Limitations

Much like for any other research, the existence of a certain degree of background information in relation to the topic is fundamental for the process of data aggregation and interpretation. An important limitation was the short period of time available to understand in more depth various aspects of the securitization process, and also of the functioning of the European financial system.

6.3 Further research

Apart from the obvious monitoring of the implementation process of reforms, I would suggest the following topics for further research:

- Cost of implementation of reforms for different sectors;
- Analysis of the dynamic of issuance following the reforms;
- Cooperation between national Supervisory Authorities;
- The impact of the STC criteria; Follow up on implementation and whether they will ultimately become legally binding;
- Data aggregation methods and availability to public;
- Development of INCRA and its position in the credit ratings sector;
- Analysis of the differences between definitions left at national discretion; Do they affect competitiveness between EU members?
- Analysis of reasons behind the low rate of responses to European proposals from the less developed countries.

Securitization in 2015: Element of default or engine for the European economy?
Because the financial market will always be in continuous evolution, bringing every time more complexity to the framework and generating greater interdependence between variables of influence, the real results of reforms will always be seen over a long-term period.

On that account, I conclude with the famous words of the English economist N W Senior (1836):

"To abstain from the enjoyment which is in our power, or to seek distant rather than immediate results, are among the most painful exertions of the human will".
7 Bibliography


Securitization in 2015: Element of default or engine for the European economy?

59
European Commission. (2014). 2014 SBA Fact Sheet - Germany, United Kingdom, Luxembourg, Romania. European Commission


Securitization in 2015: Element of default or engine for the European economy?


**Electronic sources**

European Commission (2015). Securitisation. -

- Various accesses to http://ec.europa.eu/finance/securities/securitisation/index_en.htm

Price Waterhouse Coopers. (2012). *Professor Ed Altman discusses Sovereign Risk from a Bottom-Up perspective.* -

- Retrieved on 15 July from https://www.youtube.com/watch?v=JrZKEtjDSS

Securitization in 2015: Element of default or engine for the European economy?
## Annex 1 European regulatory framework and changes over time

<table>
<thead>
<tr>
<th>Previous Regulation</th>
<th>Regulation</th>
<th>Date of announcement</th>
<th>Date of full enforcement</th>
<th>Means of enforcement</th>
<th>Supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R)/ (A)/ (S3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Banking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A) Regulation No 648/2012</td>
<td>Regulation No 575/2013  CRR</td>
<td>27 June 2013</td>
<td>1 January 2014 (With special provisions for specific articles enforced in January 2015 and January 2016).</td>
<td>Binding in its entirety and directly applicable in all Member States.</td>
<td>EBA</td>
</tr>
<tr>
<td>(S) Regulation No 575/2013</td>
<td>Regulation (EU) No 625/2014</td>
<td>13 June 2014</td>
<td>3 July 2014</td>
<td>Binding in its entirety and directly applicable in all Member States.</td>
<td></td>
</tr>
<tr>
<td>(A) Regulation No 575/2013</td>
<td>Regulation EU 2015/62 (LCR)</td>
<td>17 January 2015</td>
<td>18 January 2015</td>
<td>Binding in its entirety and directly applicable in all Member States.</td>
<td></td>
</tr>
</tbody>
</table>

Securitization in 2015: Element of default or engine for the European economy?
<table>
<thead>
<tr>
<th>(A) Directive 202/87/EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive 2013/36/EU</td>
</tr>
<tr>
<td>CRD IV</td>
</tr>
<tr>
<td>27 June 2013</td>
</tr>
<tr>
<td>1 January 2014***</td>
</tr>
<tr>
<td>Transposed into member</td>
</tr>
<tr>
<td>states national law.</td>
</tr>
</tbody>
</table>

**Insurance**

<table>
<thead>
<tr>
<th>Solvency I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive 2009/138/EC</td>
</tr>
<tr>
<td>(Solvency II)</td>
</tr>
<tr>
<td>17 December 2009</td>
</tr>
<tr>
<td>6 January 2010</td>
</tr>
<tr>
<td>(With special provisions</td>
</tr>
<tr>
<td>for specific articles</td>
</tr>
<tr>
<td>enforced in November</td>
</tr>
<tr>
<td>2012)</td>
</tr>
<tr>
<td>Transposed into member</td>
</tr>
<tr>
<td>states national law.</td>
</tr>
<tr>
<td>EIOPA and National</td>
</tr>
<tr>
<td>Authorities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(S) Directive 2009/138/EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation (EU) 2015/35</td>
</tr>
<tr>
<td>17 January 2015</td>
</tr>
<tr>
<td>18 January 2015</td>
</tr>
<tr>
<td>Fully applicable by 1</td>
</tr>
<tr>
<td>January 2016</td>
</tr>
<tr>
<td>Binding in its entirety</td>
</tr>
<tr>
<td>and directly applicable</td>
</tr>
<tr>
<td>in all Member States.</td>
</tr>
</tbody>
</table>

**Asset management**

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive No 2011/61/EU</td>
</tr>
<tr>
<td>1 July 2011</td>
</tr>
<tr>
<td>20 July 2011</td>
</tr>
<tr>
<td>Transposed into member states national law.</td>
</tr>
<tr>
<td>CESR</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
</tbody>
</table>

**Credit Rating Agencies**

|--------------------------|-------------------------------|---------------|--------------|---------------------------------------------------------------------|
Securitization in 2015: Element of default or engine for the European economy?

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Prospectus</th>
<th>Date</th>
<th>Date</th>
<th>Member States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive 2003/71/EC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National competent authorities of the Member States of the European Economic Area.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A) Directive 2004/109/EC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regulation (EU) No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22 September 2012</td>
<td>22 September 2012</td>
<td>Binding in its entirety and directly applicable in all</td>
<td></td>
</tr>
</tbody>
</table>

---

Securitization in 2015: Element of default or engine for the European economy?
Securitization in 2015: Element of default or engine for the European economy?

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Date of Application</th>
<th>Date of Completion</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>862/2012</td>
<td></td>
<td></td>
<td>Member States.</td>
</tr>
<tr>
<td>Regulation (EU) No 759/2013</td>
<td>8 August 2013</td>
<td>28 August 2013</td>
<td>Binding in its entirety and directly applicable in all Member States.</td>
</tr>
<tr>
<td>Market Abuse Regulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R) Directives 2003/124/EC; 2003/125/EC; 2004/72/EC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIFID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directive 202/92/EC</td>
<td>MiFID 2</td>
<td>12 June 2014</td>
<td>1 July 2014</td>
</tr>
</tbody>
</table>
Securitization in 2015: Element of default or engine for the European economy?

1R1 = Replace; A = Amend; S = Supplement.

*published in the Official Journal of the European Union

**refers to implementation of Basel III provisions only

***although entered in force 20 days from the publication in the Official Journal of the European Union, the date of full enforcement is considered the date the previous regulation is amended/repealed.
Annex 2 Basel III - External ratings

1. External Ratings-Based Approach - risk weights for short-term ratings

<table>
<thead>
<tr>
<th>External credit assessment</th>
<th>A–1/P–1</th>
<th>A–2/P–2</th>
<th>A–3/P–3</th>
<th>All other ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk weight</td>
<td>15%</td>
<td>50%</td>
<td>100%</td>
<td>1.250%</td>
</tr>
</tbody>
</table>

Source: BCBS, 2014a

2. External Ratings-Based Approach - risk weights for long-term ratings

<table>
<thead>
<tr>
<th>Rating</th>
<th>Senior tranche</th>
<th>Non-senior (thin) tranche</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tranche maturity (M1)</td>
<td>Tranche maturity (M4)</td>
</tr>
<tr>
<td></td>
<td>1 year</td>
<td>5 years</td>
</tr>
<tr>
<td>AAA</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>AA+</td>
<td>15%</td>
<td>30%</td>
</tr>
<tr>
<td>AA</td>
<td>25%</td>
<td>40%</td>
</tr>
<tr>
<td>AA−</td>
<td>30%</td>
<td>45%</td>
</tr>
<tr>
<td>A+</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>A</td>
<td>50%</td>
<td>65%</td>
</tr>
<tr>
<td>A−</td>
<td>60%</td>
<td>70%</td>
</tr>
<tr>
<td>BBB+</td>
<td>75%</td>
<td>90%</td>
</tr>
<tr>
<td>BBB</td>
<td>90%</td>
<td>105%</td>
</tr>
<tr>
<td>BBB−</td>
<td>120%</td>
<td>140%</td>
</tr>
<tr>
<td>BB+</td>
<td>140%</td>
<td>160%</td>
</tr>
<tr>
<td>BB</td>
<td>160%</td>
<td>180%</td>
</tr>
<tr>
<td>BB−</td>
<td>200%</td>
<td>225%</td>
</tr>
<tr>
<td>B+</td>
<td>250%</td>
<td>280%</td>
</tr>
<tr>
<td>B</td>
<td>310%</td>
<td>340%</td>
</tr>
<tr>
<td>B−</td>
<td>380%</td>
<td>420%</td>
</tr>
<tr>
<td>CCC+/CCC/CCC−</td>
<td>460%</td>
<td>505%</td>
</tr>
<tr>
<td>Below CCC−</td>
<td>1,250%</td>
<td>1,250%</td>
</tr>
</tbody>
</table>

Source: BCBS, 2014

Securitization in 2015: Element of default or engine for the European economy?
Annex 3 - INCRA - Forward-Looking Indicators

Source: INCRA, 2014

Securitization in 2015: Element of default or engine for the European economy?
Securitization in 2015: Element of default or engine for the European economy?
Securitization in 2015: Element of default or engine for the European economy?