

Asset Securitization - From (Risky) Loans to Waterfalls

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Agenda

- » Fundamentals and Short History of Asset Securitization
- » A Closer Look at the Players and the Details
- » Securitizations in the Financial Industry and Economy
- » Securitization and the Credit Crisis
- » Regulatory Framework for Securitizations
- » Summary and Further Reading

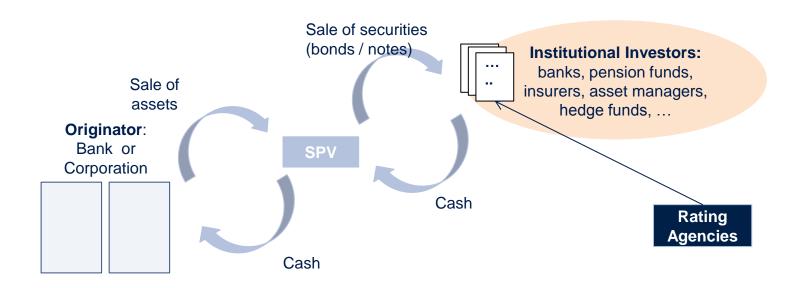
Fundamentals and History of Asset Securitization

Setting the Stage

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Securitization – What Are We Talking About? (1/3)

- » In a nutshell: Securitization¹ means converting assets into tradable securities
- More precisely: Process of pooling assets (e.g. loans, mortgages) into a separate legal entity that then issues a new financial instrument or security for sale to investors
 - Result is called ABS, CDO, MBS...



Securitization – What are we talking about? (2/3)

Originator:

> The one who originates the loans that are pooled as the underlying assets for the issuance of assetbacked securities in the asset securitization transaction.

Assets:

Here mainly (newly originated or existing) loans or mortgages

Special Purpose Vehicle:

- A special purpose vehicle (SPV) is a unique feature of asset securitization. Alternatively, an SPV is also referred to as a special purpose entity (SPE).
- Basically, an SPV is a trust that is set up by the originator for the purpose of purchasing the loans it originates and issuing in the capital market notes or bonds.

Rating agencies:

Rating agencies analyze the quality of the assets as well as the transaction structure and award a rating for all securities issued for refinancing, with the securities being issued in different tranches.

Tranches:

- > "Slicing" the liabilities of the SPV (= securities) into different tranches with different risk / return features (and accordingly different ratings)
- In the simplest form senior tranche, mezzanine tranche and equity tranche

Securitization – What are we talking about? (3/3)

» Asset Backed Security (ABS)

- In General: Debt instrument secured by assets with fixed cash flows
- > Diverse collateral: retail consumer loans, student loans, credit car debt, ...

» Mortgage Backed Security (MBS)

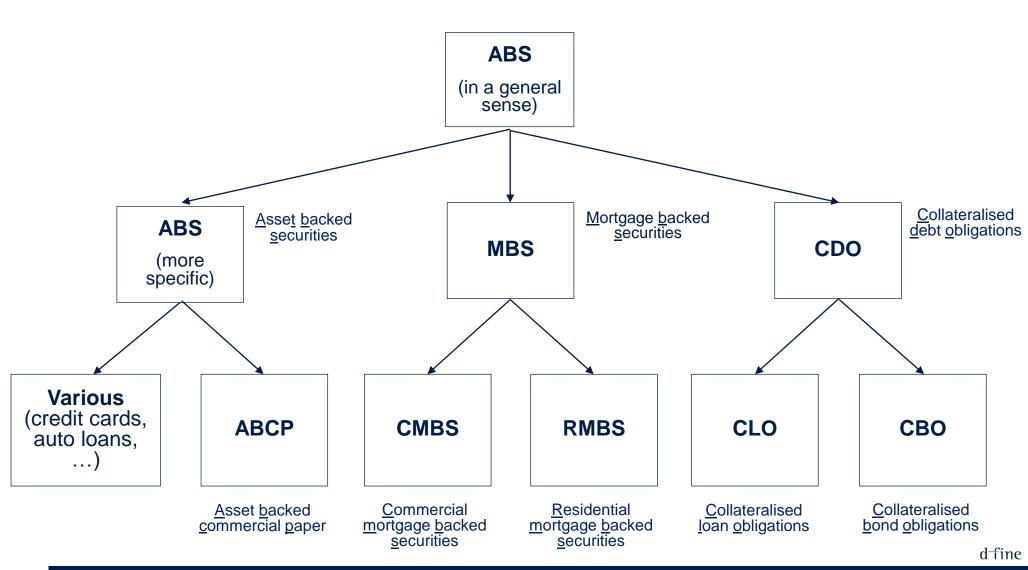
- Securities are backed by mortgages; Market larger in volume than ABS
- CMBS (Commercial Mortgage Backed Security)
- > RMBS (Residential Mortgage Backed Security)

» Collateralized Debt Obligation (CDO)

- "Resecuritized securities"
- CDOs contain different tranches of MBS, sometimes pooled together with other ABS
- CDO squared contained tranches of other CDOs

Securitization is a technique that can take many different shapes.

Securitization - Taxonomy



Asset Securitization has a Long Tradition (Particularly in the USA)

- Asset securitization as we know it today has started in the early 1970s
- » In the beginning, residential mortgages were the only type of securitized assets
- » In 1971 Freddie Mac issued the first conventional loan securitization
- » In 1977 Bank of America issued the first private label residential mortgage pass-through bond.
- » In the mid-1980s the first securitizations of automobile loans and bank credit card receivables were done
- » Commercial banks developed the first asset-backed commercial paper conduits (ABCPs) in the 1980s
- » During the 1980s UK banks began structuring residential mortgage securitizations
- Issuance of first CDO in 1987
- » Commercial mortgages began to be securitized in the 1990s.
- The first securitizations of sub-prime residential mortgages were done in the early 1990s.
- In Germany, it was not before the year 2000 that a significant securitization market began to develop

Securitization Market Is Growing in Ingenuity ...

What? Who?

Auto loans
VW, GM, Porsche, Fiat, BMW, ...

Future export revenues
Brazilian Iron Ore

» Bank corporate loans
National Westminster ("ROSE"), ...

Credit card receivables Citibank, ...

» Life insurance premiums
Swiss Re, ...

» Football season tickets
Real Madrid, Arsenal, ...

» Record royalties
David Bowie, Rod Stewart, James Brown, ...

(Almost) any stream of income cash flows can be used to fund an ABS issue.

Source: Valdez and Molyneux. An Introduction to Global Financial Markets. Palgrave Macmillan.

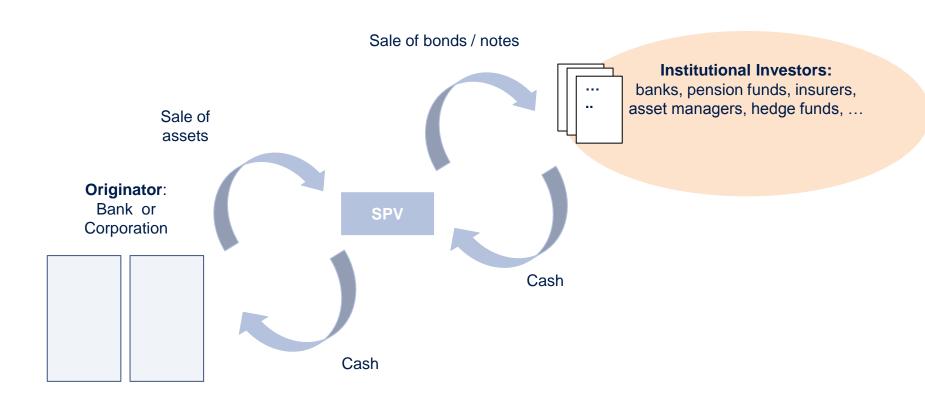
Summary So Far...

- Securitization is a form of structured finance, started in the early 1970s in the US with residential mortgage loans
- Securitization involves the pooling of assets / receivables and the issuance of securities by a special purpose vehicle
- The asset securitization process transforms a pool of assets into one or more securities referred to as asset backed securities
- The originator makes the loans based on its underwriting standards and sells a pool of loans to an SPV
- » The SPV purchases the pool of loans from the proceeds obtained from the sale of the asset backed securities
- The end result of a securitization transaction is that a corporation can obtain proceeds by selling assets and not borrowing funds
- The assets used in a securitization process can be either existing assets / existing receivables or assets / receivables to arise in the future
- Depending on the underlying assets, asset backed securities come in a variety of different names

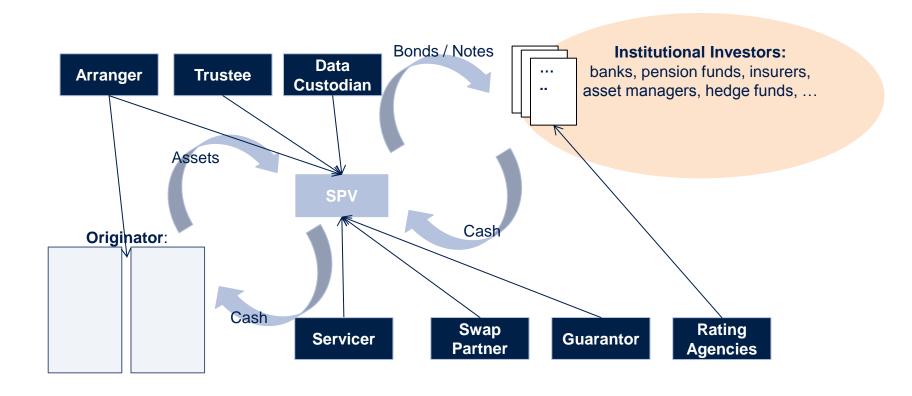
Securitization is a technique to convert illiquid balance sheets assets into tradable securities.

A Closer Look at the Players and the Details

This is not the whole story!



Asset Securitization Involves a Number of Different Players



The reality may still look more complex... (security trustee vs. note trustee, liquidity facility provider, investments banks supporting the issue of notes etc.).

A Short Look At The New Players (1/2)

- The arranger (or underwriter) is normally an investment bank. It plans, organizes and structures the overall transaction in conjunction with the originator. It is involved in the ongoing processing and supervision of the transaction. The main tasks are as follows:
 - Advising on setting up the transaction, e.g. on the optimum selection of assets for the credit pool to be sold
 - Adapting the ABSs to the structure of the assets as well as to the needs of the originator and the investors
 - Coordinating the setting-up and selection of the SPV
 - Liaising with the rating agencies
 - Preparing the documentation with the assistance of lawyers
 - Taking part in placing the ABS securities
- The trustee (an accounting firm or a firm of lawyers, for example) assumes control of the securities and the proper processing of all payment flows in the interest of the investors. It holds the securities in trust for the investors, i.e. in their own name, but on another account.
- The data custodian is needed in order to ensure that the debtor's personal data are not passed on when the assets as sold, thus breaching banking secrecy rules. The data custodian receives the data and may pass it on to third parties only if necessary (for example, if a debtor becomes insolvent).

Source: http://www.true-sale-international.de

A Short Look At The New Players (2/2)

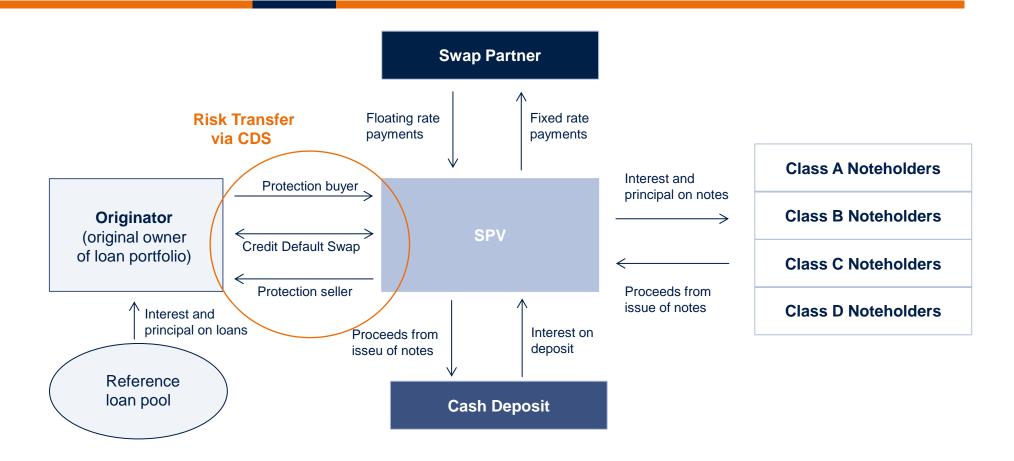
- The servicer generally deals with the ongoing administration of the loans, i.e. credit control, collecting the repayments and interest, collecting arrears, and, in the event of disruptions, realizing the securities. Owing to its proximity to customers and administrative expertise, the selling bank initially retains responsibility for servicing the assets (credit administration), even if, as a consequence of the sale of the assets, it is no longer the legal and/or financial owner of the assets.
- The swap partner / counterparty is needed for hedging away interest rate risk or currency risk associated with the pool of underlying assets. This is done by using a variety of swap transactions.
- » By providing a guarantee (e.g. in form of a letter of credit), a guarantor provides a credit enhancement to the securities. In the special case of US RMBS, there is the unique federal government or GSE credit guarantee.

Source: http://www.true-sale-international.de

Securitization Types

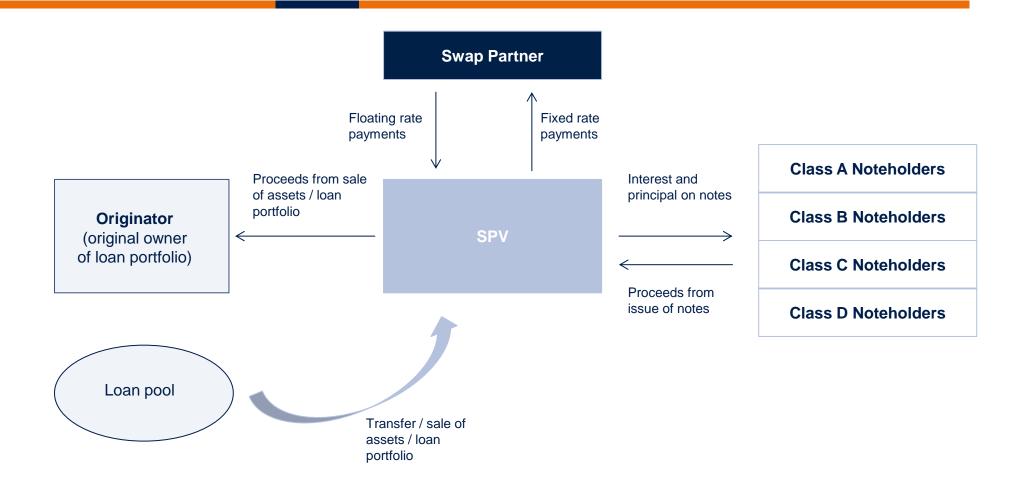
- There are different possible goals the originator of a securitization could aim to achieve:
- I. The generation of new funding / liquidity sources
- II. The transfer of risk
- III. Balance sheet management
- Depending on the goal the originator wants to achieve, two different kind of securitizations are usually applied:
- Synthetic Securitization: only the credit risk is transferred (by way of a credit default swap).
 There is no change in ownership of the individual loans.
- True Sale Securitization: the pool of assets is removed from the balance sheet along with their associated credit risk. There is (usually) a change of ownership of the individual loans (from the originator to the SPV).

Securitization via Synthetic Transaction



In a synthetic transaction, the bank retains the loan portfolio and transfers the associated credit risk.

Securitization via True Sale



In a true sale, an originator "physically" sells a portfolio of loans to an SPV.

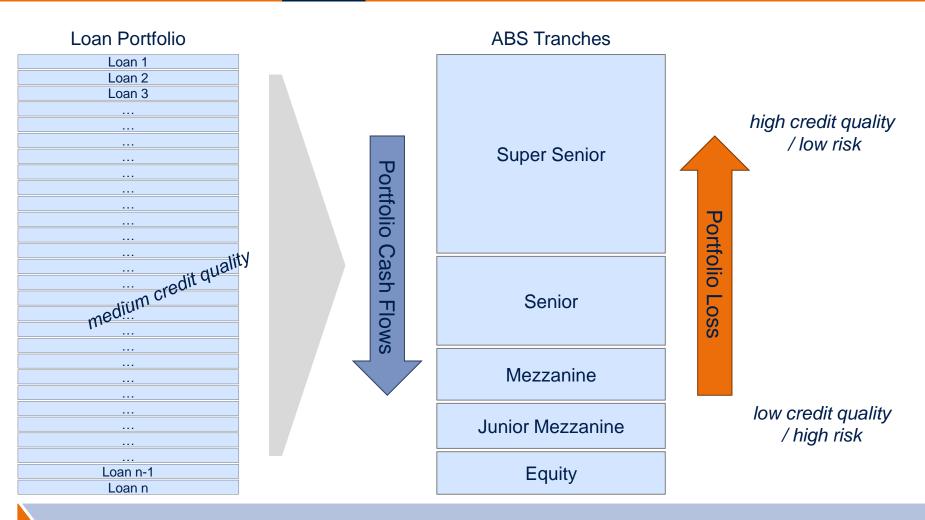
True Sale vs. Synthetic Securitization

Feature	True Sale	Synthetic
Additional credit capacities	✓	✓
Regulatory equity optimization	✓	\checkmark
Refinancing	✓	×
Portfolio transfer	✓	×
Balance sheet reduction	✓	×
Counterparty risk	(*)	✓
SPV necessary	✓	Not necessarily
Cost	High	Average
Complexity	High	Average

An originator seeking risk transfer, liquidity and possibly also an optimization of the balance sheet, will choose a true sale securitization.

Source: http://www.true-sale-international.de

The Securitization Waterfall



Securitization can create securities with widely different risk characteristics from a portfolio of assets.

Credit Enhancement

- Credit enhancements are mechanisms for providing credit support for a securitization transaction with the goal to create some high quality securities from average (or low) quality assets
- The type of asset securitized and type of investor targeted dictates the nature and extent of credit enhancement required in a transaction
- The amount of credit enhancement needed to obtain a specific credit rating is specified by the rating agencies form which a rating is sought and is referred to as the sizing of the transaction
- » Types of credit enhancements:

Structural

» Profit and Loss prioritization ("waterfall")

Third-party-provided

Insurances, guarantees (e.g. by sovereigns)

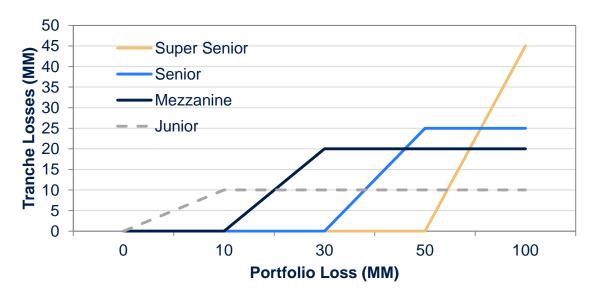
Originator-provided

- Cash collateral account (i.e. cash buffer)
- » Overcollateralization
- Excess spread

Credit enhancements are required to obtain a better credit rating.

Tranche Profit & Loss in a Securitization Depending on Portfolio Performance

» Example structure:



Tranche Nominal (in MM)		
Super Senior	45	
Senior	25	
Mezzanine	20	
Junior	10	
Total	100	

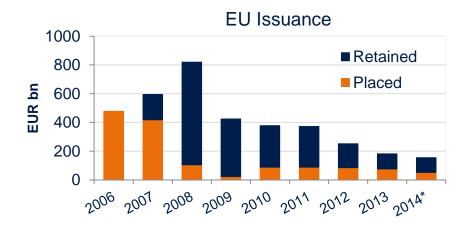
- » Super Senior tranche: "short put option"-like position with strike 50mm
- » Mezzanine tranche: "long put option (strike 30mm) + short put option (strike 10mm)"

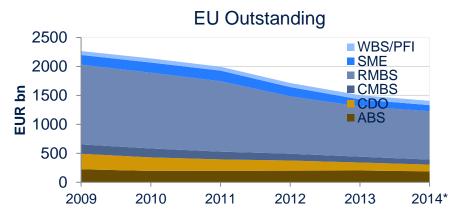
Tranches in an ABS waterfall structure can be viewed as options or option combinations on the portfolio loss.

Securitizations in the Financial Industry and Economy

Securitization in Europe / US – Trends

- » ABS total outstanding amount in Europe: EUR 1,400bn
- » Securitization market in EU continues to be impaired as a result of the financial crisis
- » High retention rate among originating banks
- » ABS total outstanding amount in US: EUR 7,600bn
- » US market reasonably strong, driven predominantly by Agency MBS



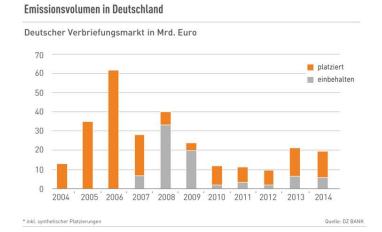


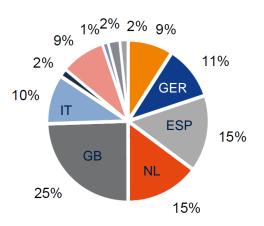
EU Securitization market remains difficult but regulators want to strengthen its role in the financial system.

Source: Association for Financial Markets in Europe (AFME). Securitization Data Report Q3 2014. * Data for 2014 ex Q4

Securitization in Germany

- Despite a good performance during the crisis, the German ABS market has been affected severely
- From 2008 on, very high percentages of the issuance volume had and have to be retained
- In 2014, "auto-ABS" contributed approx.
 88% to the total issuance volume of almost
 20 bn € in Germany
- Sermany was the 4th largest European ABS market with respect to collateral in 2014, after GB, ESP and NL
- » Mainly synthetic transactions in Germany
- » ABS market is growing again in Germany, but still far away from pre-crisis levels





European ABS market is dominated by GB; German market has a strong focus on auto ABS.

Source: ABS Watcher 01/2015, DZ BANK

Illustration of Balance Sheet Management via Securitization

Balance sheet of a bank Debt (e.g. deposits) Assets (e.g. loans) Equity true-sale Cash transaction Market-based SPV Loan Portfolio **Notes** financing

Banks use securitization to actively manage their balance sheet (risk, exposure, ...).

Balance Sheet Management via Securitization – Very Simple Example

Sale of 20 loans by securitization and corresponding reduction of liabilities with the achieved proceeds

Before ABS transaction:
Equity ratio: 20%
Equity-debt ratio: 1:4

After ABS transaction:
Equity ratio: 25%
Equity-debt ratio: 1:3

Assets	Liabilities
Cash (10)	Deposits (40)
Loans (50)	Deposits (40)
	All other liabilities
All other assets (40)	(40)
7 (11 0 (110) (130 (13 (140)	Equity (20)

Assets	Liabilities
Cash (10)	
Loans (30)	Deposits (40)
All other assets (40)	All other liabilities (20)
	Equity (20)

Securitizations can be a useful tool in managing the balance sheet, e.g. for achieving a better equity ratio.

Benefits of Securitization for Banks and the Economy

- » Manage risk profile: diversification of risk / limitation of exposure to certain
 - Borrowers

Loan types

Geographies

- Risk levels
- "Regulatory arbitrage" move loans off the book to reduce regulatory capital
- » Realize economies of scale
 - > leverage origination platforms, branches, servicing operations
 - Increase return on equity (ROE)
- » Risk sharing in the economy
 - Participation of non-bank investors allows for risk sharing in the financial system
 - More diversified bank liability structures reduce the dependency of banks' lending decisions on business cycle conditions
 - "High quality" ABS can serve as complement to government debt
- Market participation in bank supervision: third party discipline, market pricing of assets

Securitization can lower cost and improve availability of credit while reducing volatility of the financial system. Securitization is a feature of any advanced financial system.

Risk and Side Effects of Securitization

Two business models?

originate-to-hold (without securitization)

Ienders make loans with the intention of holding them through maturity

originate-to-distribute (with securitization)

- lenders make loans with the intention of selling them to other financial institutions or investors
- » Securitization comes with "agency problem"
 - Banks care less about credit quality, tendency for credit bubble
 - Important factor for financial crisis 2007/08
- » Financial flows are moved outside the regulated financial system ("shadow banking")
 - Non-bank-financial firms that typically invest in securitizations are not protected by public-sector liquidity backstops like central bank financing
 - No deposit insurance for investors
 - Potential increase of systemic risk
- » ABS structures are complex and harder to understand and price than individual loans
 - Transparency decreases

Securitization needs to be properly regulated.

Securitization and the Credit Crisis

Securitization Of Subprime Mortgages And The Credit Crisis

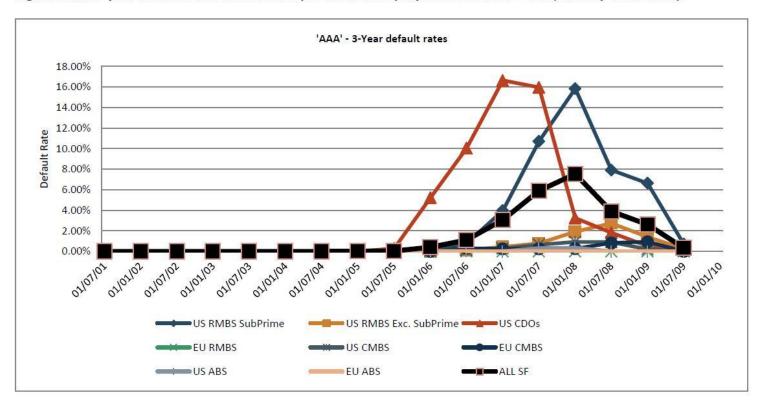
- Subprime refers to loans to higher risk borrowers those who are not prime borrowers
- The growth of the US subprime mortgage business (and related securitizations) deserves special attention
- » Mortgage lending to subprime lenders grew from
 - > ~ \$200bn in mid-2003
 - > \$500bn in mid-2004
 - > ~ \$600bn in mid 2005 subprime mortgages accounted for about 20% of all new US residential mortgages
- » Subprime mortgages were attractive for banks as they offered higher interest rates than prime mortgages – typically 2% more than fixed rate prime lending
- The use of subprime loans in the underlying collateral allowed MBS and CDO packagers to enhance their profit margins while offering competitive returns on their securitizations
- » By 2006, around 81% of subprime mortgages had been securitized!
- When subprime mortgage borrowers began to default due (mainly) to a decline in property prices, the securitization business of such loans collapsed and fuelled the credit crisis

Securitization of subprime mortgages was one of the reasons for the credit crisis.

Source: Valdez and Molyneux. An Introduction to Global Financial Markets. Palgrave Macmillan.

Performance Of Securitizations – Global Perspective

Figure 3 three-year default rates at AAA level per asset class (July 2001-Jan 2010 - S&P, Moody's and Fitch)



Source: EBA report on qualifiying securitization (7/2015)

Non-performing securitizations between 2006 and 2009 occurred mainly in the USA.

Lessons from the Credit Crisis

- One of the most important lessons of the 2007-2009 crisis is that defaults and losses associated with securitization positions have varied substantially across different types of securitizations and regions
- The poor performance of certain products, irrespective of the pre-crisis rating level, was associated with recurring factors, including:
 - i. misalignment of interest between originators and investors resulting in loose underwriting standards on the underlying exposures;
 - ii. Inherent conflict of interest in the work of rating agencies
 Rating agencies are paid by the banks to rate the securities, and on the other hand, they are supposed to provide investors with accurate information on risk.
 - iii. excessive leverage;
 - iv. excessive term transformation;
 - complex structures.
 Complex transactions have been assessed by external rating agencies using erroneous modelling assumptions and have been placed with investors without adequate transparency standards

A new regulatory framework for securitizations is inevitable.

Source: EBA Report on Qualifying Securitizations

Regulatory Framework for Securitizations

Selected Regulatory Initiatives/Requirements

Regulatory Initiative	Requirements
Capital Requirements (BCBS)	 Hold capital against investments in securitizations Capital relief for securitized assets sold to third-party investors Possibility that capital requirements will be revised
Solvency II	 » Hold capital against investments in securitizations » Possibility that capital requirements will be revised
Liquidity Requirements (BCBS; CRR)	 » Question of how far ABS may qualify as HQLA for LCR » Discretion for national authorities to include RMBS in Level 2B HQLA with haircut
Retention Principles (G20; CRD/CRR)	» 5% retention requirement for banks and investors

A variety of regulatory initiatives (both established or subject to negotiation) affect incentives of regulated firms to issue or invest in ABS.

The Three Pillars of Basel III for Financial Regulation



Pillar 1: Capital adequacy

Pillar 2: Supervisory review & risk management

Pillar 3: Market discipline & disclosure

CRR* / CRD IV**: Implementation of the Third Basel Accord in EU legislation

- Banks must hold a minimum of common equity as a percentage of their riskweighted assets (RWA) at all times
- There are special rules for calculating the RWA for securitization exposures

- Banks must provide appropriate methods for risk management
- Banks must have a strategy for maintaining the required common equity level
- Compliance with the requirements is reviewed by supervisory authorities

- Banks are required to disclose information on financial reports, risk management strategies and risk control
- There are additional disclosure requirements for securitizations

^{*}Capital Requirement Regulation; ** Capital Requirements Directive

Pillar 1: Capital Requirements for Securitizations

- » Banks must hold equity capital for their risk exposures. This includes securitization exposures.
- Capital requirements for securitizations have attracted high attention after the financial crisis.
- Capital charges are raised as a percentage of the risk-weighted assets (RWA), which in turn is the product of the applicable risk weight (RW) and the exposure amount.

$RWA = RW \cdot Exposure Amount$

- The RW can take values between 7% and 1250%.
- » The methods for calculating the appropriate *RW* are structured in an approach hierarchy
- There are rating-based approaches and formula-based approaches. In the approach hierarchy of the CRR, external ratings from rating agencies such as Moody's, Standard & Poor's or Fitch had been given preference.
- The approach hierarchy has been altered in the new Basel 3.5 framework for securitizations, which will become legally active in 2018. The formula-based approach will then be preferred over the rating-based approach.

Under Basel 3.5, there will be a new hierarchy for calculating the risk weight of securitizations.

Pillar 1: Capital Requirements for Securitizations

Rating-based approach

- The applicable risk weight is determined by mapping tables.
- A risk weight between 7% and 1250% is assigned to each scale value (1-12).

	S&P	Moody's	Fitch	DBRS
1	AAA	Aaa	AAA	AAA
2	AA	Aa	AA A+ A- BBB+ BBB BBB- BBH BB	AA AH A AL BBBH BBB BBBL BBH BB
3	A+	A1		
4	Α	A2 A3 Baa1 Baa2 Baa3 Ba1 Ba2		
5	A- BBB+			
6				
7	BBB			
8	BBB-			
9	BB+			
10	ВВ			
11	BB-	Ba3	BB-	BBL
12	Below BB-	Below Ba3	Below BB-	Below BBL

Formula-based approach

- The formula-based approach takes into account characteristics of both the securitization tranche and the underlying collateral pool (portfolio).
- » Characteristics of the tranche:
 - Seniority of the tranche
 - » Attachment / detachment point
 - » [Maturity of the tranche]*
- » Characteristics of the portfolio:
 - » Risk weight of the unsecuritized portfolio
 - » Loss Given Default (LGD) of the portfolio
 - » Effective number of portfolio positions
 - » Type of credits in the portfolio

Example of a mapping table. Source: EBA

Pillar 2: Supervisory Review

- Supervisory authorities oversee the activities of credit institutes with regard to adequacy in internal management and compliance with regulation, such as capital requirements. In case of compliance violation, banking authorities have the right to intervene.
- » Banks are to be encouraged to continuously improve their internal procedures for assessing their institute-specific risk situation and the adequacy of their capital.
- The European Banking Authority (EBA) harmonizes supervisory practices and develops Binding Technical Standards (BTS) and Guidelines for a European Single Rulebook.
- In Germany, banks generally fall under the supervision of the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht - BaFin). Only significant banks fall under the supervision of the EBA.
- » Basis for financial supervision are Regulations and Guidelines such as the CRR/CRD IV and the Mindestanforderungen an das Risikomanagement (MaRisk). Banking authorities review financial statements and audit reports.
- In 2018 the new Guidelines for the Supervisory Review and Evaluation Process (SREP) will come into effect. According to the new SREP Guideline, the business strategy (for securitizations) will also be taken into account.

The Single Rulebook aims to provide a single set of harmonized prudential rules which institutions throughout the EU must respect.

Pillar 2: Supervisory Review

Supervisory Review and Evaluation Process (SREP)

Monitoring of key indicators

Indicator 1:

Business model

analysis

Indicator 2:
Assessment of
internal governance

Indicator 3: Assessment of risk to capital

Indicator 4:
Assessment of risk
to liquidity&funding

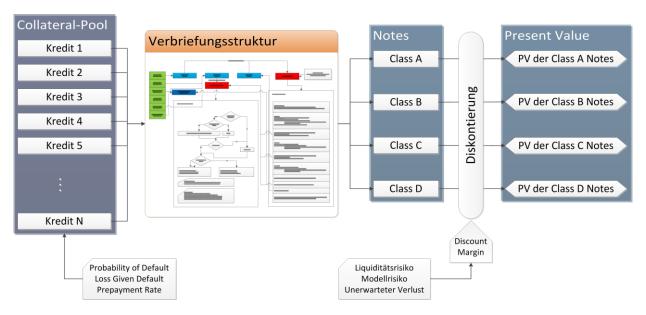
Supervisory measures for 1. capital, 2. liquidity and 3. other measures

Superordinate measures for Early Intervention

- The supervisory review is performed along four key indicators.
- » Supervisory authorities have measures for (early) intervention.
- In case of a risky business model with respect to securitizations, higher capital charges or further stress tests can be ordered.

Pillar 3: Market Disclosure

- In general, credit institutes are obliged to disclose information on financial reporting, risk strategy and risk management.
- » For securitizations in particular, an investor or originator must be able to demonstrate
 - sufficient knowledge of the underlying portfolio
 - an ample understanding of the complex payment structure



A failure to do so may result in the application of higher capital charges for the securitization exposure in question.

Present Discussion on Regulatory Measures

- The securitization market has significantly declined after the financial crisis.
- » Current regulatory developments discourage a more active securitization market.
- » Some market participants demonstrate efforts towards a revival of the securitization market.
 - Only particular securitizations had high default rates during the financial crisis.
 (US RMBS und US CDOs)
 - Securitizations offer tailored investment opportunities
 - Securitizations are suitable instruments for credit risk allocation
 - Securitizations can be successfully integrated into a diverse funding strategy
 - Regulatory requirements should treat securitizations and alternative financial instruments of a comparable risk structure equally
- » Separate treatment of qualifying securitizations.
 - The Basel Committee on Baning Supervision (BCBS) has proposed 14 criteria for simple, transparent and comparable (STC) securitizations for which a preferred treatment should apply
 - The goal is to lower capital requirements for these STC securitizations
 - > The topic is still under discussion
 - Legal questions, in particular with respect to liability, remain unclear

Potential Impediments to a Better Functioning Securitization Market in EU

Issuers



- Uncertainty about future regulatory requirements
- » Systems
- » Availability of ancillary facilities
- » Reliance on rating agencies, sovereign rating caps

Investors



- » Capital & liquidity requirements
- » Uncertainty about future regulatory requirements
- » Behavioural constraints
- » High hurdles for risk assessment (data requirements, lack of standardization)

Market liquidity



- » Buy-and-hold investors
- » Market not "deep" enough

Economics of securitization



» Required yield levels vs. transaction costs / regulatory requirements

There are numerous impediments that have prevented the market from recovering so far.

Desirable Features of Securitization Markets

- Credibility and transparency
 - Align interest between issuer and investors
 - Promote ABS features that improve performance predictability in different economic environments
- Resilience to changes in economic conditions
 - Diversified investor base
 - Investors are not excessively leveraged or dependent on short-term funding
- Involvement of authorities / regulators aim at promoting these characteristics

US market as a role model?

- Deep and liquid market
- Agency MBS market has specified standards (e.g. loan size, loan-tovalue ratio,...)
- Government sponsored enterprises (GSEs) provide guarantees

Securitization markets should be simple, transparent and robust. They may require a significant amount of public sponsoring.

Options for Authorities to Move Towards a Better Functioning Securitization Market

- » Develop high-level principles for 'qualifying securitizations'
 - > ABS that meet these criteria are "simple, structurally robust and transparent"
 - Could benefit from better regulatory capital treatment
 - Could benefit from improved secondary market liquidity
- » Standardization of information disclosure across EU
 - loan level transparency requirements already implemented
 - Possibly simplify and standardize prospectuses and investor reports
 - Harmonized credit registers
- » Design of ancillary facilities
 - Credit quality requirements for SPV counterparties (e.g. Swaps)
 - Separation of account management / servicing for SPV from issuer

Policy makers and regulators are considering a number of measures to transforming securitization markets in the EU.

Principles of a 'Qualifying Securitization' Proposed by ECB/BOE

- » Underlying assets:
 - > credit claims or receivables with defined terms
 - common market interest rates
- » Availability/verifiability of historic loan loss performance
- » Full recourse to ultimate obligors (no re-securitizations)
- » True-Sale transactions
- » Clearly defined structure:
 - Payments
 - Priorities
 - Rights
- » Transparency:
 - Initial data
 - Ongoing data and information
- Two available ratings by external parties (on ongoing basis)

A key challenge is to define 'simple and transparent' securitization structures.

What's Next?

Headwinds		Tailwinds
 Restrictive regulatory requirements Uncertainty about future regulatory requirements 		» Intention of regulators and standard- setters to strengthen role of securitization
» Liquidity» Economics in low-rate environment		» Trend to standardisation (qualifying ABS)
» Post-crisis stigma		» Initiatives for increased transparency, credibility and resilience
» ECB ABS PP (Crowding out)		» ECB ABS PP (increased demand)

The market for securitization could make a comeback but still faces considerable obstacles.

Summary and Further Reading

Summary

- » Asset securitization is a well-established technique to transform illiquid assets into tradable securities
- Securitization involves the pooling of assets / receivables and the issuance of securities by a special purpose vehicle
- One distinguishes different kinds of asset backed securities (ABS, MBS, CDO and subcategories), depending on the underlying, and different kinds of transactions (true sale and synthetic transactions)
- Securitization can lower cost of funding and improve availability of credit, making the financial markets more efficient. Securitization is a feature of any advanced financial system.
- Securitization broadens the variety of investment products
- » Securitization of subprime mortgages was one of the reasons for the credit crisis
- The global securitization market is dominated by the US market, the German ABS market is much smaller in size and focusses mainly on automotive ABS
- » A variety of regulatory initiatives around ABS / securitizations in general are currently being established or discussed
- ECB, Bank Of England and others are working on revitalizing the (European) ABS / securitization market (e.g. via ABS PP)

References & Further Reading (1/2)

Selected textbooks:

- » Fabozzi, Frank J. and Kothari, Vinod (2008). Introduction to Securitization. John Wiley & Sons, Inc.
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- Valdez, Stephen and Molyneux, Philip (2010). An Introduction to Global Financial Markets. Palgrave Macmillan
- Dermine, Jean (2014): Bank Valuation and Value Based Management: Deposit and Loan Pricing, Performance Evaluation, and Risk (2nd edition). McGraw-Hill Professional

Information on the web:

- » True Sale International http://www.true-sale-international.de/
- European Central Bank & Bank of England (2014): The case for a better functioning securitization market in the European Union A Discussion Paper.
 https://www.ecb.europa.eu/pub/pdf/other/ecbboe_case_better_functioning_securitization_marketen.pdf

References & Further Reading (2/2)

- » European Central Bank & Bank of England (2014): The impaired EU securitization Market: Causes, Roadblocks and how to deal with them. https://www.ecb.europa.eu/pub/pdf/other/ecb-boe_impaired_eu_securitization_marketen.pdf
- » ECB's announcement of implementation of the asset-backed securities purchase programme (ABSPP) (2014). https://www.ecb.europa.eu/ecb/legal/pdf/en_ecb_2014_45_f_sign.pdf
- » Association for Financial Markets in Europe (AFME): securitization Data Report Q3:2014. http://www.afme.eu/WorkArea//DownloadAsset.aspx?id=12231
- » EBA report on qualifying securitization (07/2015) https://www.eba.europa.eu/documents/10180/950548/EBA+report+on+qualifying+securitization.pdf
- » IMF Working Paper: Securitization: Lessons Learned and the Road Ahead https://www.imf.org/external/pubs/cat/longres.aspx?sk=41153.0
- » Basel Committee on Banking Supervision. Basel III: A global regulatory framework for more resilient banks and banking systems.
 http://www.bis.org/publ/bcbs189.pdf
- » Basel Committee on Banking Supervision. Revisions to the securitization framework. http://www.bis.org/bcbs/publ/d303.pdf
- Basel Committee on Banking Supervision. Board of the International Organization of Securities Commissions. Criteria for identifying simple, transparent and comparable securitizations. http://www.bis.org/bcbs/publ/d332.pdf

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