Estimating the SME Financing Gap in Europe

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Motivation

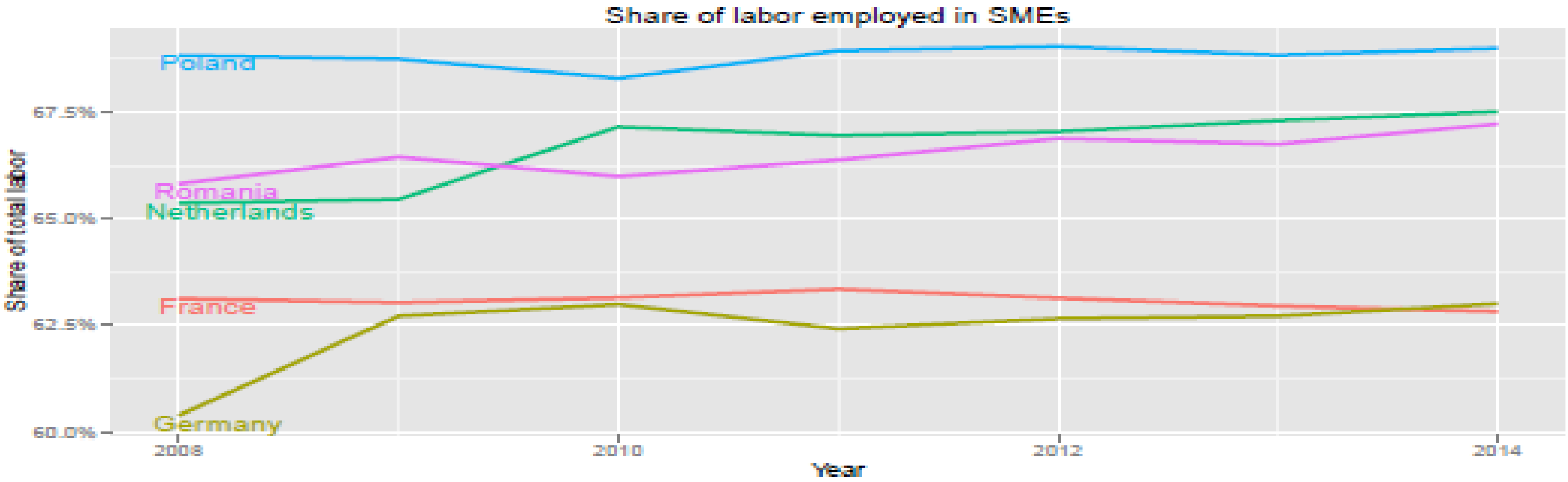
- Large literature on alternative sources of finance to bridge the financing gap for SMEs.
- Few empirical studies on size of debt and equity financing gap in Europe
- Policymakers have suggested alternatives to loan finance for SMEs and entrepreneurs.
  - Examples: COSME, Horizon 2020, ESIF and EsSI aim to increase lending and risk capital for SMEs.
  - EFSI support risk capital for SMEs and mid-size firms.
  - SMEs may receive favorable EIB loans via a selected commerical bank or other intermediaries.
- Two challenges to this line of reasoning:
- 1. Skepticism that there are no significant benefits associated with these policy initiatives.
- 2. New pattern of alternative online funding is likely to make it easier for SMEs to secure credit without government support, including P2B lending and marketplace securitiztion.

Outline

- I. **Debt and Equity Financing Gap for SMEs**
- II. Bridging the Financing Gap
  - 1. Marketplace Lending
  - 2. Marketplace Securitization
- III. Innovation in Marketplace Securitization

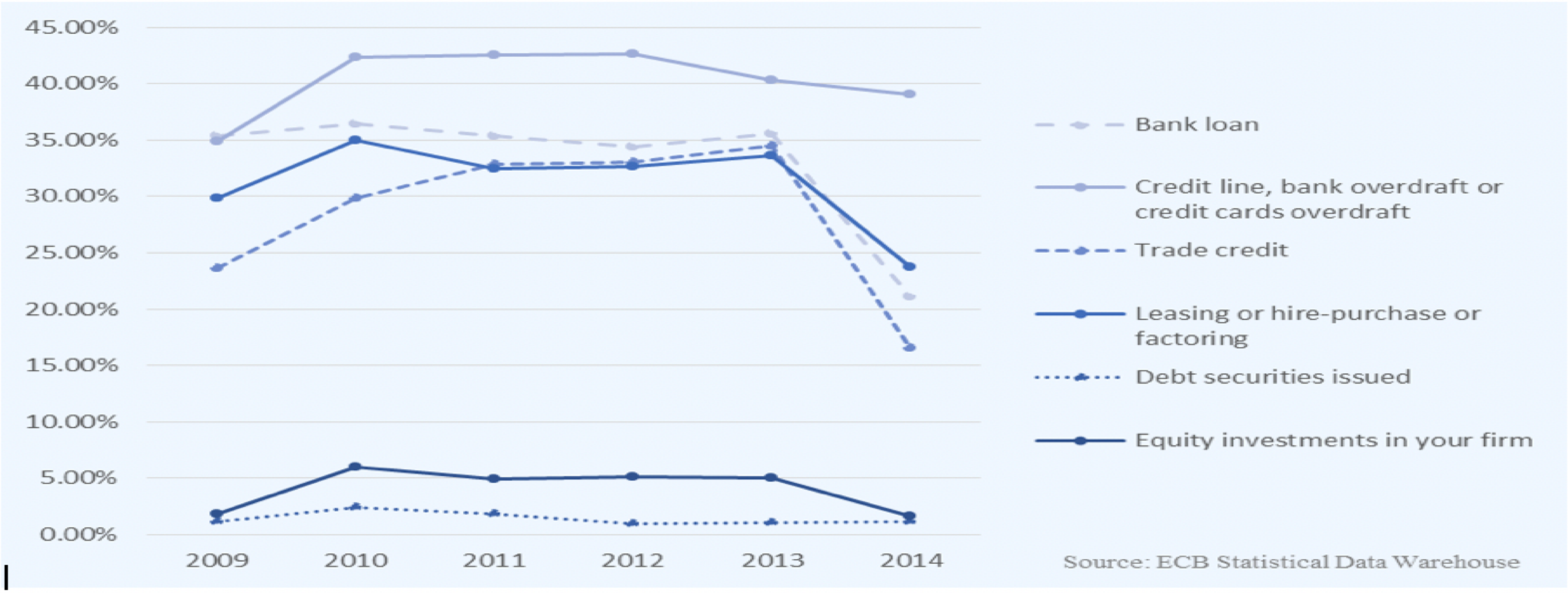
During the crisis SME sector employment was more resilient

Data shows that during the crises SME sector employment is more resilient



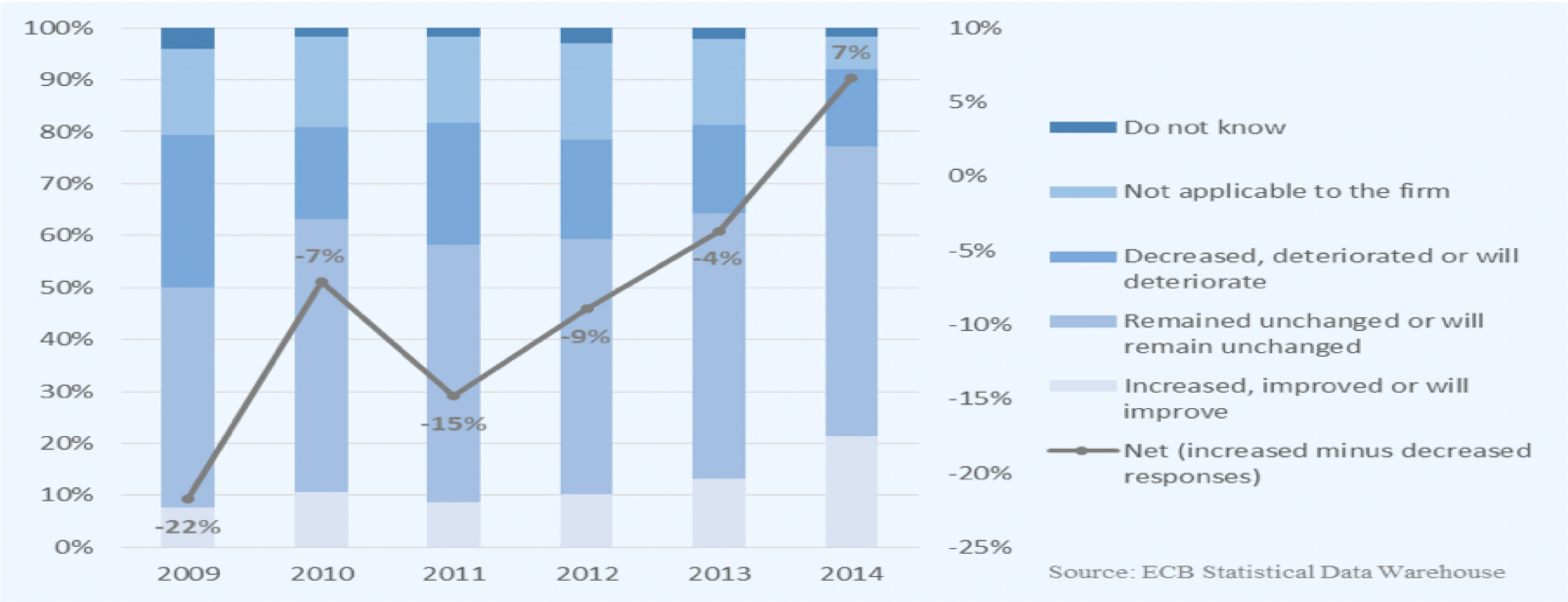
Sources of External Financing for SMEs

Figure 3.1 – Sources of external financing of euro area SMEs



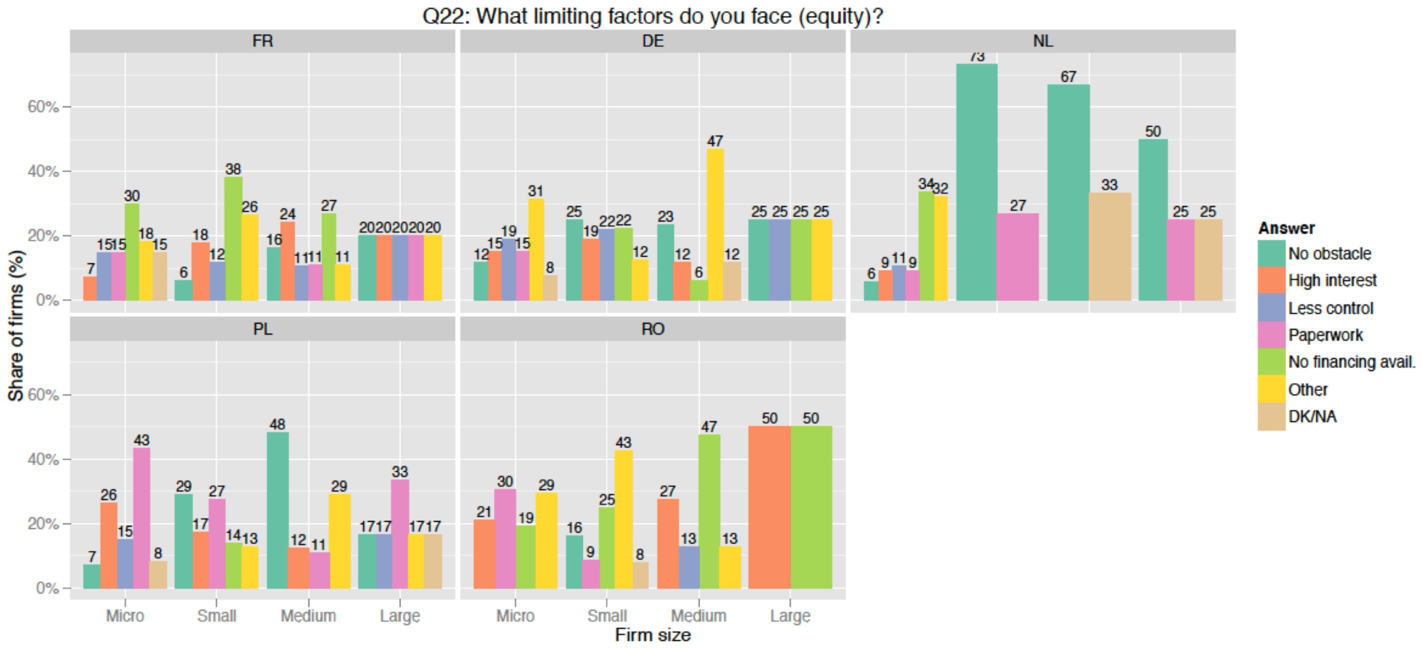
Change in Availability of Bank Loans for SMEs

Figure 3.2 Change in the availability of bank loans for euro area SMEs



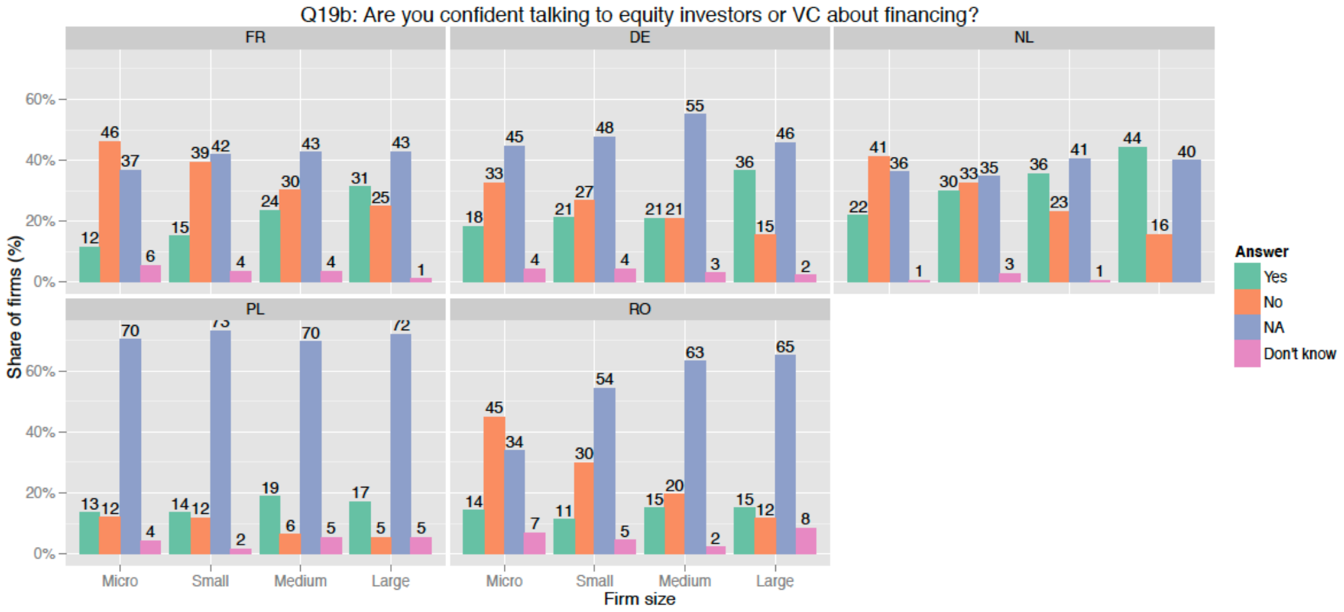
SME Views about Equity Financing

Most of SMEs think that there are actually no equity financing available



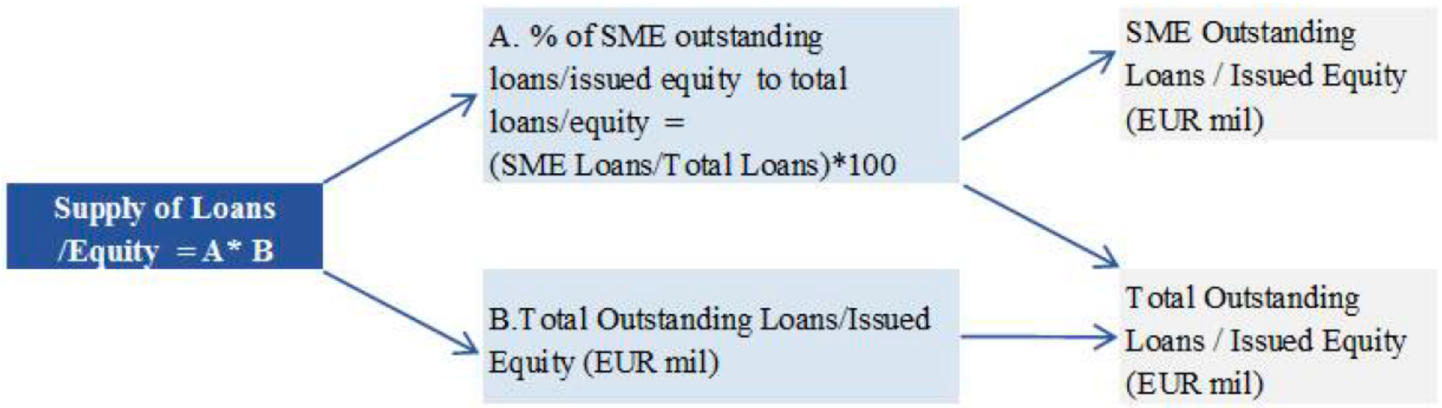
Little SME Contact with VCs

In all Research Countries, the largest shares of SMEs do not talk at all with VCs



Supply of Loans and Equity

We use data on outstanding loans and issued equity to estimate the SME financing supply



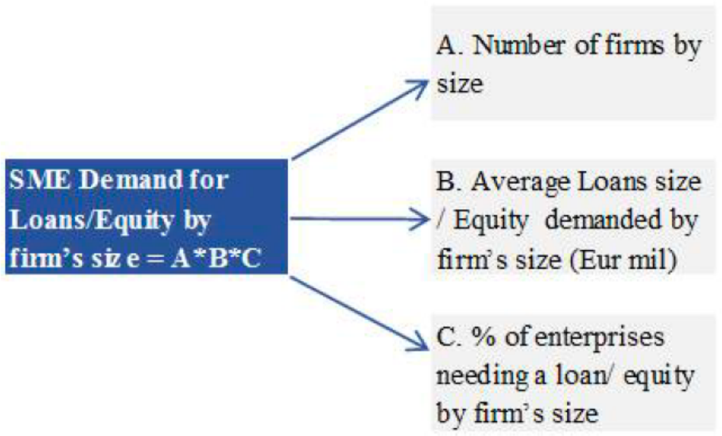
Methods to Estimate Demand

We use multiple datasets and different methods to estimate the SME financing demand

Loan Demand:
Method 1 obtained loans.
Method 2 obtained and desired loans.
Method 3 obtained and rejected loans.

Equity Demand:
Method 1 EVCA data
Method 2 proxy of loan demand

Sources:
A - European Commission
B,C - ECB SAFE Survey (2013)



Financing Supply in France

In 2013, the total SME financing supply in France was 10.31% of GDP (loan 10.28% and equity 0.03%)

SME Loan Supply	Source #1 *ECB data*	Source #2 *IMF data*
A. SME loan supply		
SME Loan Supply (€ mil)	217,257	
SME Loan Supply as % of GDP	10.28%	
B. Total outstanding loans		
Total outstanding loans (€ mil)	812,854	837,341
Total outstanding loans as % of GDP	38.46%	39.62%
C. % of SME outstanding loans to total outstanding loans	26.73%	25.95%
SME Equity Supply	*EVCA data*	
A. SME equity supply		
SME Equity Supply (€ mil)	680	
SME Equity Supply as % of GDP	0.03%	
B. Total venture capital issued		
Total venture capital issued (€ mil)	8,079	
Total venture capital issued as % of GDP	0.38%	
C. % of SME issued equity to venture funds	8.41%	
Total SME Financing Supply		
Total SME fin. Supply		
Total SME fin. Supply (€ mil)	217,937	
Total SME fin. Supply as % of GDP	10.31%	
GDP (in € mil)	2,113,687	

Loan Demand in France

In 2013, the SME loan demand in France was in the range of 13.65% to 15.44% of GDP

		Method #1	Method #2				Excess Demand #1	Method #3			Excess Demand #2
SME Loan Demand											
A. % of SME needing a loan											
	Micro	68.21%				68.21%				68.21%	
	Small	71.41%				71.41%				71.41%	
	Medium	76.62%				76.62%				76.62%	
		Applied and Obtained a Loan	*Applied and Obtained a Loan* 100% of a loan	more than 75% (12% excess demand)	up to 75% (50% excess demand)			*Applied and Obtained (with excess demand)*	*Applied and Got Rejected for a Loan*		
Weights within groups for Method#1, Method#2	Micro		81.39%	8.88%	9.73%			69.66%	30.34%		
	Small		91.01%	3.96%	5.03%			78.46%	21.54%		
	Medium		90.73%	7.45%	1.82%			88.90%	11.10%		
B. Average loan demanded (€ mil)						*Weighted average loan demanded*				*Weighted average loan demanded*	
	Micro	0.15	0.16	0.10	0.22	0.16		0.16	0.19	0.17	
	Small	0.32	0.32	0.56	0.19	0.33		0.33	0.40	0.34	
	Medium	0.58	0.59	2.10	0.32	0.69		0.69	0.88	0.71	
C. Number of SMEs											
	Micro	2,439,919				2,439,919				2,439,919	
	Small	136,364				136,364				136,364	
	Medium	21,740				21,740				21,740	
D. SME Loan Demand=A*B*C (€ mil)											
	Micro	247,545				264,948	Diff. between Method #1 and Method #2			281,061	Diff. between Method #1 and Method #3
	Small	31,265				31,806				33,403	
	Medium	9,676				11,544				11,887	
Total SME loan demand (€ mil)		**288,486**				**308,298**	**(19,811)**			**326,350**	**(37,864)**
SME loan demand as % of GDP		**13.65%**				**14.59%**	**0.94%**			**15.44%**	**1.79%**

Total SME Financing Gap in France

In 2013, the total SME financing gap in France was in the range of 5.60% to 8.22% of GDP

	Loans			Equity		Total		
SME Loan Supply								
SME Loan Supply (€ mil)		217,257					217,937	
SME Loan Supply as % of GDP		10.28%					10.31%	
SME Equity Supply								
SME Equity Supply (€ mil)				680				
SME Equity Supply as % of GDP				0.03%				
	Method#1	*Method#2*	*Method#3*			*Method #1*	*Method#2*	*Method#3*
SME Loan Demand						** Equity Demand using EVCA data*		
SME Loan Demand (€ mil)	288,486	308,298	326,350			353,894	373,705	391,758
SME Loan Demand as % of GDP	13.65%	14.59%	15.44%			16.74%	17.68%	18.53%
SME Equity Demand				*EVCA data*	*ECB data*	** Equity Demand using ECB data*		
SME Equity Demand (€ mil)				65,408	47,751	336,237	356,049	374,102
SME Equity Demand as % of GDP				3.09%	2.26%	15.91%	16.84%	17.70%
		Loan Gap		*Equity Gap*			*Total Fin Gap*	
	Method#1	*Method#2*	*Method#3*			*Method #1*	*Method#2*	*Method#3*
SME Loan Gap						** Equity Demand sing EVCA data*		
Total SME fin. Gap (€ mil)	**71,229**	**91,041**	**109,093**			**135,957**	**155,769**	**173,821**
SME fin. Gap as % of GDP	**3.37%**	**4.31%**	**5.16%**			**6.43%**	**7.37%**	**8.22%**
SME Equity Gap				*EVCA data*	*ECB data*	** Equity Demand using ECB data*		
Total SME fin. Gap (€ mil)				**64,728**	**47,072**	**118,301**	**138,112**	**156,165**
SME fin. Gap as % of GDP				**3.06%**	**2.23%**	**5.60%**	**6.53%**	**7.39%**
GDP (€ mil)		2,113,687		2,113,687			2,113,687	

Debt and Equity Financing Gap: EU v. US

Table 1.1 –Spread of the Financing Gap (as % of GDP) in 2013

	France	Germany	Netherlands	Poland	Romania	US
Loan Gap	3.37% to 5.16%	2.70% to 6.04%	6.01% to 16.34%	5.01% to 14.73%	1.35% to 4.02%	1.12% to 2.25%
Equity Gap	3.06% to 5.09%	2.07% to 3.18%	0.70% to 3.95%	0.44% to 3.49%	4.83% to 13.05%	0.96% to 1.52%
Financing Gap	6.43% to 10.25%	4.77% to 9.22%	6.71% to 20.30%	5.45% to 18.22%	6.18% to 17.07%	2.30% to 3.72%

Quantifying the Finance Gap

- Main findings on loan gap:
  - The US loan gap ranges from 1.12% to 2.25% of GDP.
  - The loan gap of the EU research countries (Germany, France, Netherlands, Poland and Romania) is at least twice as large as the US.
  - Regardless of the quality of institutions and financial development, firms in the EU countries suffer from the undersupply of loans.
- Main findings on equity gap:
  - Equity gap in the US ranges from 0.96% to 1.52% of GDP.
  - The equity gap in the EU countries is on average three times as large as in the US.

Outline

- I. Debt and Equity Financing Gap for SMEs
- II. **Bridging the Financing Gap**
  - 1**. Marketplace Lending**
  - 2. Marketplace Securitization
- III. Innovation in Marketplace Securitization

What is marketplace lending?

- Marketplace lending is a type of market that connects supply to demand of money through the internet (a loan between two peers)
- Loan is facilitated by platform opertor who manages the credit assessment process, establishment of loan contracts, facilitation of payments between borrower and lender, and enforcement/collection processes and related customer services.
- Distinct from traditional banks, which receive deposits and then enter separate loan agreements (on behalf of the bank and not the deposit holder).
- Marketplace lenders originally focused on unsecured consumer lending market but have increaingly broadened their offering to small business loans, secured consumer loans (ie auto finance) and other nich offerings.

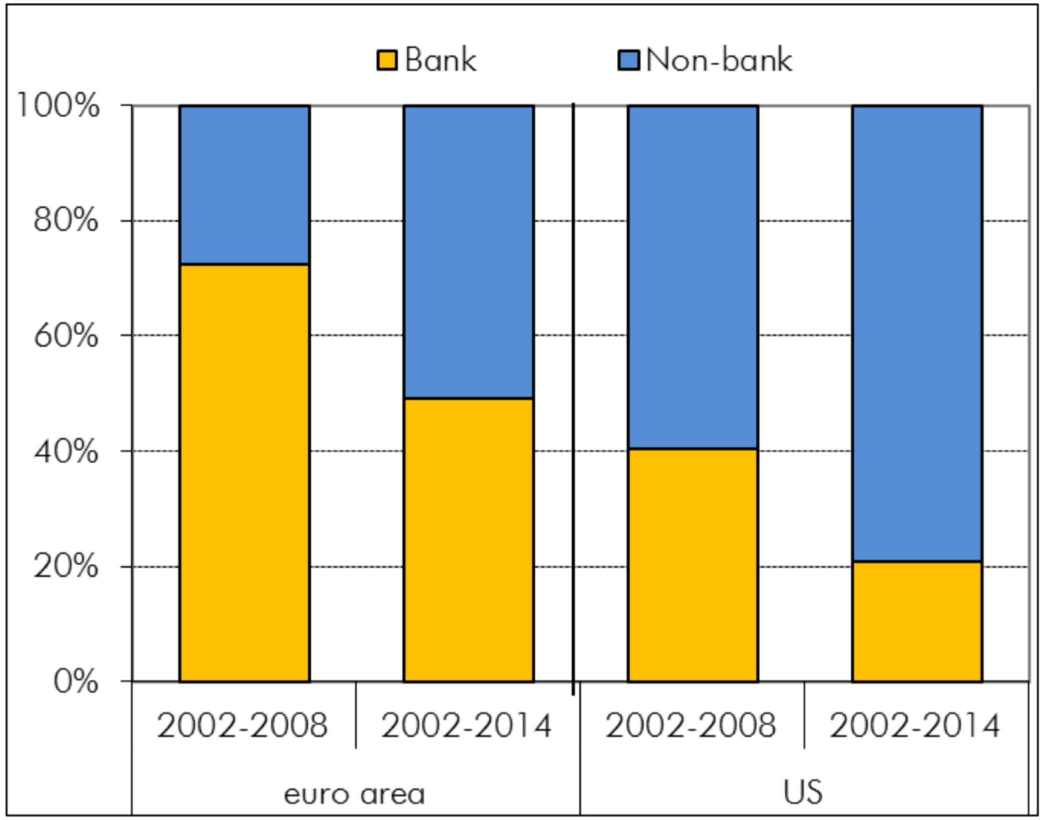
Can MPL Help on closing the Financing Gap?

- Governments are looking to MPL and equity crowd funding as key market driven tools to help reduce this gap.
- Support has been both direct and indirect.
- Indirect: reducing overall barriers to entry, such as more streamlined regulation, as well as facilitating other aspects helpful to enabling MPL, such as comprehensive credit reporting.
- Direct support: UK government has placed €90 on a number of MPL specifically for lending to small businesses.
- Milne and Parboteeah (2016) show that MP lenders supply 13% of new loans to enterprises (with turnover less than $1.2M)

Drivers of Marketplace Lending

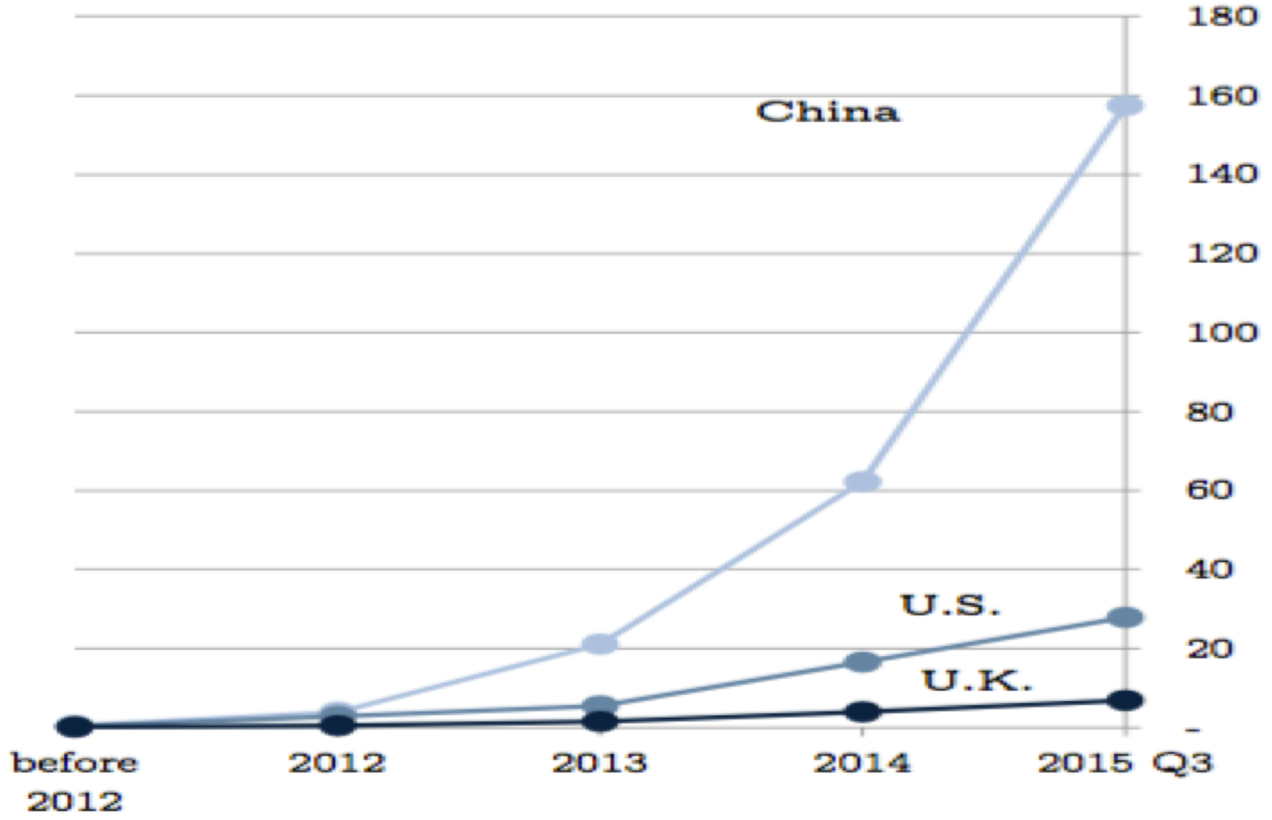
- 1. Regulatory arbitrage: no legal capital requirements for MPLs
- 2. Availability of Credit Reporting Data: MPLs rely on credit rating agencies and in some cases have access to positive data (in comprehensive regimes)
- 3. Millennials: low loyalty to banks, and demand fast, convenient and cheap credit
- 4. Smartphones and credit cards: level of credit card penetration and willingess to use internet banking tools good index for market ripe for market place lending
- 5. Technology arbitrage: MPLs not burdended by legacy systems the banks operate.
- 6. Hence operate without traditional brick and mortar branch network and hence have significantly lower operating costs than banks.
- 7. Estimated MPLs have 400 basis cost advantage over traditional banks (McKinsey 2016).

Trends in Non-bank Lending: EU and US



Source: Authors, based on Cour-Thimann and Winkler (2013), with updated data.

Marketplace Loans: Cumulative Worldwide



Source: AltFi, Lending Club, Morgan Stanley Research estimates, Prosper, Wangdaizhijia, HJCO Capital Partners

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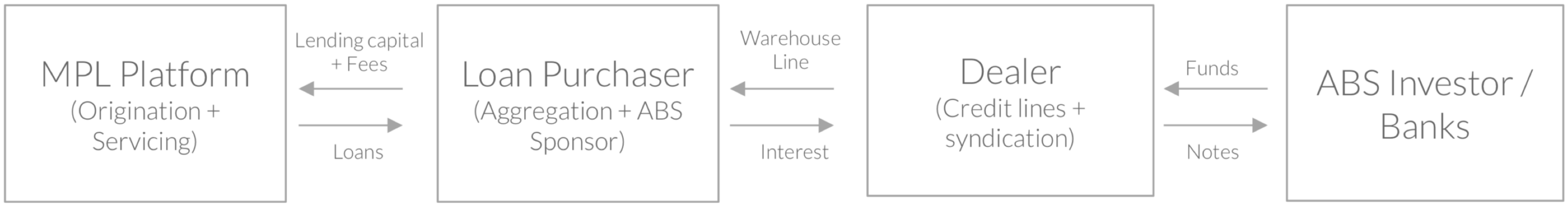
Securitization Structure: Platform Lenders



Regulatory background

- Market
- Platform: intermediate lender loan through platform and sell to SPV

➢ Forms of due diligence, anti-money laundering check on borrowers etc.

➢ Terms and conditions and repayment

➢ Perform function as servicer of loans (general risk can be mitigated through pledges, regular cash sweeps and back up servicer)

➢ Disclosure: 409 Capital Markets Requirements (wholesale market offering); data disclosed on loan by loan basis (Commission Delegated Regulation 625/2014); and Art 17 AIFMD (sponsor and originator)

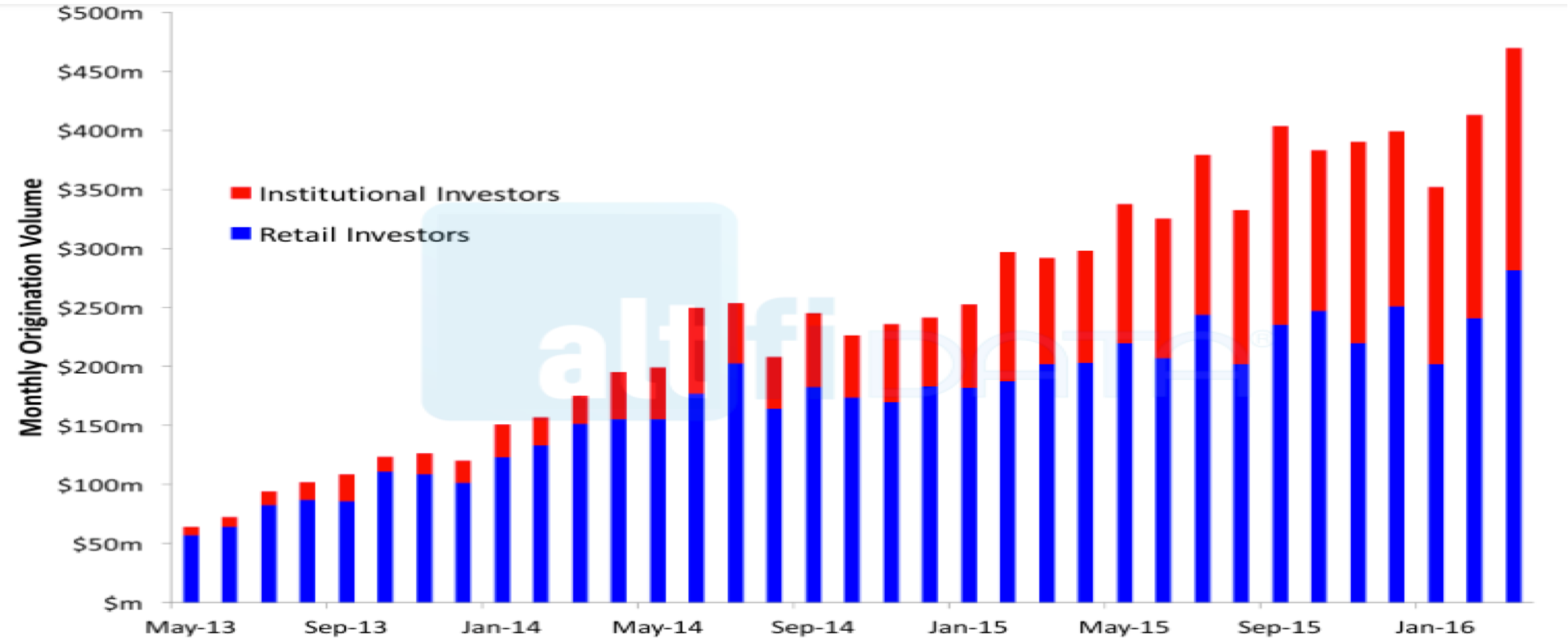
Marketplace Securitization: Benefits and Costs

- Benefits
  - Diversification for the investor
- Costs & Risks
  - The scope of the underlying assets shall be broadened to all sorts of debt (e.g. subordinated SME loans)
  - Partnering with reliable and recognized loan originators In case of non-payment by borrowers
  - Reputational risks - highly concentrated
  - Operational risk in case of several defaults – Staff capacity
  - Quality of the underwriter
  - Retention of 5% in transaction per Article 405 Capital Markets Regulation

Institutional Investors

- Benefits from the structure
- Institutional Investment preferences

Monthly Origination Volume



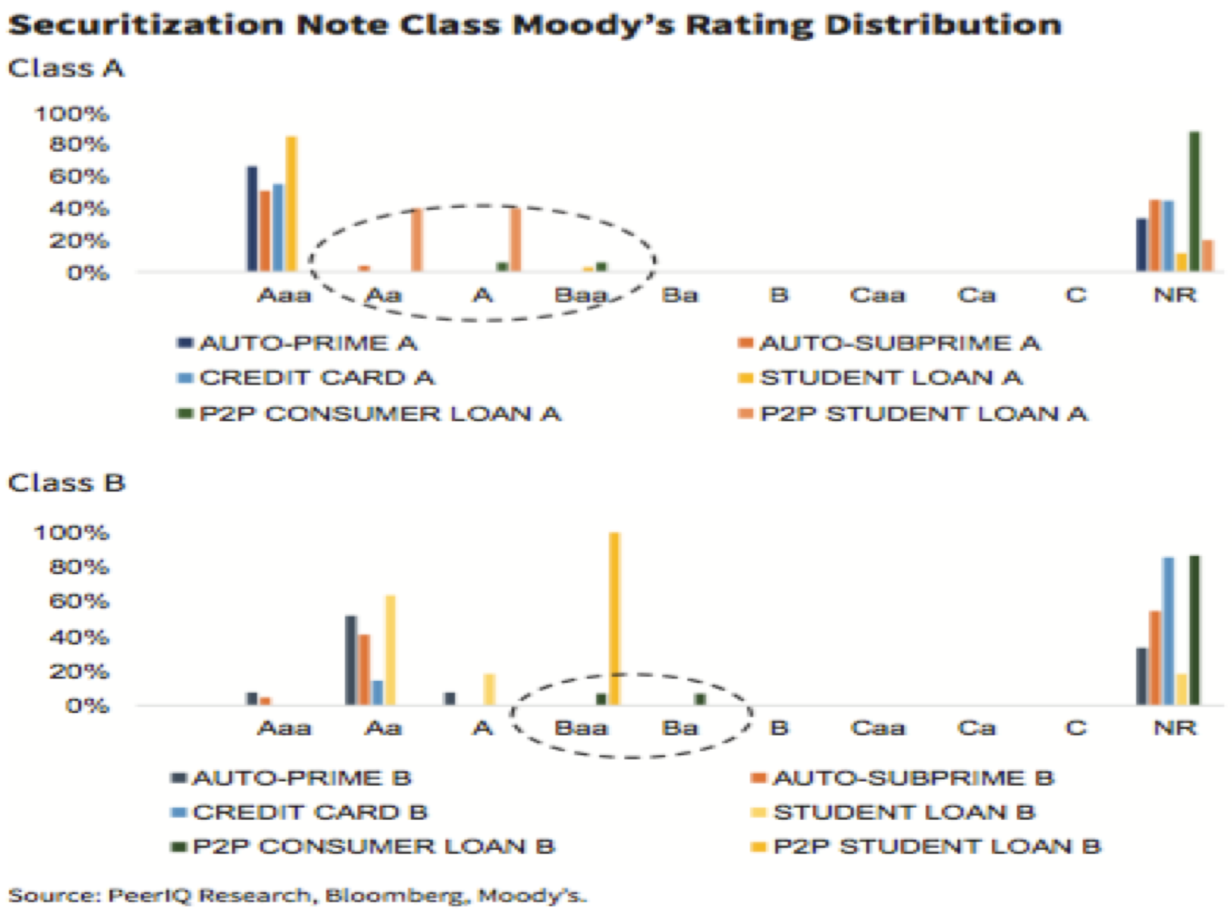
Banks

- Benefits from the structure
  - Lower interest rates – More savings for the public
    - Better allocation
    - Lower infrastructure costs for banks
  - Structure
    - Banks can work as Placement Agents
    - Bank can work as the depositary institution
    - The structure facilitates loans between bank and borrowers

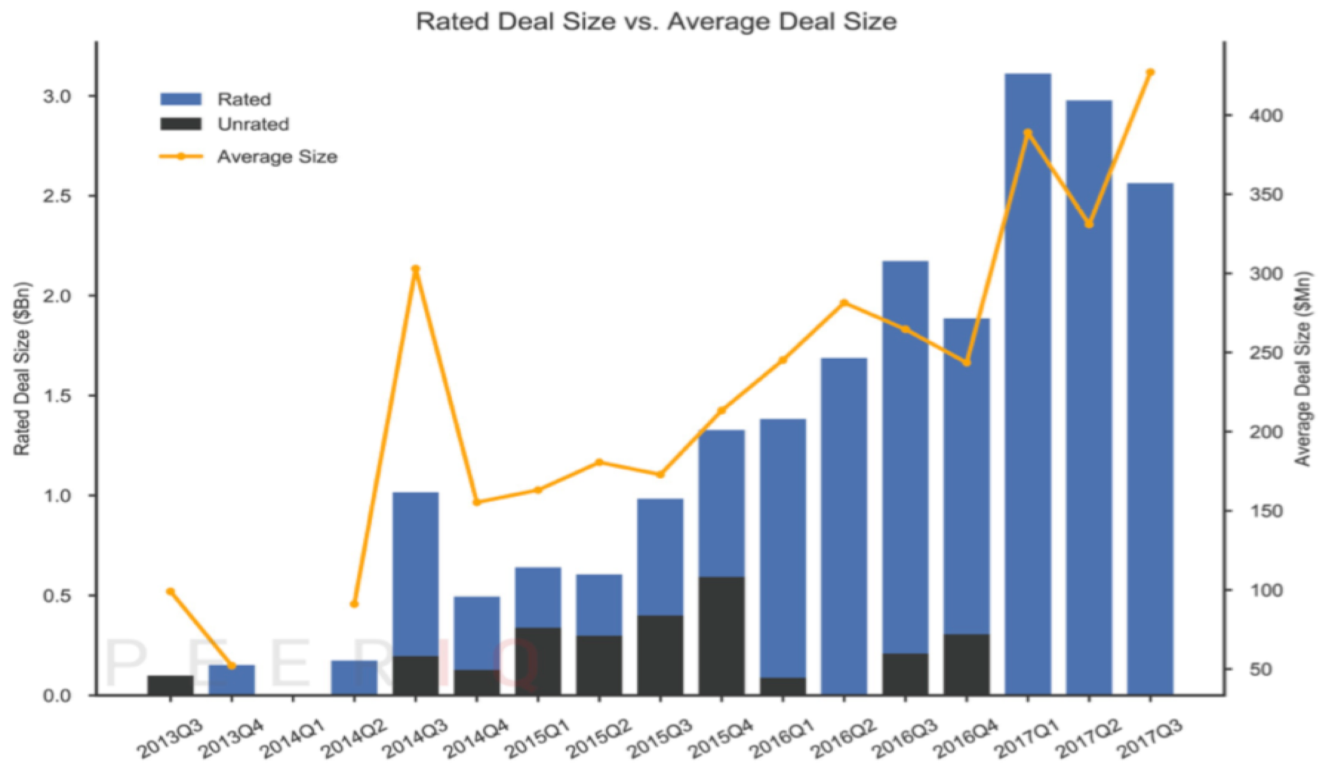
Pension Funds

- Requirements
  - Credit rating
  - Clearing mechanism

Securitization Moody’s Rating Distributions



Average Deal Size and Rated Issuance

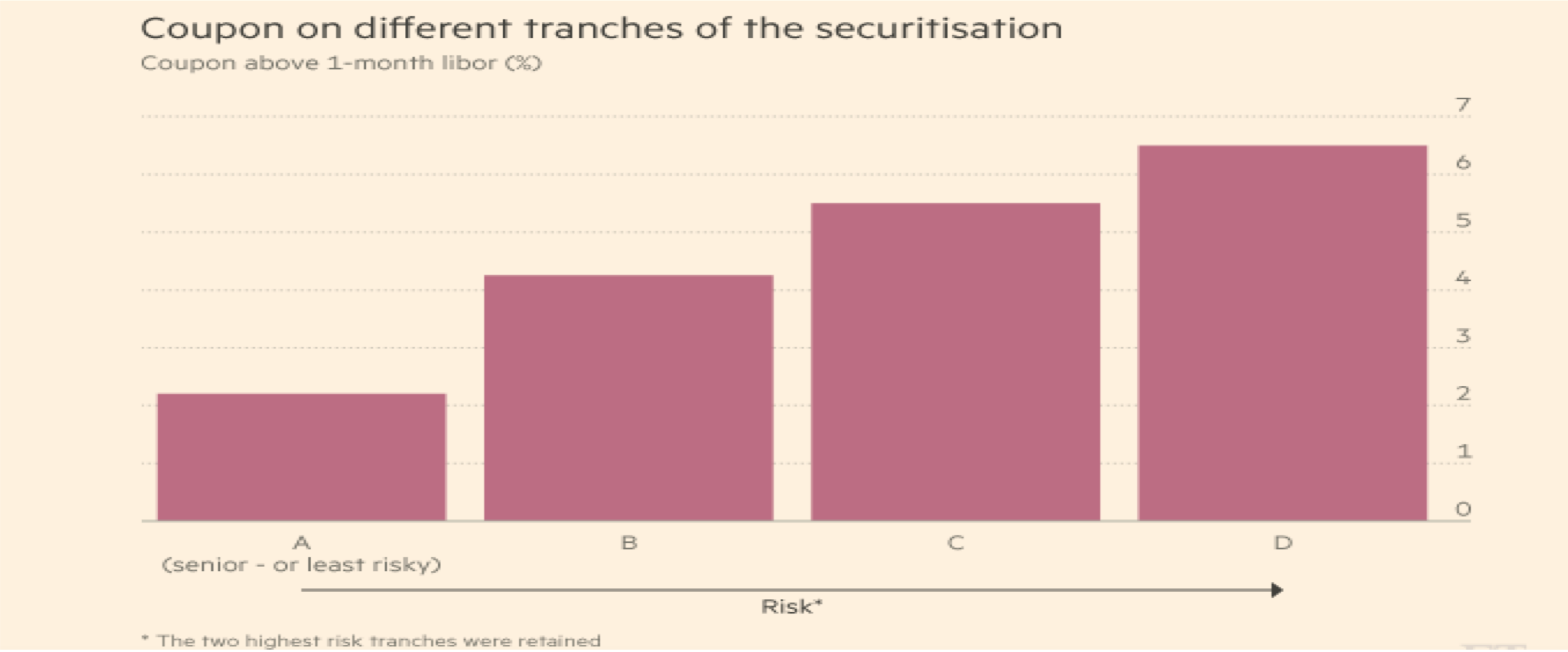


Source: Bloomberg, PeerIQ

Securitization Note Class Metrics

Deal Name	MFT 2017-1	MFT 2016-1	ARCT 2017-1	SCLP 2017-2
Transaction Date	3/23/2017	8/2/16	3/9/17	2/24/17
Originator	Marlette	Marlette	LendingClub	SoFi
Class A ($Mn)	$243	$149	$176	$307
Class B ($Mn)	$32	$18	$37	$37
Class C ($Mn)	$29	$18	n/a	n/a
Initial O/C	8.6%	10.0%	13.0%	13.2%
Target O/C	12.0%	15.0%	23.0%	22.0%
O/C Floor	2.0%	2.0%	2.0%	1.0%
Reserve Account	0.5%	0.5%	0.5%	0.5%
Collateral Interest Rate	14.8%	14.8%	15.3%	9.7%
Note Coupon	3.9%	5.1%	3.9%	3.6%
Servicing Fees	1.1%	1.0%	1.0%	0.7%
Total Gross Excess Spread	9.7%	8.8%	10.4%	5.4%
Class A - CE	27.4%	28.0%	28.5%	23.0%
Class B - CE	17.9%	19.3%	13.5%	13.7%
Class C - CE	9.1%	10.5%	n/a	n/a

Funding Circle: Senior notes (BBB) (Average weighted-average interest rate: 9.6%)



Outline

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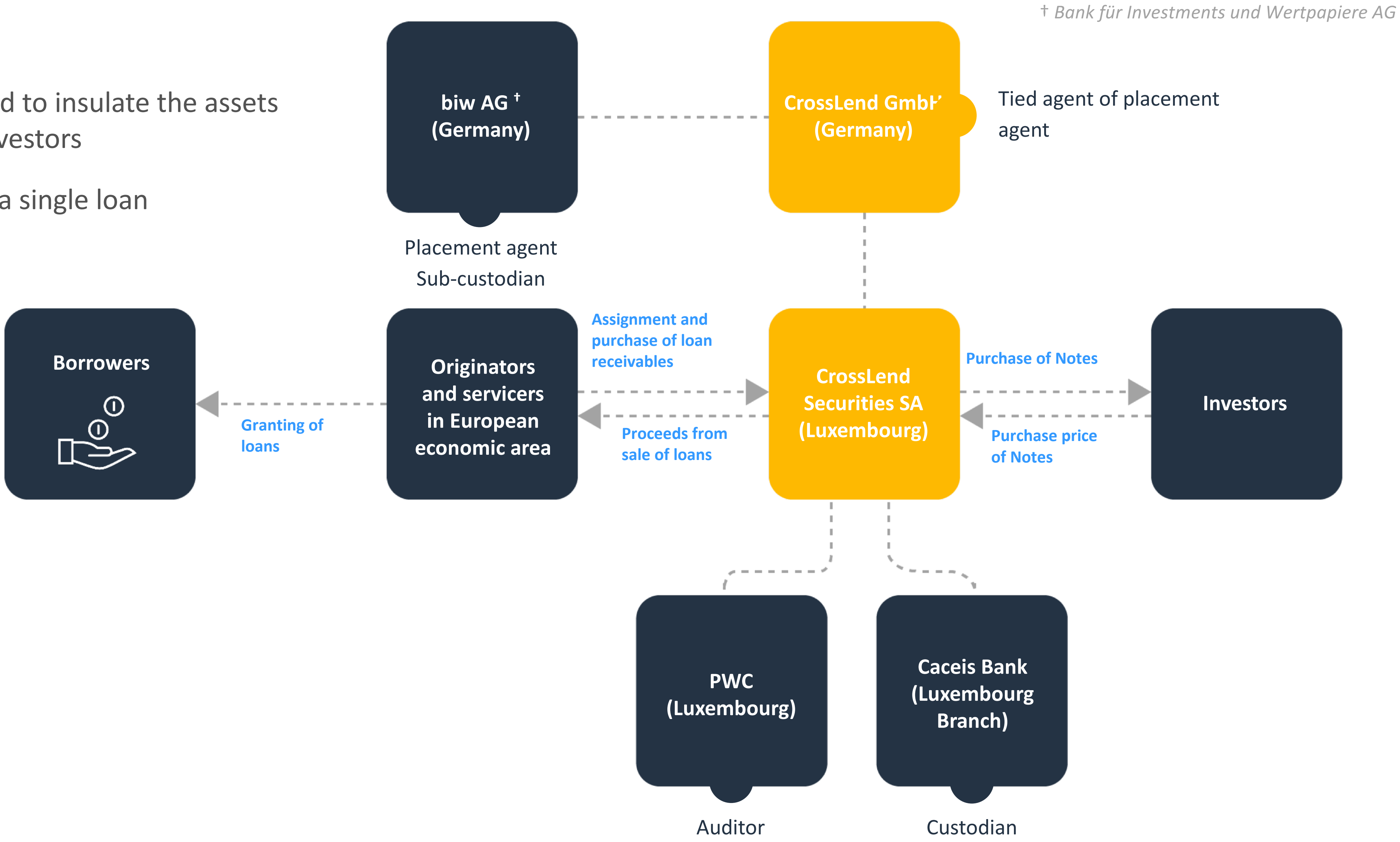
- III. **Innovation in Marketplace Securitization: Single Loan Securitization**

Single Loan Securitization: sale and purchase of single-loan bonds

Structure

The structure is designed to insulate the assets for the benefit of the investors

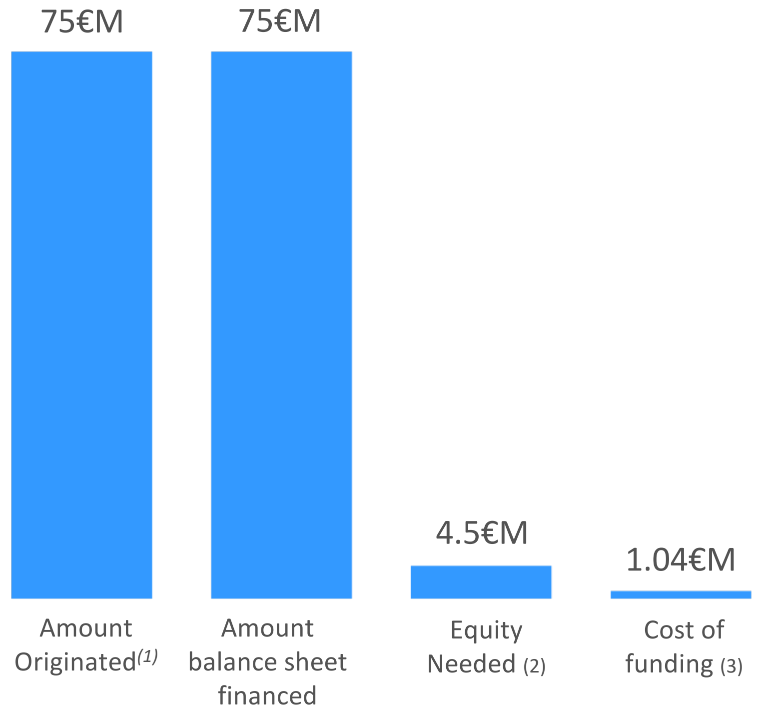
Each bond is backed by a single loan



Single-loan securitization versus traditional securitization

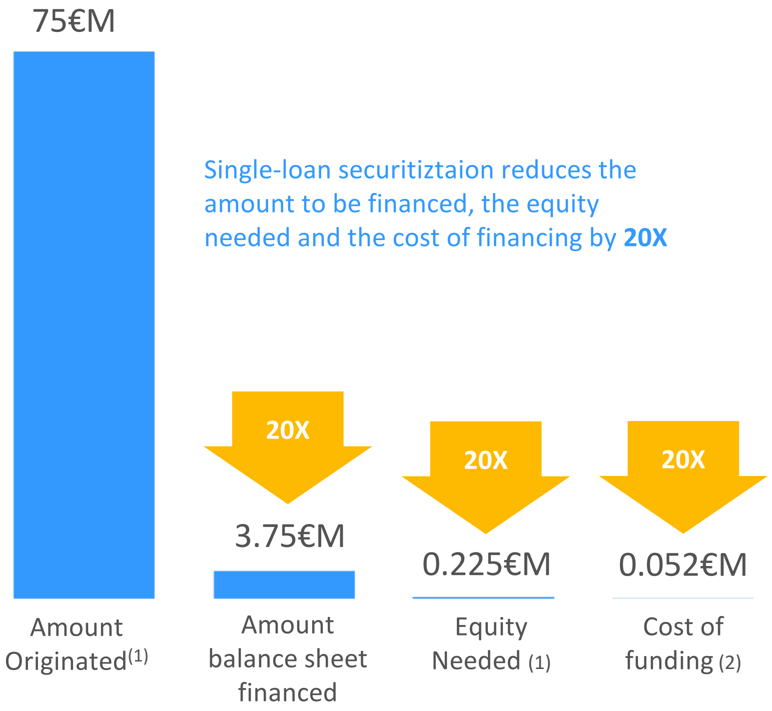
Traditional securitization

The bank needs to finance on balance sheet the loans until the portfolio reaches a size (i.e. 75€M) that makes traditional securitization economically attractive (i.e. over 6 months)



Single-loan securitization

During a 6 months period the bank securitizes immediately any new loan, so it finances only the 5% position it retains (skin in the game)



Notes: (1) Assuming over a period of 6 months; (2) Calculated as 6% of loans on balance sheet: assuming generic 8% equity requirement and 75% risk weight 75% (consumer loans); (3) Assuming 94% debt financing at a cost of 2% pa and 6% equity financing at a cost of 15% pa over 6 months.

Q&A