Risks

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SROCC, Ahead of the Curve
Training Panel
Toronto, 22 May 2013

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Agenda

- Introduction
- Risks

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- Research Function of IOSCO working on emerging risks (SCRR; Research Department)
- Work:
  - Securities Markets Risk Outlook
  - Risk Identification Methodology
  - Risk Dashboard
  - Risk Roundtables
  - Risk Surveys
  - Market Intelligence
  - Consultation of IOSCO Committees
  - Input to FSB work streams
  - Exploratory analysis cyber crime

Introduction

Conclusions of Securities Markets Risk Outlook 2012:

	Low	Moderate	High
Unintended consequences of Central Clearing			
Systemic implications of high frequency trading			
Risk build-up via shadow banking activities			
Structured retail product innovation			
Inadequate disclosure of financial risks			
Risks from regulatory uncertainty			

Source: IOSCO Research Department.

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Risks

- Low interest rate environment
- Collateral in a stressed funding environment
- Derivatives markets
- Cyber-crime

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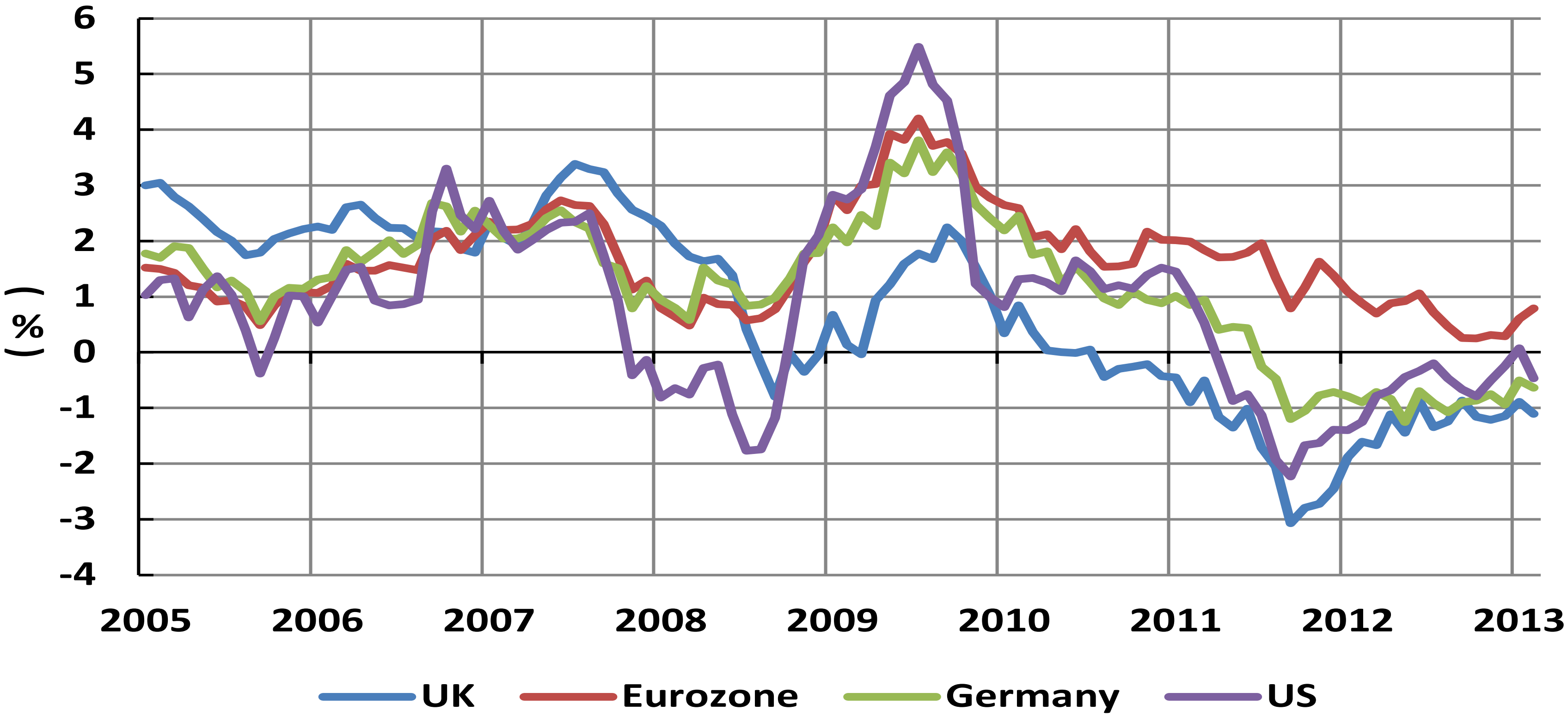
Low interest rate environment

Expansionary monetary policies reduce real interest rates to maintain the functioning of the financial markets and to combat the recession

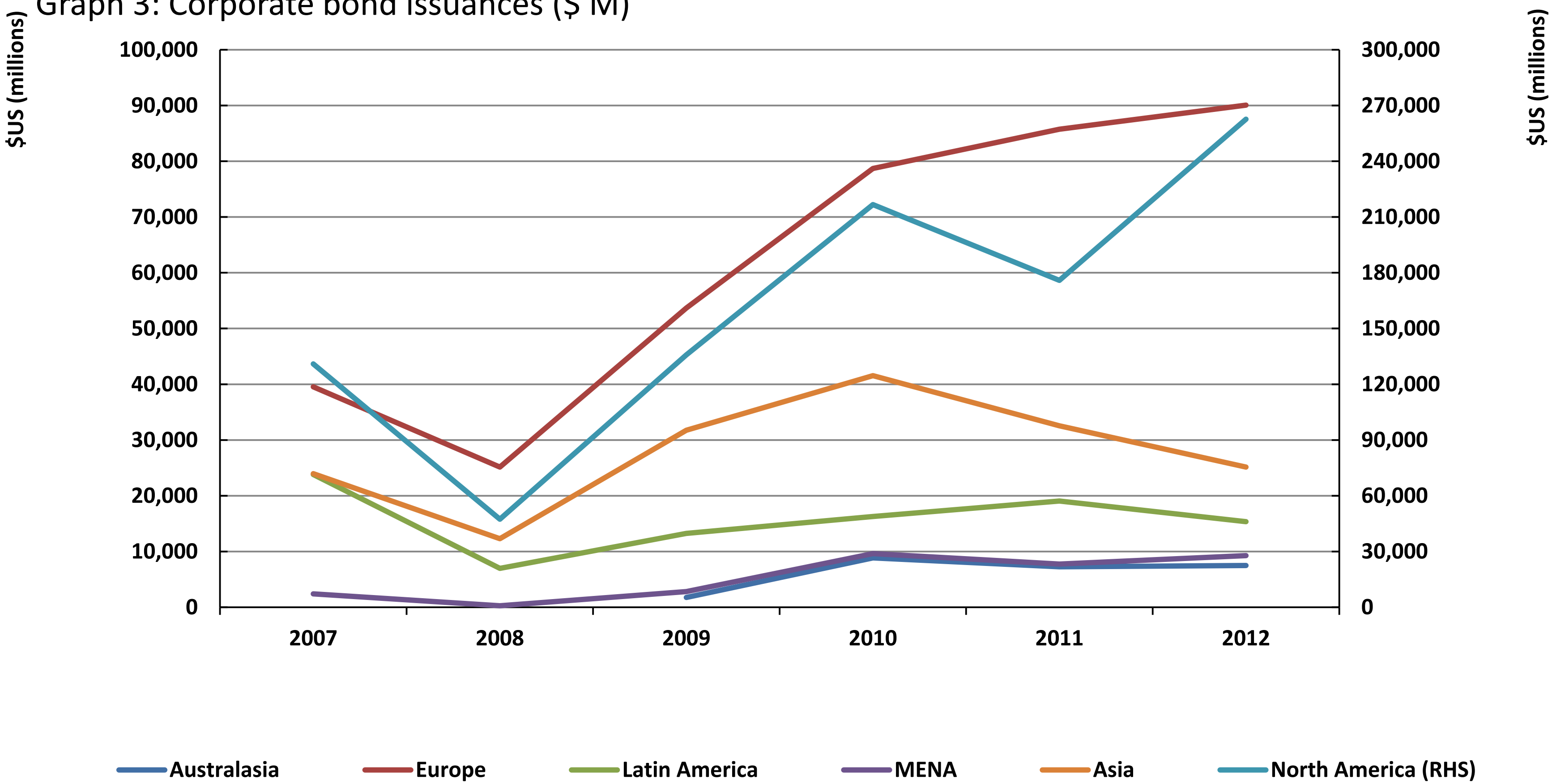


Source: IOSCO Risk Dashboard, Bloomberg

Low interest rate environment

- Cheap borrowing for big firms (not SME´s) drive corporate bond issuances up…

Graph 3: Corporate bond issuances ($ M)

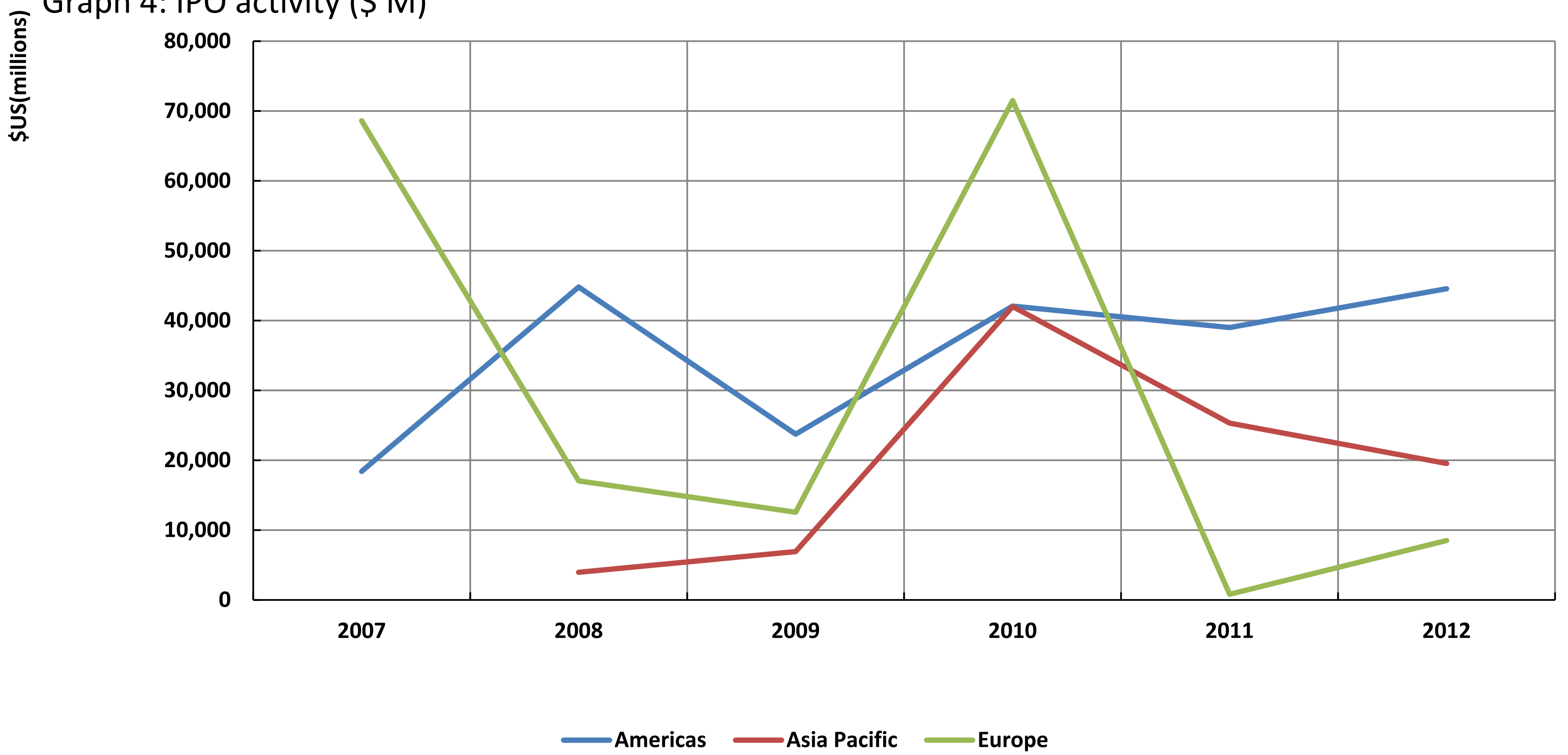


Source: Dealogic

Low interest rate environment

- While IPOs on the equity markets seems less attractive for firm´s funding…

Graph 4: IPO activity ($ M)

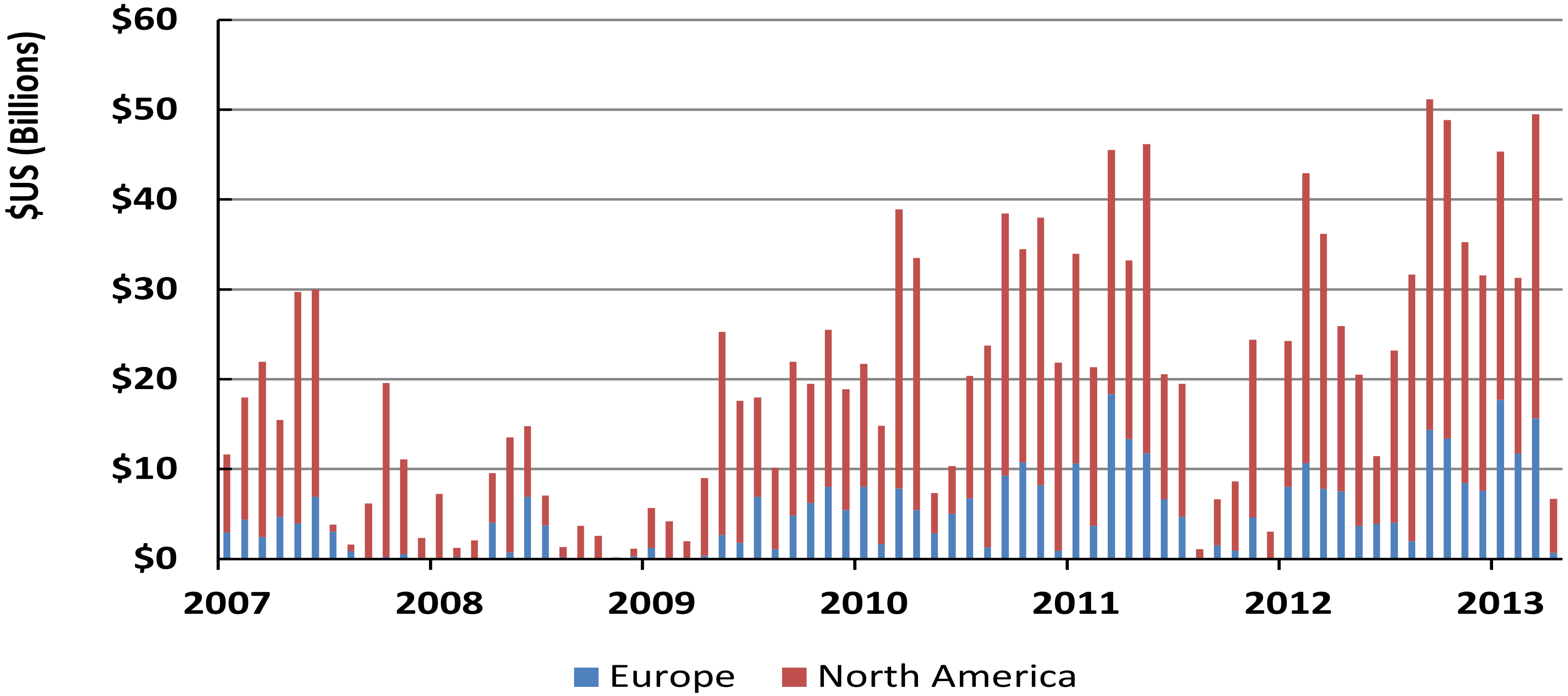


Source: World Federation of Exchanges

Low interest rate environment

- Certain segments of bond markets show high volumes of issuance, especially high yield in the US – EU shows moderate levels…

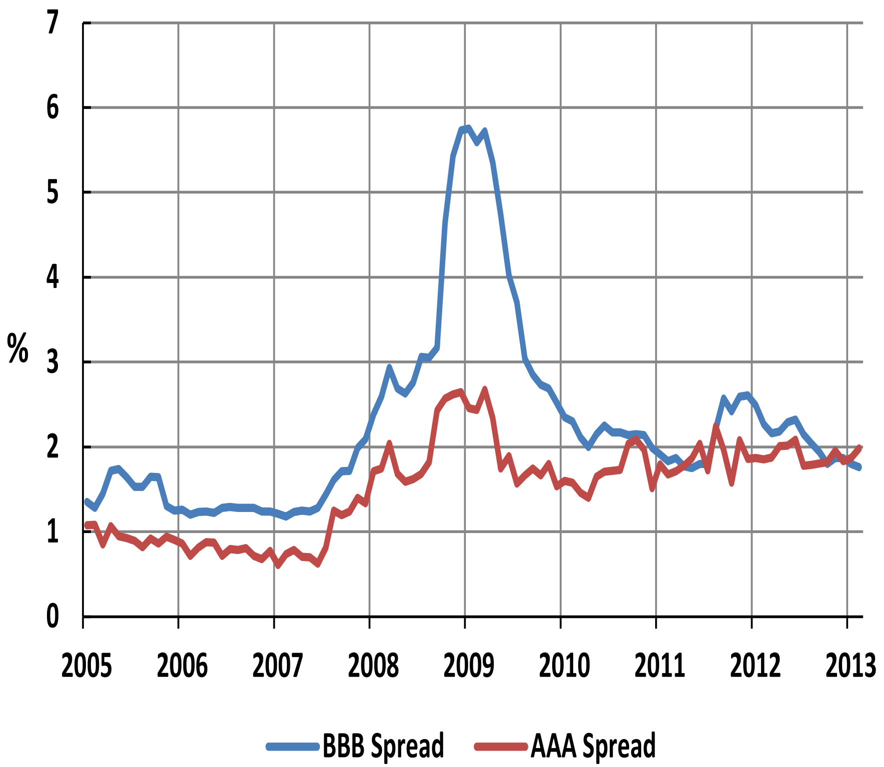
Graph 5: High yield corporate bond issuance per month ($ bn)



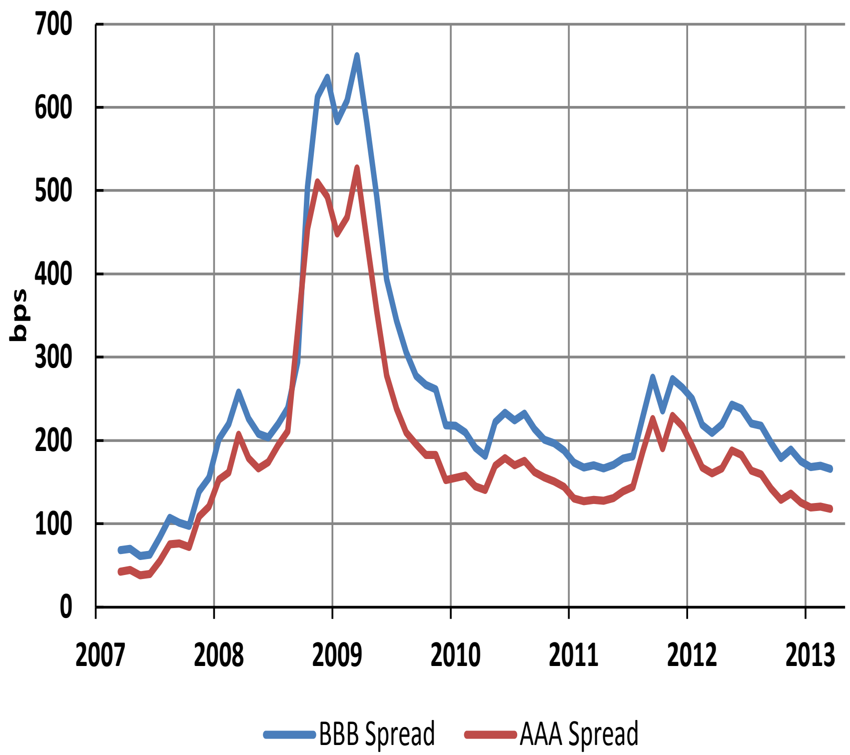
Source: IOSCO Risk Dashboard, Dealogic

Low interest rate environment

Graph 6A .Private sector spreads over 10yr Government treasuries (percentage points), US



Graph 6B. Private sector spreads over generic Iboxx 10yr yields (percentage points), Euro area



IOSCO Risk Dashboard, Bloomberg

Low interest rate environment

Trends:

- High yield bonds sold through collective investment schemes and retail structured products/exchange traded funds and products (ETF, ETP).
- In certain countries search for yield goes into real estate and real estate funds.

Some questions about the risks:

- **Do investors know the risks?**
- **What if interest rates go up or stay low for a very long period?**
- **Could there be problems of investors being locked in?**

And a question about an opportunity for the stimulation of financial stability/global economy:

- **What are the ideas for the inclusion of SME´s?**

Risks

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Collateral in a stressed funding environment

Trends:

- Available high quality collateral has shrunk from $ 10 trillion in 2007 to $ 6 trillion in recent years (IMF)
- Shift from unsecured to secured financing as confidence has dropped
- Funding environment changed by regulation:
  - Basel capital rules (huge impact on collateral)
  - MMF rules (e.g. shortened maturities)
  - Margin requirements OTC derivatives (expected huge impact on collateral)
  - Rules on structured finance products
- Collateral *squeeze*…

Collateral in a stressed funding environment

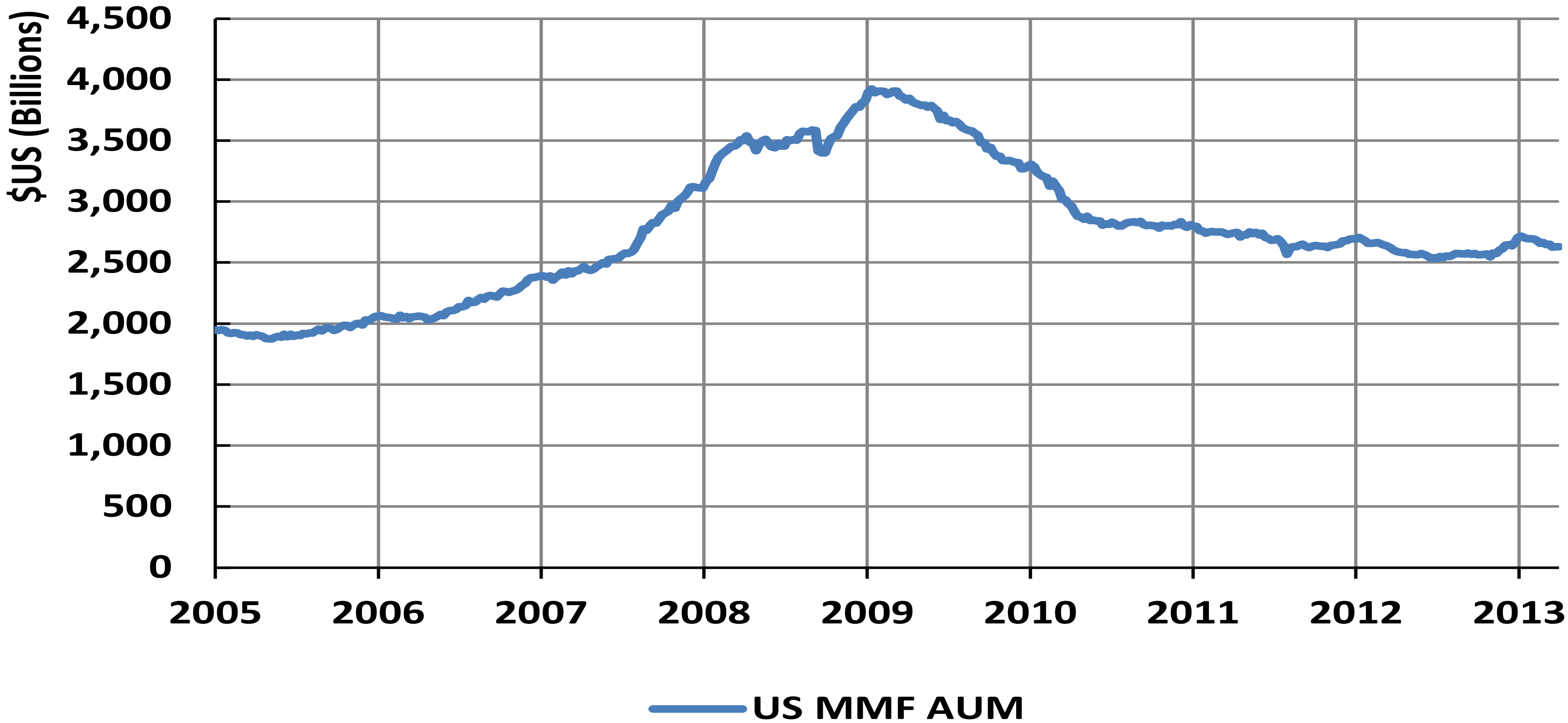
	Retail		Wholesale						
Funding source:	**Deposits**	**Equity**	**Central Bank**	**MMFs**	**Structured products**	**Repo**	**Securities lending**	**Re-hyp.**	**Collateral transform**
	Structured retailprod.	**Bonds**	Assets as collateral for cash placed with Central Banks	Debt titles placed with Money Market Funds	Asset backed securities (CDO ↓ covered bonds ↑) sold to investors	Assets lent out under temporary repurchase agreem. w. investment banks	Securities lent out for a fee to brokers and investment banks	Securities borrowed from investors and lent-out for a fee	Collateral packaged and upgraded sold to clients
Funding trend:	D: ↑ S: ↑	E:= B: ↑	↑	↓	↓↑	↑	↓	?=	?↑
Transparency:	**On-balance sheet, if publicly offered, prospectus**				**Partly off-balance sheet, if publicl offered prospectus**	**Off-balance sheet, bi-lateral transactions and contracts**			

Source: IOSCO Research Department

Collateral in a stressed funding environment

- MMFs AUM is back at pre-crisis levels after huge outflows

Graph 7: Asset under management of US MMFs ($ bn)

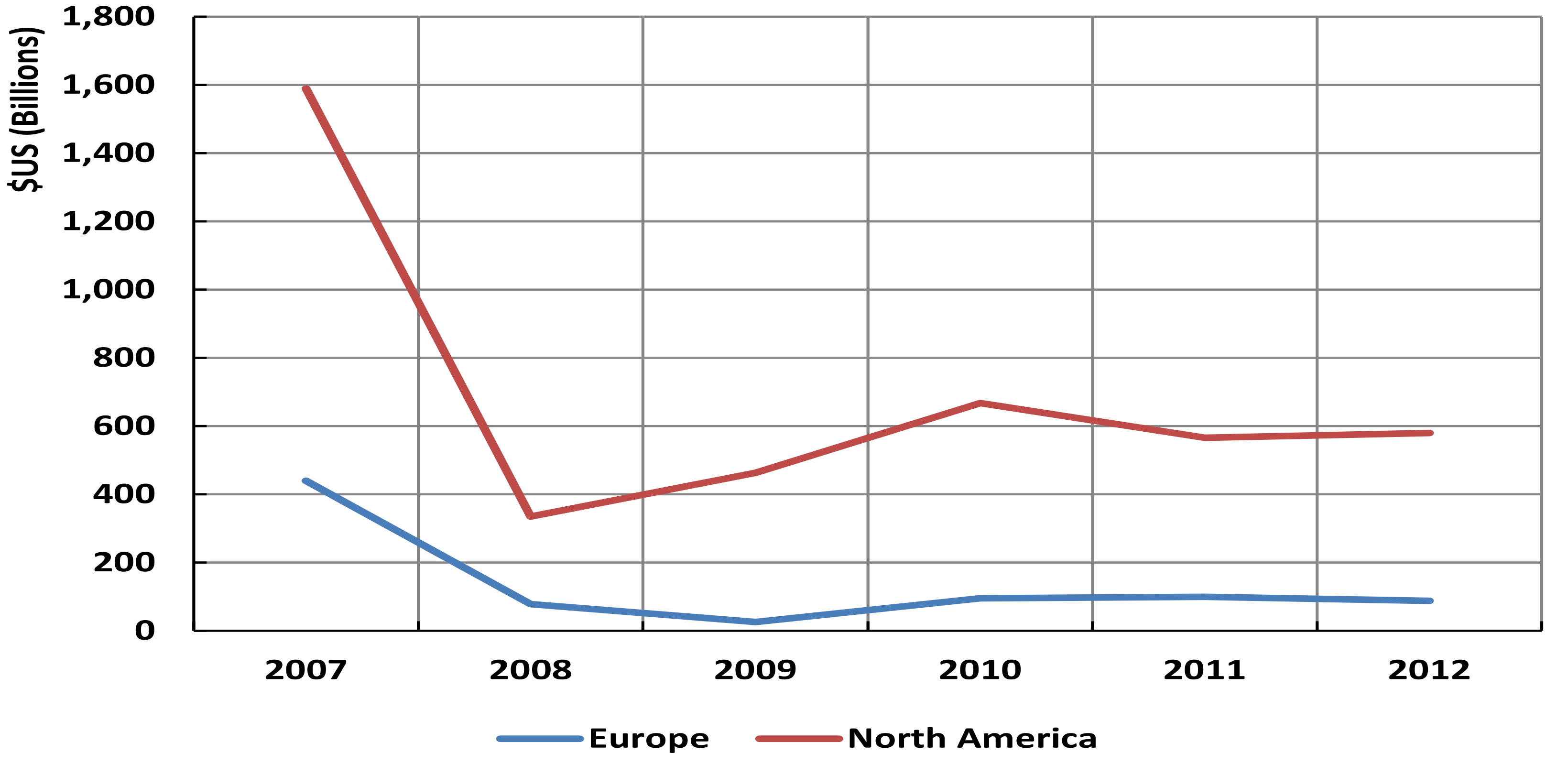


Source: IOSCO Risk Dashboard, Bloomberg, ICI

Collateral in a stressed funding environment

- Issuance of structured products (ex. covered bonds) has fallen…

Graph 8: Issuance of structured products in EU and US ($ bn)

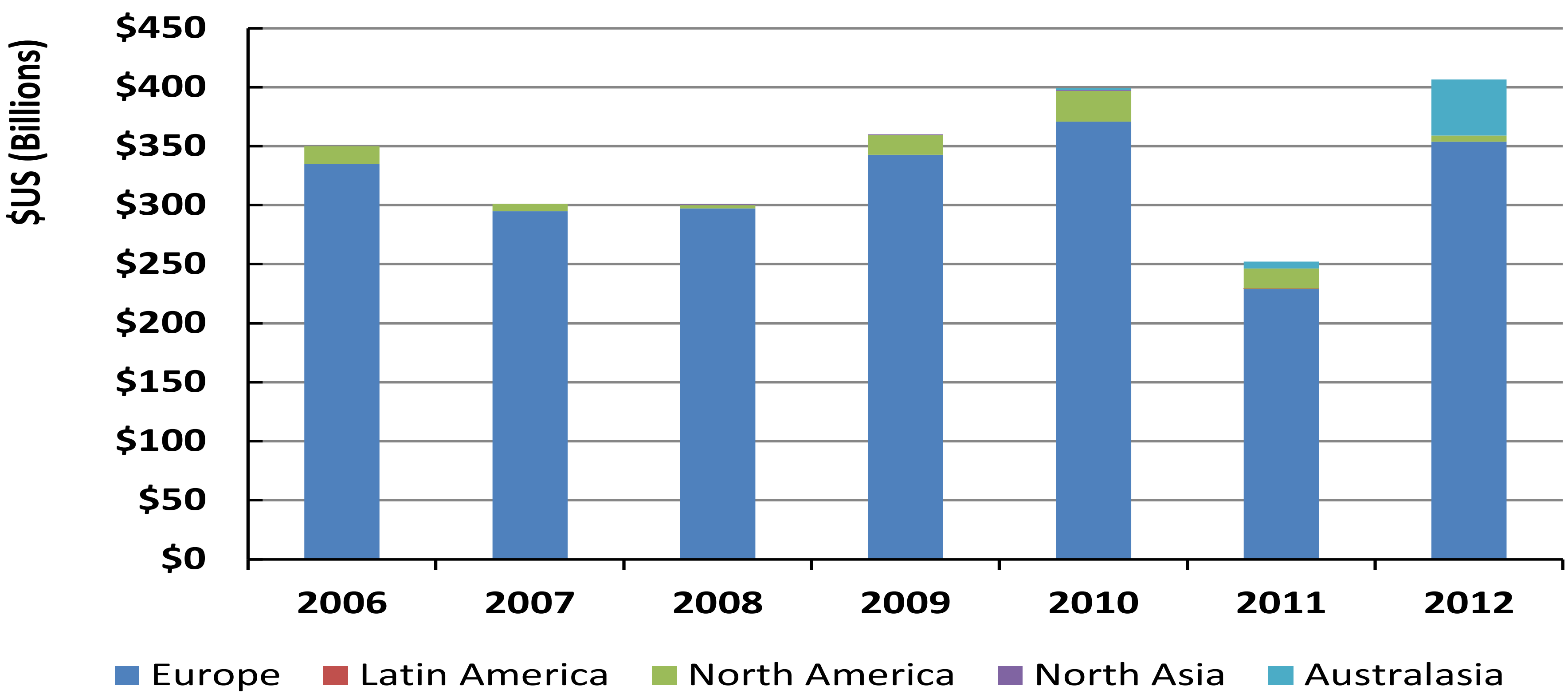


Source: IOSCO Risk Dashboard, Dealogic

Collateral in a stressed funding environment

- Issuance of covered bonds has grown from 2007 to 2012, and is a merely European funding vehicle…

Graph 9: Issuance of covered bond ($ bn)



Source: IOSCO Risk Dashboard, Dealogic

Collateral in a stressed funding environment

	before crisis	**now**
Collateral	$ 10 trillion	$ 6 trillion
Money Market Funds (US)	$ 2.5 trillion	$ 2.7 trillion
Structured products (US)	$ 1.6 trillion	$ 600 billion
Structured products (EU)	$ 420 billion	$ 100 billion
Covered bonds	$ 300 billion	$ 400 billion
Securities lending	$ 1.7 trillion	$ 1 trillion
Triparty repo (US)	$ 2.5 trillion	$ 2 trillion
Repo market (EU)	€ 4.6 trillion	€ 6.2 trillion
Collateral transformation	?	?
G7 GDP	$ 32.4 trillion	$ 35.7 trillion
Source: IOSCO RD, IMF, M. Singh (2013), Dealogic, Bloomberg		

Collateral in a stressed funding environment

- Collateral transformation is a new service and we don´t know exactly what it is, nor how big it is…
- We know that it is off-balance sheet
- Just as certain structured products, repo, securities lending and re-hypothecation

Some questions about the risks:

- **Is there (implicit) leverage being created by banks?**
- **Are risks being hide or shifted out of the regulator´s sight?**
- **How long are the collateral chains?**
- **Where do the risks pool?**
- **How big are the interdependencies with CCPs?**

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Derivatives markets

CCPs concentrate risks and provide transparency. Last years' CCP usage increased considerably.

Table 2: Notional volumes of selected CCPs around the globe 2011 - 2012

CCP	Region	Product	Dec-11 ($US, billions)	Dec12 ($US, billions)	% Chg
CME	US	IRS	$114	$1,300	1040%
SGX	ASIA	IRS	$184	$251	36%
LCH	EU	IRS	$283	$339	20%
Japan SCC	Asia	IRS	-	$1,280	n/a
CME	US	CDX	$15	$98	553%
LCH	EU	CDS & ITRAXX	$68	$135	99%
ICE	US	CDS & CDX	$12,000	$21,000	72%
ICE	EU	CDS & ITRAXX	$8,000	$12,000	40%
Japan SCC	Asia	CDS	-	$3,300	n/a
CLS	Global	FX	$4,380*	$4,610	5%
LCH	EU	FX	-	$115	n/a

Source: CME, Singapore Stock Exchange, LCH Clearnet, ICE, CLS, SCC, theOTCspace; compiled by IOSCO Research Notes: * Data as at Jan 2012;

Derivatives markets

Issues:

- Collateral absorbed by CCPs. Further squeeze?
- CCPs following similar risk management model – amplification?
- CCPs accepting lower quality collateral – race to the bottom?
- CCPs becoming active derivatives shops?
- Enhanced interconnection with banks – more concentrated risk?
- What is the resilience of the system:
  - In the case of a huge margin call?
  - In the case a big trader/bank fails?
- Where are the weak spots in the network?

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Cyber crime

Issues:

- Financial system relies on technological infrastructure.
- Nature of cyber-crime is changing – more sophisticated.
- Methods, motives, purposes and consequences not clear.
- Attack: not an ‘if’ but a ‘when’ question.

Questions:

- **Systemic impact?**
- **How vulnerable are financial market infrastructures?**
- **Awareness is growing, but are regulators prepared?**