

**Special Issue
August 2012**

SPECIAL ISSUE TREASURY 2012



IAFEI Quarterly

Special Issue Treasury

*The electronic professional journal of IAFEI
(International Association of Financial Executives Institutes)*

Dear Financial Executive,

You receive the **IAFEI Quarterly, Special Issue Treasury 2012.**

This is another issue of the electronic professional journal of IAFEI, the International Association of Financial Executives Institutes. This journal, other than the IAFEI Website, is the internal ongoing information tool of our association, destined to reach the desk of each financial executive, or reach him, her otherwise, at the discretion of the national IAFEI member institutes.

The corporate treasury function has been, and is being, directly and immediately impacted by the many diverse facets and consequences of recent and ongoing financial crises in several world regions.

This present **Special Issue Treasury 2012** provides you with two presentations, by Banks, on the new banking regulations in Europe and North America, with special emphasis on Basel III, and especially their impact on banks and on the financing of corporations. As well, comparative data on banks in Europe, North America, Asia, Pacific are given.

This is followed by a Corporation presentation, giving a view on key regulatory changes from a Treasurer's perspective.

In addition, there is a presentation on Accessing the Opportunities for Growth in China, the macroeconomic outlook, the financial market structure. Here, in addition, plenty of comparative data, with developed market economies, developing market economies, and growth market economies are given, putting the subject into a truly global perspective.

All presentations have been presented at the ACT Annual Conference, April 16 to 18, 2012, in Liverpool, United Kingdom, organised by **ACT, the Association of Corporate Treasurers, United Kingdom**. To this association, several IAFEI member institutes maintain good relationships, and through these IAFEI has got access to these presentations.

IAFEI is thankful for having received permission from the Association of Corporate Treasurers, ACT, as well as from all individual presenting corporations to include their presentations in the original form in this

Special Issue Treasury 2012.

Once again, I repeat our ongoing invitation to IAFEI member institutes, and to their members, to send us articles for inclusion in future IAFEI Quarterlies, and to also send to us your suggestions for improvements.

With best personal regards



Helmut Schnabel

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Risky business, risky world

The unintended consequences of Bank regulation on the Corporate market

Russell Schofield-Bezer. MD EMEA Head of Corporate Treasury Solutions

Date: 17 April 2012

HSBC 

2012 Bank Regulation Overview

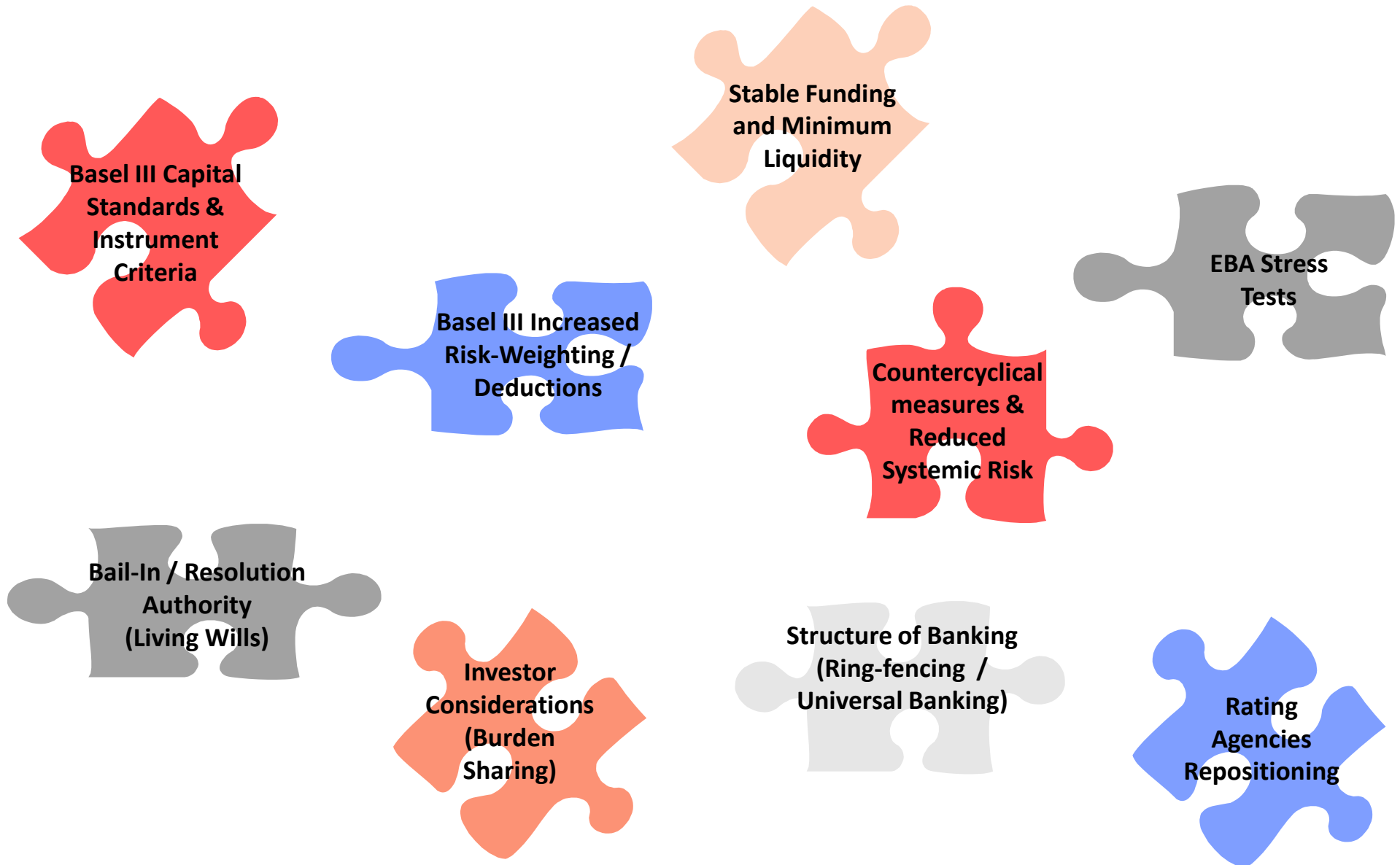
The banking world has been turned upside down with potentially significant implications for the way Corporate Treasurers access funding, manage liquidity and hedge commercial risks in their business.

Key challenges facing banks

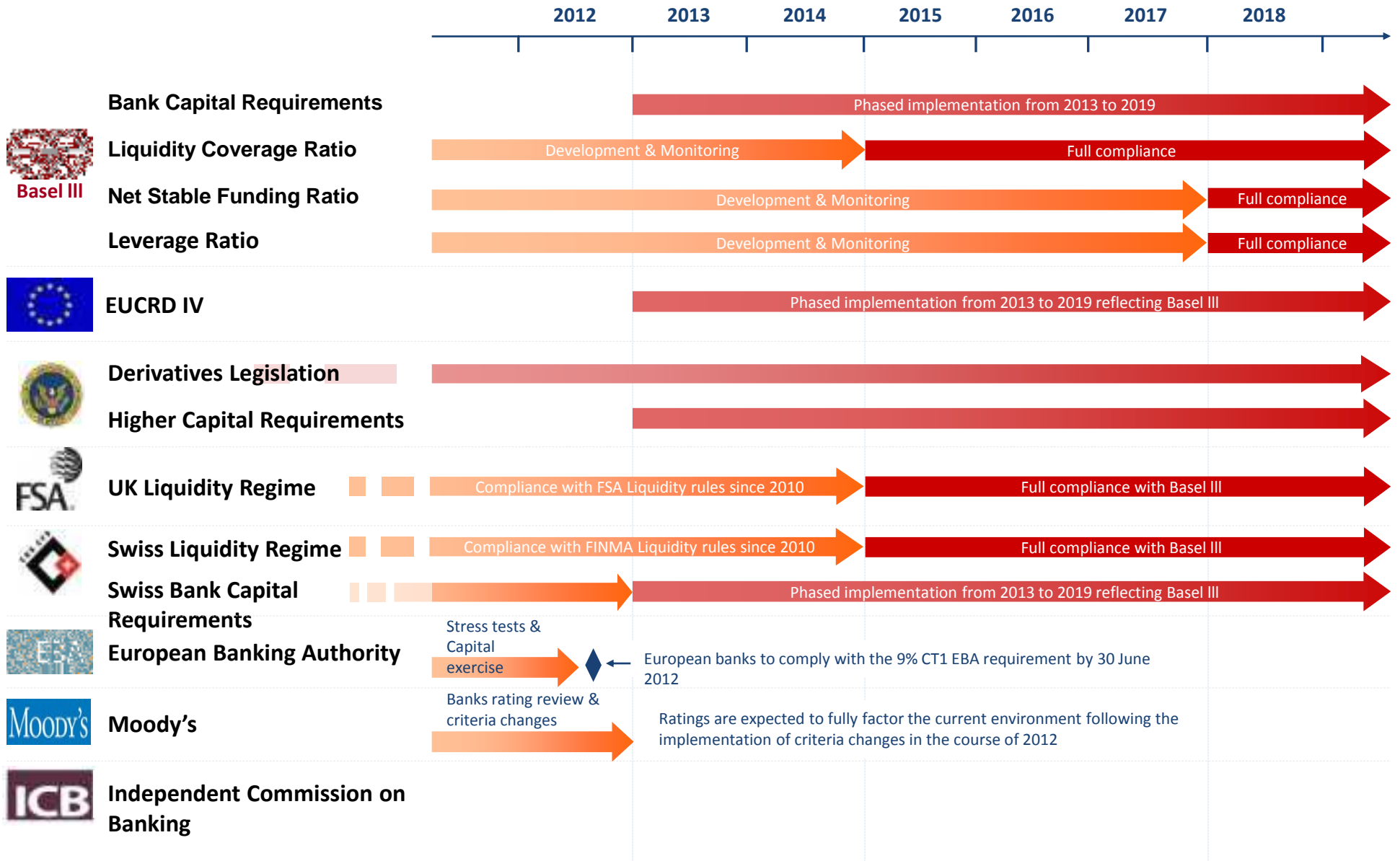
- **ECB LTROs** significantly alleviated short and medium-term funding and liquidity concerns for European banks although longer-term markets evolution remains uncertain
- **New Capital Instruments** emerge as tighter regulatory requirements put further pressure on banks' capital – Liability management, debt conversion into equity and issuance of hybrids Basel III compliant debt instruments
- **Deleveraging** has been put on hold as LTRO removed immediate pressures on funding and as banks are no longer incentivised to sell assets while waiting for the coming EBA capital assessment in June 2012
- **Moody's rating review** of 114 European banks and 17 Investment banks, after the recent S&P rating actions continue to create uncertainty
- **Rising counterparty risk** across all entities as bank downgrades exacerbate market concerns
- **Crystallisation of new regulations** with clearer implementation plans in terms of ratios and timeframe for the different jurisdictions – Basel III, SIFIs, EBA Capital requirements, ICB Resolution and Mifid II

Regulatory Discussion

The building blocks of a robust system or reckless prudence?



Timetable of Key Regulatory Events





Risky business, risky world

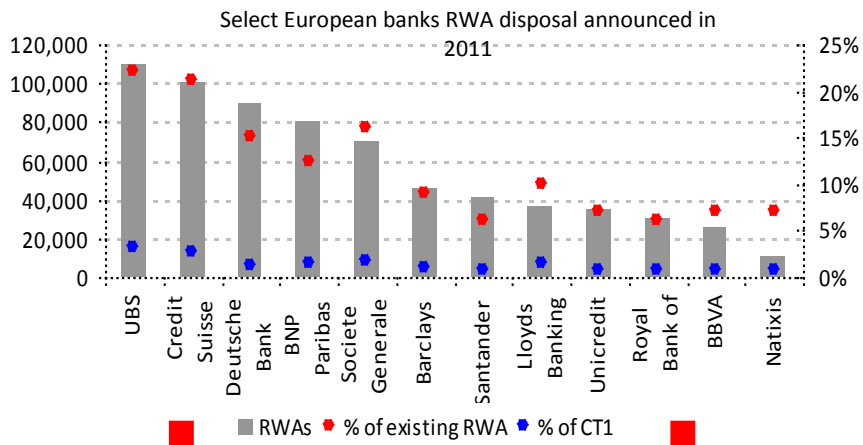
Bank capital

Date: 17 April 2012

HSBC 

Capital Concerns

EUR 1 to 1.5 trillion of European banks deleveraging estimated at the end of 2011 for the coming years



LTROs

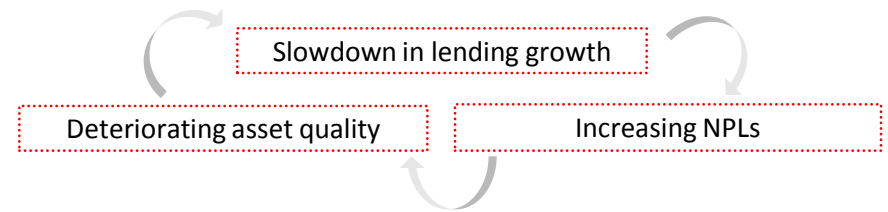
Liquidity & funding costs of carrying assets have been reduced by the two ECB 3-year long-term refinancing operations at 1% interest rate

EBA Capital Requirements

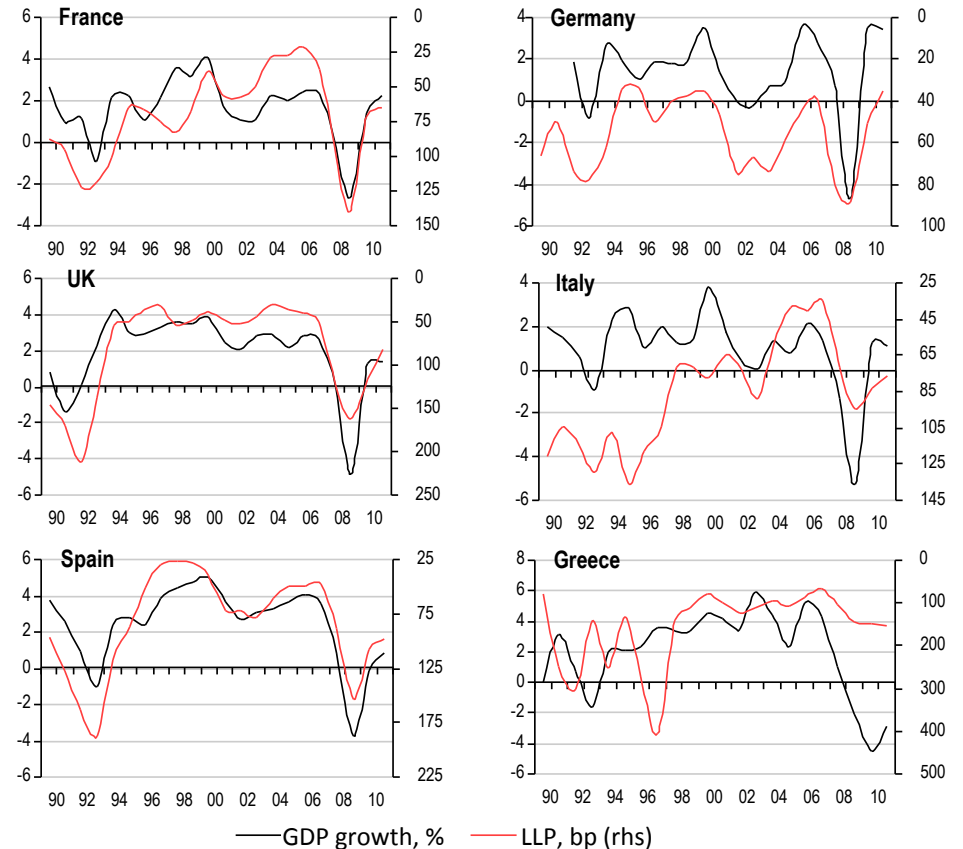
Banks are not incentivised to sell assets before complying with the EBA 9% CT1 requirement by June 2012

Immediate pressures on European banks deleveraging removed at least in the short term

GDP growth correlation to asset quality through Loan Loss Provisions



GDP / LLP Correlation

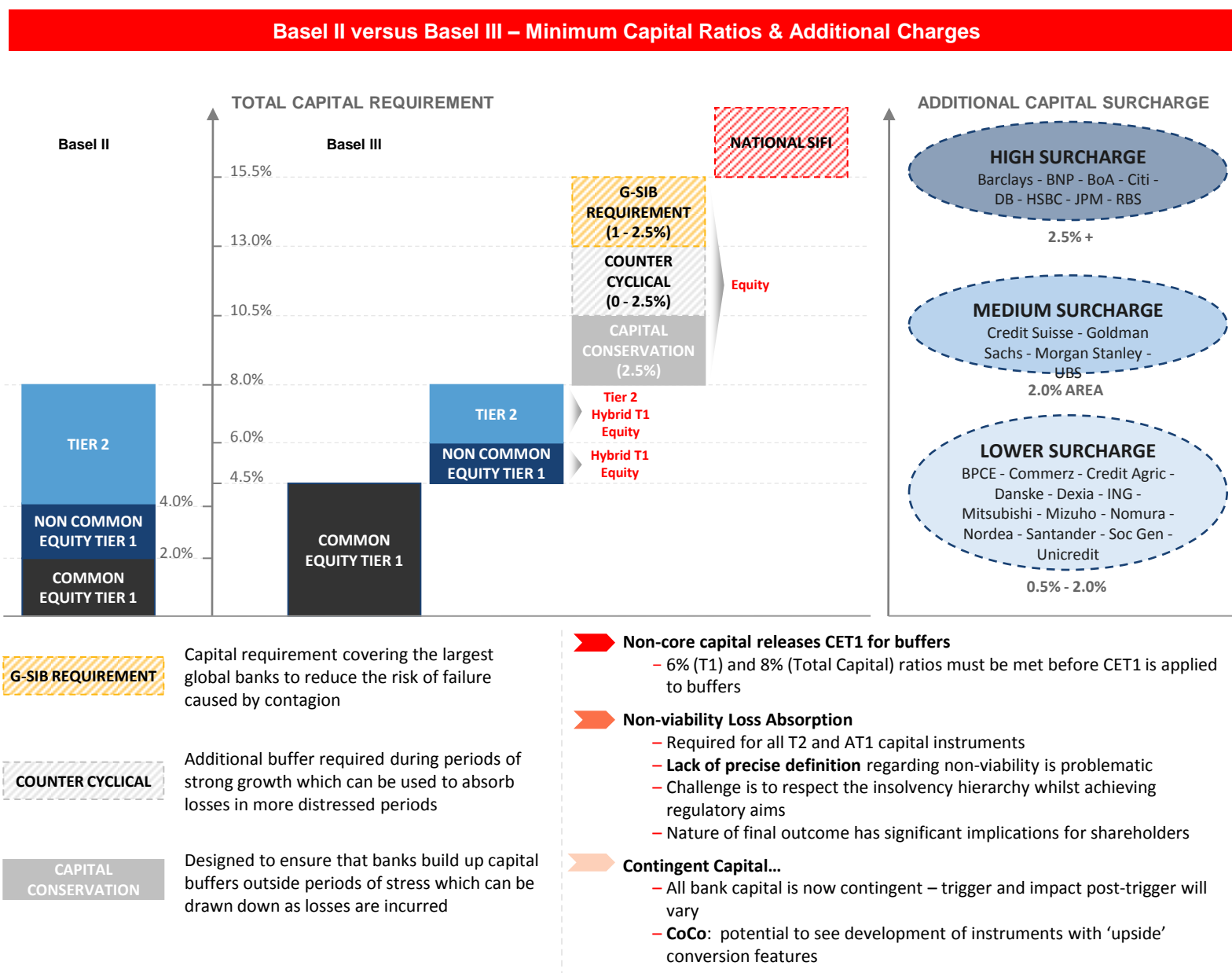


Basel III Implications for Capital Ratios

Under Basel III, regulatory capital will become a much greater constraint on bank activities as focus is shifted away from Tier 1 and Tier 2 capital towards more costly core Tier 1 capital

The proposal makes several adjustments to the definition of core Tier 1 capital, for example, excluding all hybrid forms of capital which are viewed as equivalent to subordinated debt, and no longer considering minority interests

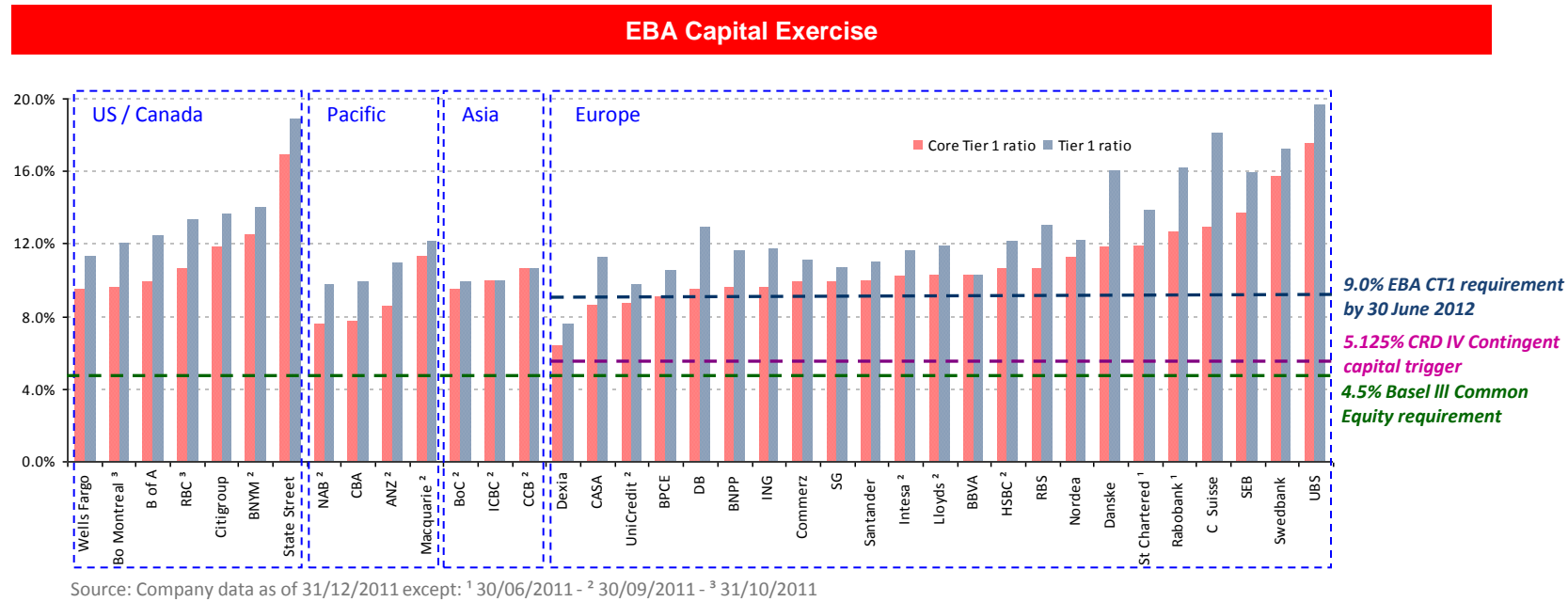
It is important to note that local regulators may overlay more stringent requirements than those currently set out by the Basel Committee



Bank Capital Positions Overview & EBA Shortfall

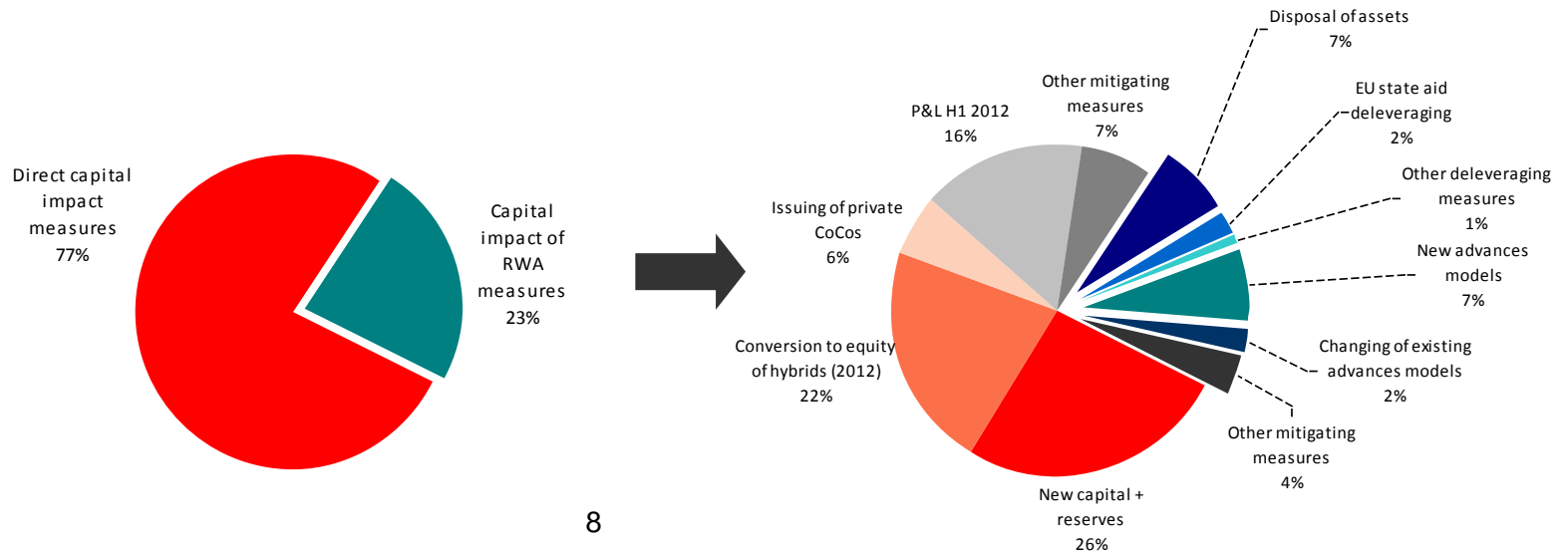
European banks initially faced a Core Tier 1 capital shortfall of EUR 115 billion after including the required sovereign buffer

After reviewing its assumption following the submission of European banks' plans to meet the 9% requirement, the EBA removed from the exercise 3 banks in a restructuring process *



How will European Banks Meet the EBA Requirements – Banks Recapitalization Plans

The final identified Core Tier 1 capital shortfall for European banks is EUR 78bn after removing Greek banks that will also be treated separately



* Dexia, Oesterreichische Volksbank and WestLB

Basel III Leverage Ratio (LR)

- Minimum Tier 1 Leverage ratio of 3%
- Non-risk based “backstop” measure based on gross exposure
- A countercyclical measure
- Constrains the build-up of leverage in the banking sector
- Disclosure from 01-01-2015

$$\text{LR} = \frac{\text{Basel III Definition of Tier 1 Capital}}{\text{Total On and Off-Balance Sheet Assets}} = \frac{\text{Capital: Tier 1 Capital (i.e. Core / Additional Tier 1 Capital) after deductions}}{\text{Assets: On-balance sheet items based on accounting value; Collateral, guarantees and other risk mitigations not subtracted from assets; Derivatives: accounting measure of exposure plus add-on (exposure can be netted); Off-Balance Sheet Items: Includes 100% of all Commitments, Guarantees, LCs}} \geq 3\%$$



Risky business, risky world

Bank funding and liquidity

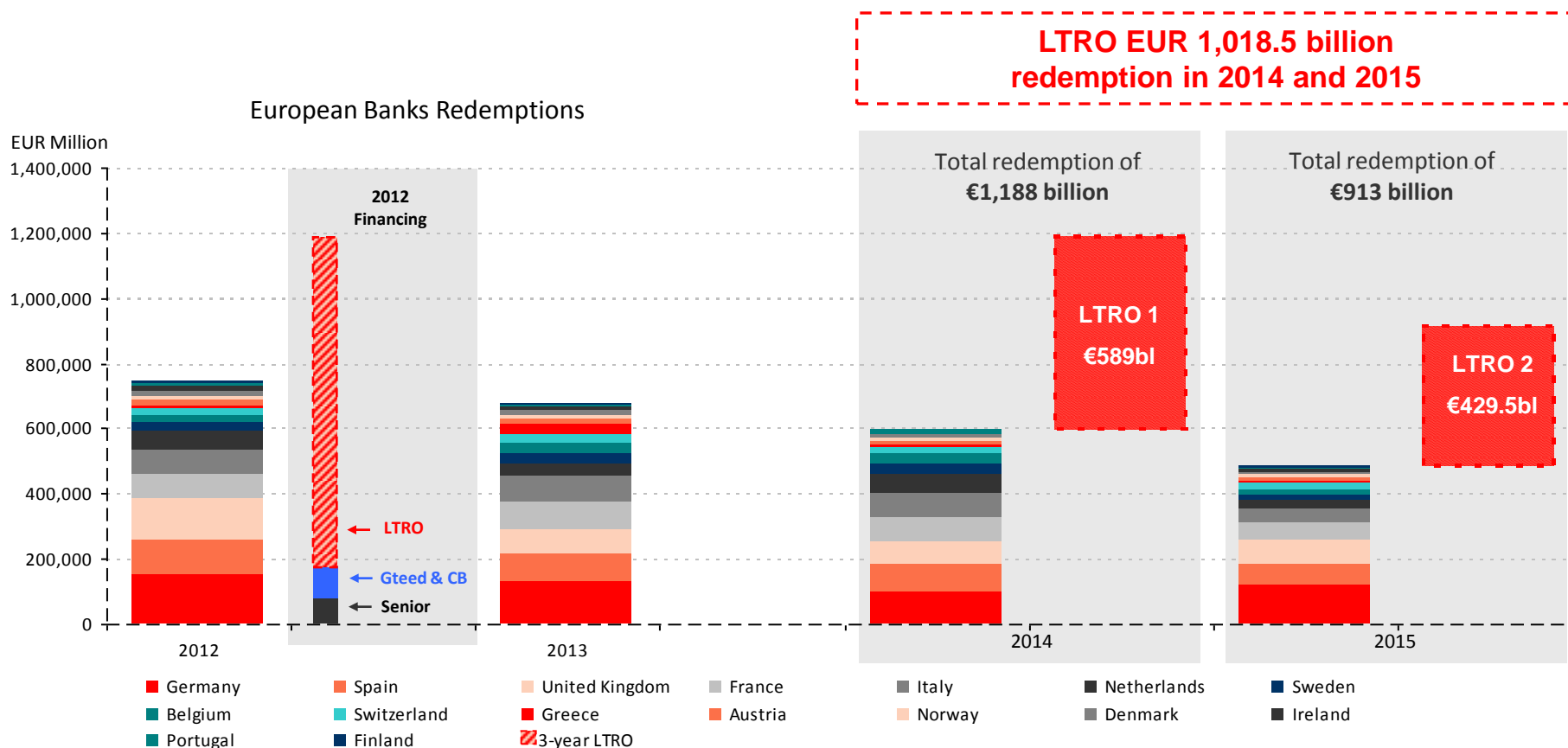
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The Funding Challenge Postponed Until 2015

- European banks borrowed c. 1 trillion to the ECB through its two 3-years LTRO operations in December 2011 and February 2012
- Most institution have covered their refinancing needs for 2012 and we saw a significant regain of market confidence in January with senior unsecured issuances including from peripheral borrowers



- Although funding pressures have been released in the short term, the refinance risk has been deferred as European banks will face similar issue in 2014-2015



Sources: Dealogic / Senior unsecured and covered bond for selected European countries

Basel III Liquidity and Funding Ratio

Liquidity Coverage ratio (LCR)

Short term

- Sufficient stock of high quality liquid assets to survive a 30-day acute liquidity crisis

$$\text{LCR (Minimum 100\%)} = \frac{\text{Stock of Eligible Assets}^*}{\text{30 day stressed net cash outflows}} = \frac{\text{Stock of Eligible Assets}}{\text{Stressed Outflows of:}}$$

- 5% Stable Retail Deposits
- 10% Other Deposits
- 75% corporate deposits due in 30 days
- 100% 30-day net wholesale redemptions

Net Stable Funding ratio (NSFR)

Long term

- Additional incentives to access more stable sources of funding on an ongoing basis

$$\text{NSFR (Minimum 100\%)} = \frac{\text{Available Stable Funding}}{\text{Required Stable Funding}} = \frac{\text{Capital, Term Debt, Deposits (haircuts), Long term liabilities}}{\text{Weighted Assets Based on Tenor and Fundability}}$$

* Stock of unencumbered high-quality liquid assets:

- "Level 1 assets" can be included without limit

Cash

Central bank reserves & Equivalent

AAA claims proven liable source of liquidity for the market

- "Level 2 assets" can only comprise up to 40% of the stock - a minimum haircut of 15% is applied to the current market value of each Level 2 asset

< AAA claims

Corporate & Covered bonds - not issued by a FI

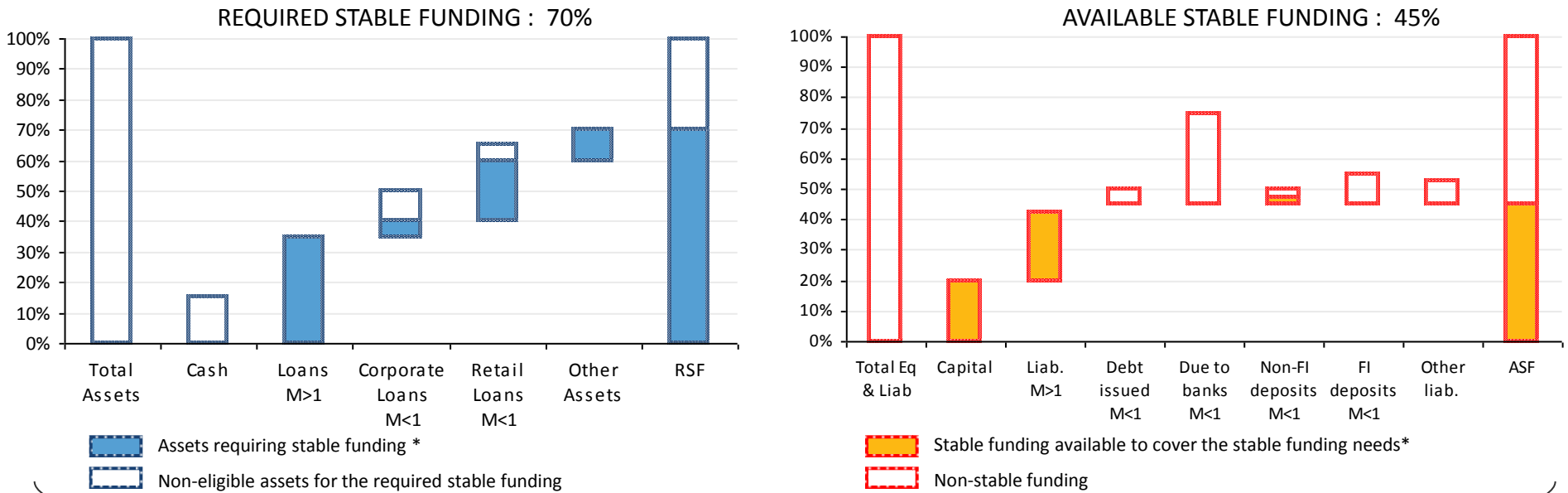
Non-exhaustive list

The Proposed NSFR Will Affect Banks' Funding Costs

- **Corporate banking is a larger “user” of banks’ stable funding resources:**

- Loan-to-deposits ratio over 100% will be financed with term debt
- Even short term retail loans require mostly (50%) long term funding
- Majority of Corporate loans are long term, requiring 100% stable funding; corporate deposits tend to be of short term, only **50%** of its nominal amount is counted as “Stable Funding”
- Undrawn committed liquidity facility need to be backed **fully** by liquid assets

EXAMPLE – Bank Net Stable Funding Mismatch (% Balance sheet)



Potential term mismatch and funding needs equivalent to 25% of the balance sheet

RSF=Required Stable Funding

ASF=Available Stable Funding

* Each asset or liability is assigned a category and multiplied by a predefined factor

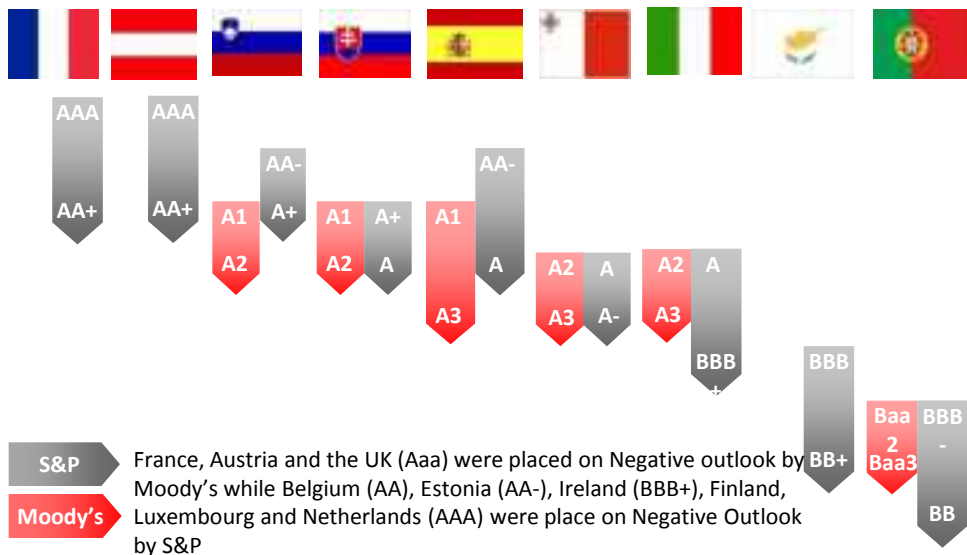


Risky business, risky world

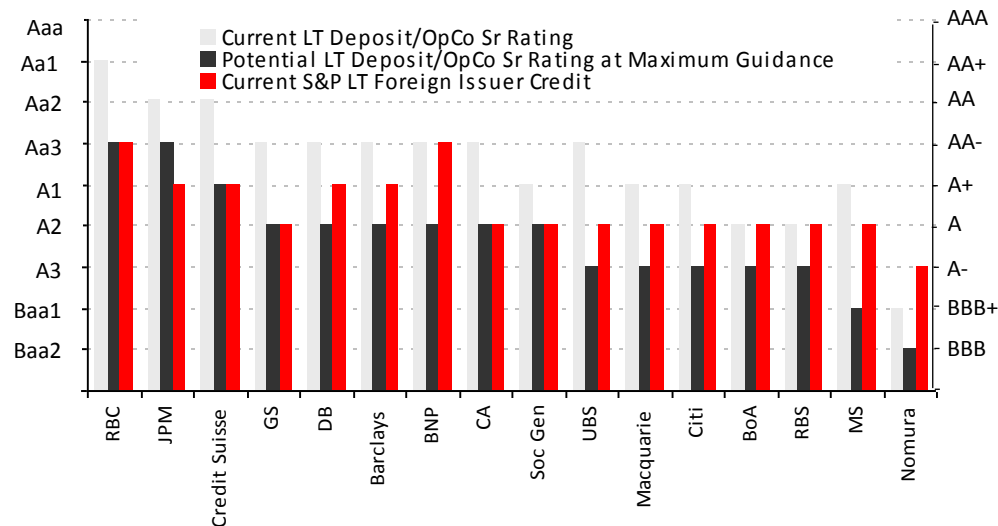
Bank ratings and regulatory stress testing

Rating Agencies' Downgrades

Sovereign Rating Actions 13-Feb-2012



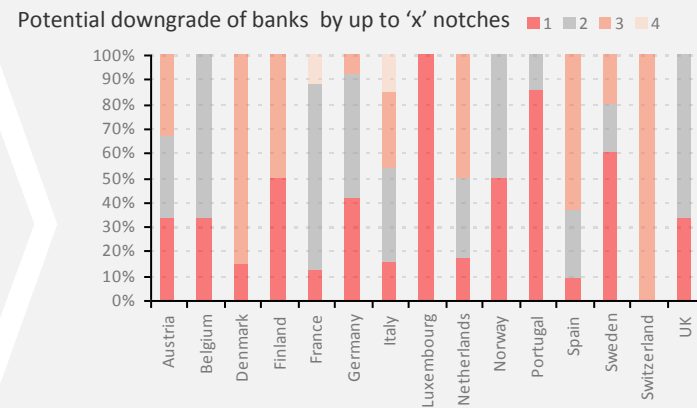
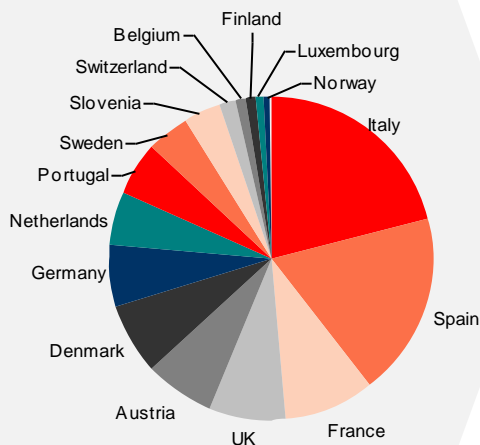
Moody's Rating Review of 17 Investment banks 15-Feb-2012



Moody's: "The 17th firm not on the chart is HSBC because its operating company ratings were not affected by this review. The guidance regarding its holding company is a downgrade of up to 2-notches to A1 from Aa2"

Moody's Rating Review of 114 European banks 15-Feb-2012

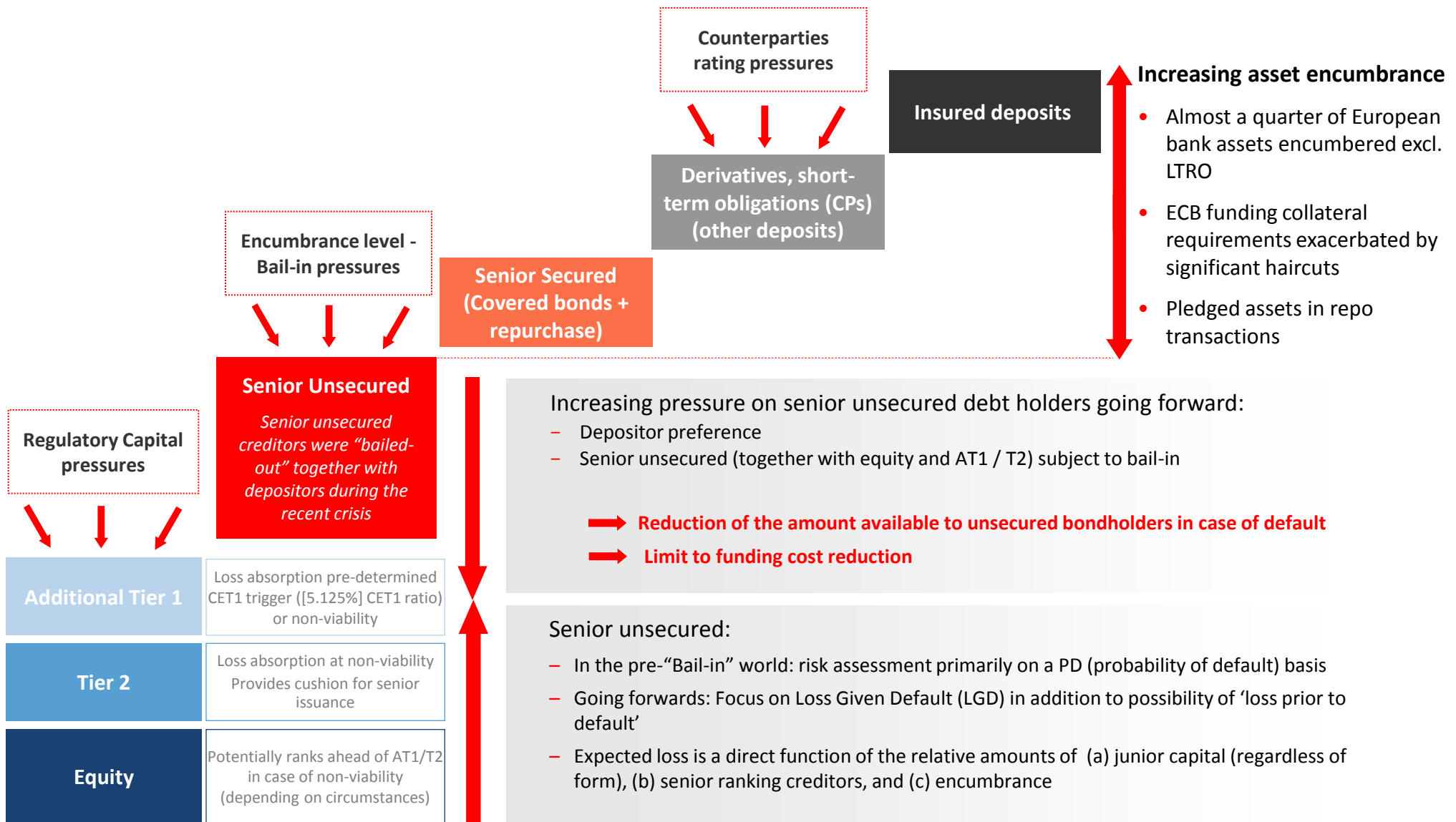
- ✗ Adverse and prolonged impact of the euro area crisis creating a difficult operating environment for European banks
- ✗ Deteriorating creditworthiness of euro area sovereigns
- ✗ Substantial challenges faced by firms with significant capital market activities
- ✓ Mitigating factors such as the currently supportive stance of many governments towards their banking systems and accommodative monetary policies



Nothing is not assessed for Slovenian banks

Creditors / Investors: How to Assess Risk

Bank Capital Structure





Risky business, risky world

Derivatives and bank capital

HSBC 

EC Proposals

Tracking the EU issues that are critical for corporate end users – the “tangled web”

Issue	Content of proposals	Potential impact on corporate end users	Timeline
OTC Derivatives Regulation (EMIR)	<ul style="list-style-type: none"> • OTC derivatives trades to be reported to central trade repositories which regulators will have access to. • Mandated clearing of "standardized" OTC derivatives through central clearinghouses. • Contracts entered into by non-financial firms below a 'clearing threshold' will not have to be cleared through a CCP. Those thresholds were not defined in the proposals. 	<ul style="list-style-type: none"> • Increased costs due to higher transaction costs required to cover dealer-incurred expenses (execution, clearing, margin financing) • Reduced liquidity of non-standardized contracts, which may also impact ability of end-users to apply hedge-accounting • Fiduciary duties of dealers may impede ability to enter into trades - less supply & wider bid/offer spreads • Potential increases in margining and collateral • Must avoid “clearing shock” past threshold 	Applicable end of 2012
Markets in Financial Instruments Directive (MiFID) – revision	<ul style="list-style-type: none"> • Broader inclusion of alternative trading venues, specifically broker crossing networks and potentially high frequency trading • Further trade reporting and transparency requirements – tightening of existing waivers • Inclusion of equity-like instruments, e.g. depository receipts, exchange-traded funds and exchange traded commodities and energy certificates. 	<ul style="list-style-type: none"> • Increase in capital if brought under scope of MiFID, e.g. commodities • Increased costs due to higher transaction costs required to cover trading venue incurred expenses of increased transparency. reporting requirements and conduct rules 	Applicable end of 2013 (E)
CRD IV	<ul style="list-style-type: none"> • Introduces capital charges related to a deterioration of a counterparty's credit profile as well as it's default risk (CVA add-on) • Pricing of derivatives reflects more closely CDS markets 	<ul style="list-style-type: none"> • Longer dated transactions lead to much higher charges • CVA hedging could lead to volatile CDS and funding spreads • Expected shift to use of bilateral CSAs 	Applicable end of 2012 (E)

CRD IV: Focusing on Counterparty Credit Risk

Two key changes to Credit RWAs in respect to end user derivatives

1. Credit Valuation Adjustment (CVA)

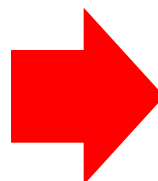
- New capital charge introduced on derivatives to cover mark-to-market volatility in counterparty credit spreads

2. Stressed Parameters

- Expected exposures on OTC derivatives calculated using stressed assumptions, including increased charges for “wrong way” risk

Impact on OCT Derivatives

	Description	Implications for Derivative Counterparties
Credit Valuation Adjustment (CVA)	<ul style="list-style-type: none">• Pre-Base 3: Capital charges only for default risk (and ratings migration)• Base 3: Introduces explicit capital charge add-on for CVA on all OTC derivatives transactions• CVA risk charge calculated using normal and stressed market assumptions	<ol style="list-style-type: none">1. Pricing of derivative transactions should now reflect both:<ol style="list-style-type: none">i) the cost of hedging CVA exposure (eg. CDS); andii) banks' required hurdle rate on incremental RWA under Basel 32. Longer dated transaction tenors lead to higher CVA capital charges3. Higher volatility in CDS leads to higher CVA capital charges





Risky business, risky world

The impact on the real economy and Corporate funding

HSBC 

Impact of Basel III: Theoretical RCF Pricing

Basel Capital Proposal Quantitative Example

\$100M BBB-rated Undrawn Corporate Commitment
Summary of implied costs

	Current	Proposed	Description
Tier 1 Capital			
Total Capital \$	\$2.26	\$2.61	Increased PD per Procyclicality proposal
Capital Cost %	8%	12%	Narrowing definition of Tier 1 Capital
Tier 1 Capital Cost bps	18.1	31.4	
Leverage Ratio			
Add'l Capital for Undrawn Portion \$	\$0.00	\$0.31	Undrawn amounts included in leverage ratio
Add'l Capital for HQ Assets \$	\$0.00	\$3.18	HQ Assets from liquidity ratio hit leverage ratio
Total Add'l Capital \$ (above Tier 1)	\$0.00	\$3.49	
Capital Cost %	8%	12%	
Leverage Ratio Capital Cost bps	0.0	41.9	
Liquidity Ratio			
Liquidity Reserve above Tier 1 \$	\$7.74	\$102.54	High Quality Assets required for 100% reserve
Cost of 1 yr Debt	0.50%	0.50%	
Liquidity Ratio Debt Cost bps	3.9	51.3	
Total Regulatory Cost of Lending	22	125	

Impact of Basel III: Theoretical Derivatives Pricing

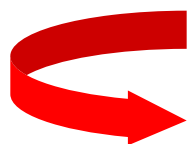
Pricing comparison for “BBB” rated client

		No CSA			Bilateral CSA/CCP
		10y Interest Rate Swap ¹	2y FX Forward	10y Cross Ccy Swap	
Current Market Practice	CVA Capital Charge ²	N/A	N/A	N/A	0bps
	Counterparty Capital Charge ²	7.2bps	4.8bps	10.6bps	0bps
	Funding ³	0bps	0bps	0bps	Uncertain
	TOTAL⁴	7.2bps	4.8bps	10.6bps	Uncertain
		10y Interest Rate Swap	2y FX Forward	10y Cross Ccy Swap	
Basel 3 Projections	CVA Capital Charge ²	9.7bps	10.7bps	23.3bps	0bps
	Counterparty Capital Charge ²	7.2bps	4.8bps	10.6bps	0bps
	Funding ³	0bps	0bps	0bps	Uncertain
	TOTAL⁴	16.9bps	15.5bps	33.9bps	Uncertain

1. Vanilla 10y USD IRS - Client receives Fixed, pays Floating; Client buys GBP, sells USD, 2yrs forward; 10y USD/GBP Cross Currency Swap – Client receives Fixed USD, pays floating GBP
2. Counterparty Capital charges are based on the following: *Return on Capital of 12% and Tier 1 Capital Ratio of 10%*
3. Expected cost of funding assuming symmetrical distribution of future potential exposure (ie. 50/50 probability of client posting/receiving funding through the derivative)
4. Excludes additional credit charges banks may impose for expected default risk

Impact of Basel III - Overview

	Bank impacts	Banks mitigants	Likely corporate impacts
Capital	<ul style="list-style-type: none"> Absolute increase in quantum of bank capital Higher capital charge for counterparty credit risk Equity predominant form of capital (also deductions) 	<ul style="list-style-type: none"> De-risking of bank balance sheet, focusing on most capital intensive business (e.g. risky exposure in trading books) <ul style="list-style-type: none"> - Reduction of CASA's ST debt: -26% (€45 bn) - Reduction of BNPP's b/s: -10% (€70 bn of weighted assets) Internal capital generation Cost cutting 	<ul style="list-style-type: none"> Pressure on pricing for corporate lending Intensified competition for corporate deposits and global transactions business (custody, payment and cash management and clearing operations) Increase of disintermediation Change of loans structure, general-purpose credit facilities (supposed to be fully drawn) may be replaced by dedicated credit facilities (drawn at 10%) Higher charge for derivatives transactions without collateral or not dealt through central clearing houses
Leverage	<ul style="list-style-type: none"> Constraint on overall balance sheet Constraint on off-balance sheet and contingent liabilities 		
Funding / Liquidity	<ul style="list-style-type: none"> Better quality capital instruments and exclusion of certain forms of hybrid capital – higher cost Net stable funding ratio aims to limit reliance on wholesale funding Greater demand for retail deposits More long-term funding Establishment of large liquidity buffers Demand for “sticky” deposits Demand for highest quality assets Life insurance cannibalize resources 	<ul style="list-style-type: none"> Cancelling commitments, full drawdown on credit lines offered to other FI Developing operation relationships with corporate depositors Holding more government bonds Term out funding, moving from a duration of less than 30 days to over 30 days Reorientation of flows from life insurance to bank deposits 	



- For **eurozone corporate borrowers**, funding costs could increase in aggregate by between **€30 bn and € 50bn**
- Between **€9 bn and €14 bn for US corporate borrowers**
- Representing an increase of between **10% and 20% over current interest costs for corporate borrowers** for Europe and the US, depending on banks' return on equity targets of 8% to 15%

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TURNING UP THE HEAT – THE NEW REGULATORY LANDSCAPE

ACT ANNUAL CONFERENCE
WEDNESDAY 18TH APRIL, 2012

DEMYSTIFYING THE REGULATORY LANDSCAPE

FOCUS ON CENTRAL CLEARING AND BASEL III

JOHANN KRUGER CA (SA), CFA
HEAD OF ACCOUNTING AND REGULATORY ADVISORY

Agenda

- OTC Derivatives: why are the regulators worried
- OTC Derivatives: what is happening?
- Effects on the wider business environment
- What does the UK industry say?

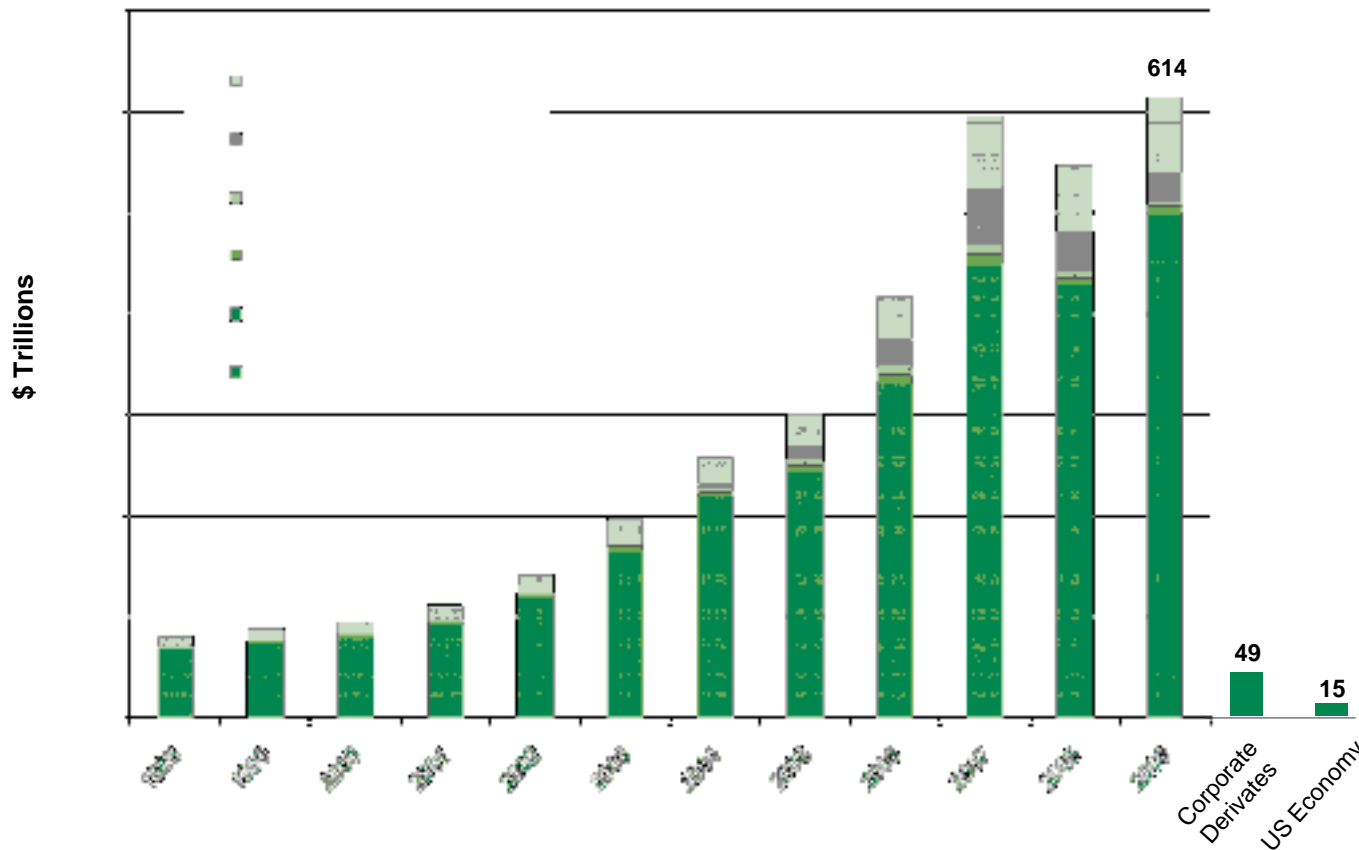
OTC DERIVATIVES: WHY ARE THE REGULATORS WORRIED?

... AND WHY IT SHOULD BE ON YOUR RADAR TOO!

Driver for OTC Derivatives Regulation

G20 focused on the role that Derivatives played in the financial crisis – in particular *AIG* and *Lehman Brothers*

Over-the-counter Derivatives Contracts (Notional amounts outstanding)



AIG SAGA SHOWS DANGERS OF CREDIT DEFAULT SWAPS
Financial Times, Mar 2009

TRANSPARENCY OF DERIVATIVES BECOMES KEY BATTLEGROUND
Financial Times, Mar 2010

LEHMAN EXPOSES RISKS IN CREDIT DEFAULT SWAPS
Financial Times, Oct 2008

A Permanent Structural Change in the Landscape

- Global derivatives reform: EU Market Infrastructure Regulation (EMIR) and Dodd-Frank Act reforms
- Basel III: new capital, leverage and liquidity regime plus G-SIB requirements
- MiFID II
- Bank resolution regimes
- National initiatives :
 - Vickers report,
 - Volcker rule (may affect all USD accounts and all banks doing business in the US)
 - Financial Transactions Tax, etc.

OTC DERIVATIVES: WHAT IS HAPPENING?

EMIR: Central Clearing

Key Themes

- Standardisation of derivative contracts – focus on central clearing
- Central clearing – Exchange or OTFs/SEFs
 - Likely corporate exemption
 - De minimis threshold for non-hedges (anti-avoidance)
- Trade Reporting – all trades

Where are we in the process?

- Initial proposals left many issues up to regulators (CFTC, SEC, etc)
- Likely phased approach from early 2013, by type of counterparty and contract
- Temporary uneven landscape
- Contracts must be capable of being cleared – currently only vanilla contracts
- Clearing houses gearing up, e.g. NDFs, interest rate swaptions

Which Services Will Banks Provide?

EMIR: Corporate End-User Impact

Derivative regulation will directly impact financial institutions, who must determine their response in the next 12-18 months. 'Non Financials' are largely exempt, but will be indirectly affected

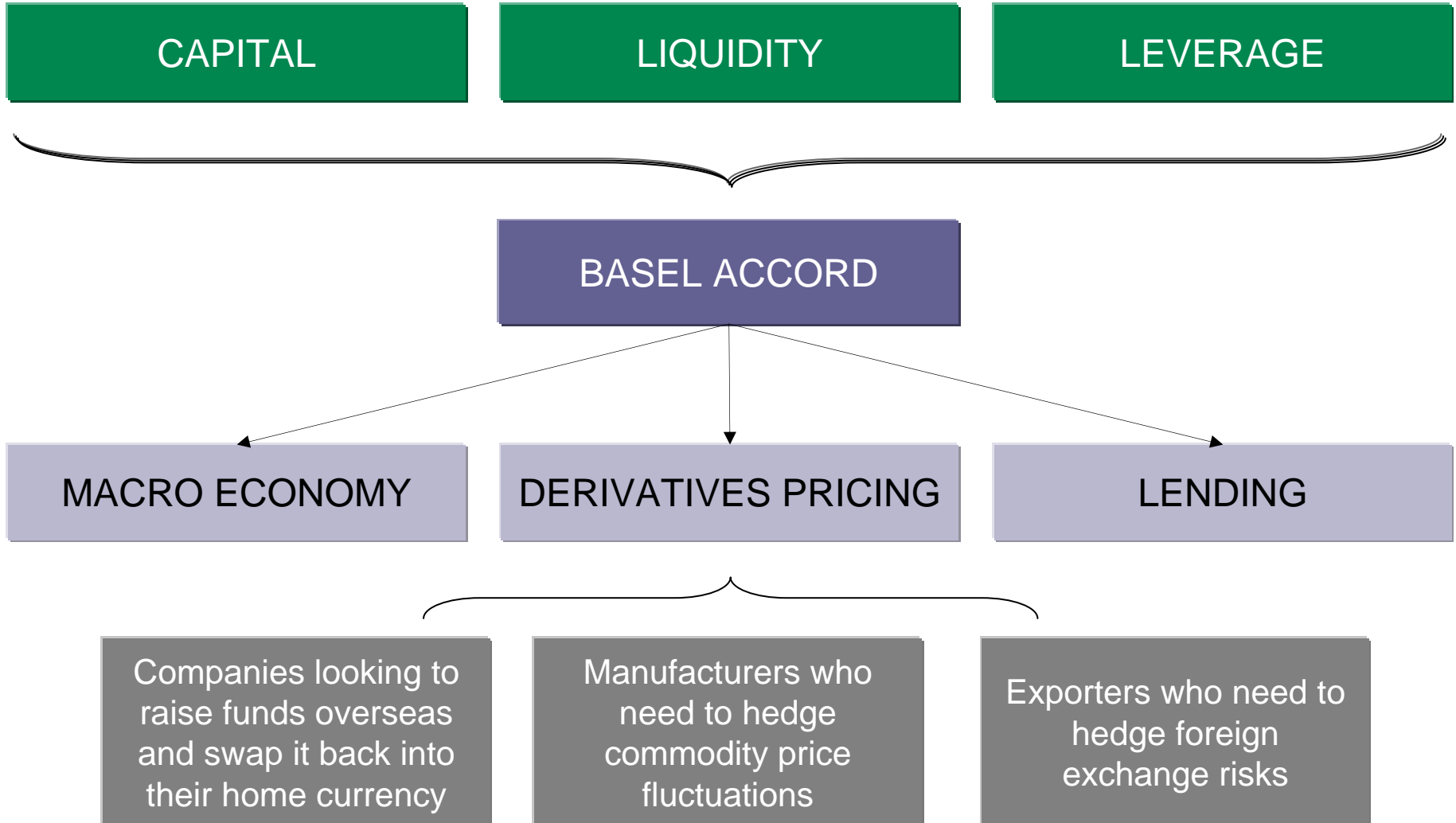
ADVANTAGES

- Largely exempt from regulations, but likely to be impacted indirectly by regulatory developments
- FX (Spot, Forward and Swaps) most likely to be exempt, but even if not, the corporate exemption takes precedence.
- Although not mandatory for corporates to exchange-trade (or centrally-clear derivatives), market dynamics may make this attractive in future:
 - Lower execution spreads
 - Reduced counterparty risk
- Can continue to use derivatives on an OTC bilateral basis and not obliged to centrally-clear

DISADVANTAGES

- Significant increase in capital cost for non-cleared OTC contracts under Basel III
- The change from bilateral to central-clearing reduces counterparty risk and capital charges, but may lead to increased costs from collateral, clearing fees and infrastructure investment, as well as wider bid/offer spreads, especially for large trades
- Significant incentive for Banks to reduce RWAs by moving OTC Derivative exposures to a collateralised or Cleared environment

The Effect of the Basel Accord on Corporates



LCR: Liquidity Coverage Ratio

- Pool of liquid assets sufficient to meet expected net cash outflows over a stressed 30-day period:
- *1 January 2015 ... BUT equity and debt analysts already prepare pro-forma full compliance numbers*

Liquidity Pool

- Must be run as a separate asset pool controlled by group treasury
- Must generally be central bank eligible
- At least 60% of the pool must be cash and sovereigns
- Remainder may be:
 - non-financial "plain vanilla" corporate bonds
 - covered bonds rated AA- and above
 - Both subject to 15% haircut
- Bonds must have proven marketability and stability

Stress Means

- Partial loss of deposits
- 3-notch ratings downgrade and resulting collateral calls
- 100% calls on committed liquidity facilities
- Loss of access to short-term money market
- Loss of all secured funding secured by non-governments

LCR: Use of Deposits by Banks

£ RAISED FROM SHORT TERM (< 30 DAY RESIDUAL MATURITY)	CAN FUND BUSINESS UP TO:	MUST GO IN LIQUIDY POOL UP TO:
Retail or SME insured deposits	£95	£5
Corporate Operational Account	£75	£25
Corporate Treasury	£25	£75
Interbank or Financial Institution Deposit	£0	£100

THIS IS WHY THE LIBOR CURVE IS SO STEEP (1M LIBOR LOW, VS 3M LIBOR HIGH)

Net Stable Funding Ratio – Effect on Lending

Assets not monetisable within one year must be covered by stable funding : 1 January 2018...
 BUT equity and debt analysts already prepare pro-forma full compliance numbers

ASSET	RESIDUAL MATURITY	
	LESS THAN 1 YEAR	MORE THAN 1 YEAR
Cash, money market instrument	0%	
Bonds		
Government bonds of AA and better with an active repo market	0%	5%
Corporate bonds of AA and better with an active repo market	0%	20%
Corporate bonds of AA- to A- with an active repo market	0%	50%
Other corporate bonds	0%	100%
Loans		
Loans to financial institutions	0%	100%
Loans to non-financial institutions	50%	100%
Loans to retail borrowers	85%	100%
Retail mortgages	65%	

Capital : Significant Increases in Requirements

- Quality of capital: what qualifies and what does not?
 - £1 of B2 capital = £0.60 of B3 capital
- Increase in total % capital required: up from 8% to 13% (potentially more)
 - Proportion of core equity up from 3.5% to nearer 10%
- Additional risk weights for uncollateralised OTC derivatives
- Key factors impacting the cost
 - Counterparty credit quality (lower rating; counterparties with no liquid CDS market) - no benefit is given to seniority in capital structure
 - Maturity
 - Type of instrument (Rates / FX / Commodities)
 - Expected exposure (market movements and funding position)

What can Treasurers do?

UNINTENDED CONSEQUENCES

- Costs for corporate hedgers could be prohibitive – especially accessing foreign capital markets
- Discouraging hedging by corporates, who represent less than 10% of the market volume
- Posting collateral and exposure to unacceptable levels of cash flow risk – putting the real economy at risk, and increasing cost of capital (both debt and equity)

POTENTIAL ACTIONS

- Cease to hedge
- Greater use of natural hedges
- Greater use of purchased options e.g. Caps/ Swaptions /Limited Liability Swaps
- Pay-as-you-go structures (e.g. inflation swaps)
- Credit breaks
- Variable costs clause dependent upon regs
- Lobby politicians
- If all else fails, collateralise or clear centrally (if possible)

To Clear or Not to Clear...

COMPANY ASSUMPTIONS

Working capital	£50m
Cash Yield	0.75%
Assets	£1,000m
Total Debt	£400m
Cost of 1Y Debt	2.0%
Cost of 5Y Debt	5.0%
Equity	£600m
Cost of Equity	10%
Tax	20%
ROE	10%
PBT	£60m
Undrawn Fee	0.50%

COST & CONTRACT ASSUMPTIONS

	X-Currency Swap (5Y)	Interest Rate Swap (5Y)	FX Forward (1Y)	Fuel Hedge (1Y)
Trade Size	£200m	£100m	£300m	£100m
Initial Margin	10%	3%	5%	8%
OTC Credit Charge	0.25%	0.08%	0.05%	0.25%

- Generic company with 40% debt to total assets
- 50% of debt is raised in foreign markets
- Remainder is 50% swapped to fixed
- Sizable FX exposure
- Hedges fuel costs through oil derivatives
- Should it pay additional Basel III costs, or should it opt for central clearing?

To Clear or Not to Clear...

BORROW EPE AT COST OF DEBT AND OBTAIN COMMITTED LINES FOR PFE

	COST TO PLACE ON EXCHANGE	COST DUE TO OTC CREDIT CHARGES	DIFFERENCE	MULTIPLE
1Y	£2.00m	£0.98m	£1.02m	x2
2Y	£2.14m	£0.98m	£1.16m	x2
3Y	£2.28m	£0.98m	£1.30m	x2
4Y	£2.33m	£0.98m	£1.35m	x2
5Y	£2.37m	£0.98m	£1.39m	x2

- Initial margin and variation margin required in cash
- Assume margin is financed through term money for XCCY swap and IRS; but with 1yr money for FX and commodity hedges
- Does not include cost differential of secured clearing house versus unsecured bank counterparty
- One can change the assumptions, but on balance clearing is likely to be more expensive financially:
 - Cost of carry of collateral, which must be readily available in case markets move
 - Potential higher financial risk may in itself push up the cost of equity and debt
 - ... and non-financially through the lingering concern about cash flow disruption caused by market dislocation

EFFECTS ON THE WIDER BUSINESS ENVIRONMENT

How Can Banks Meet the New Requirements?

Capital

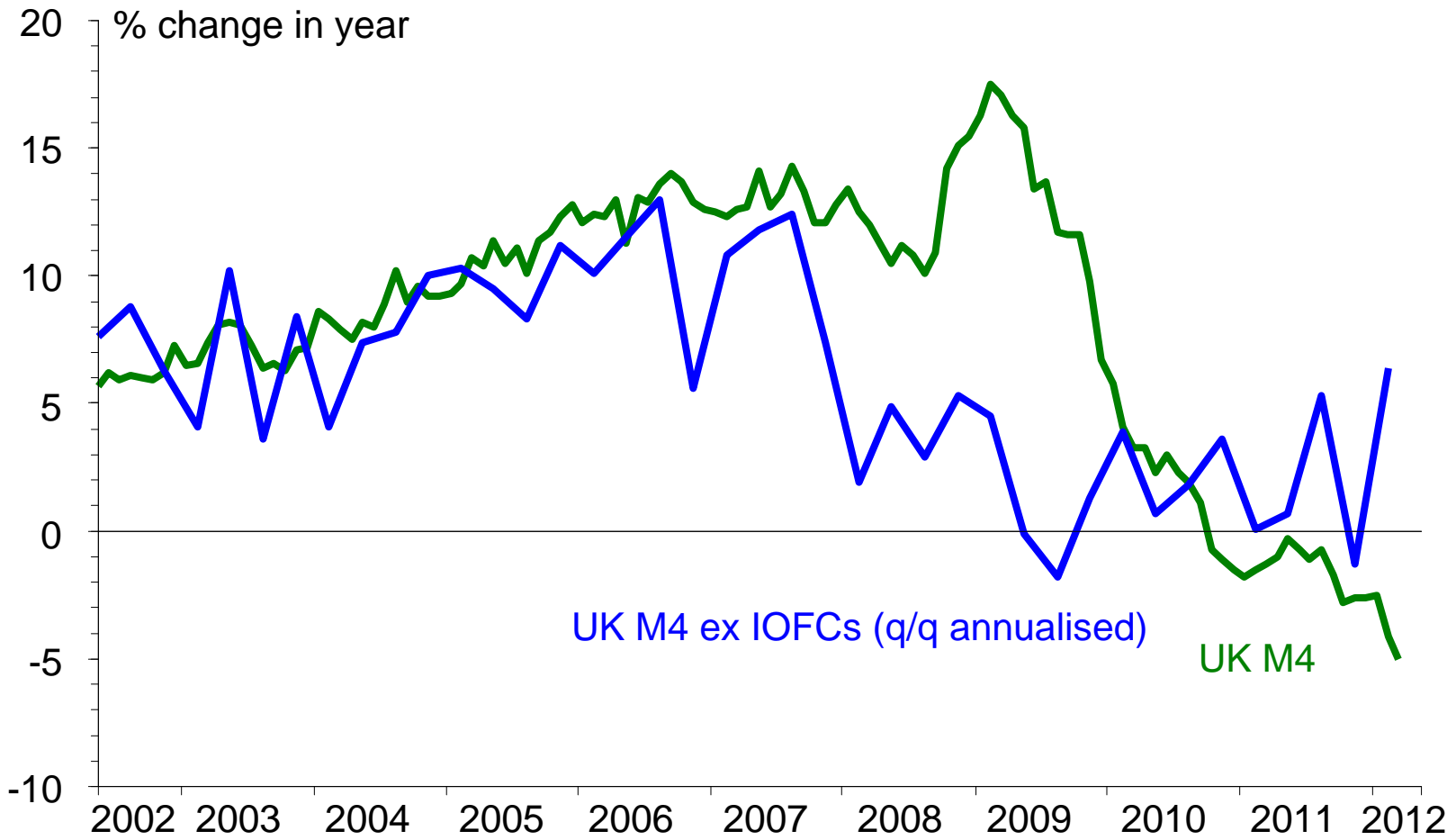
- Various alternatives
- Improving profitability
- Issuing equity is currently very costly
- Realigning balance sheet
- Pressure on banks' balance sheet size

Liquidity

- Various alternatives
- Improving cash flow
- Realigning balance sheet
- Pressure on banks' balance sheet size

MEANS EFFECTIVE MONETARY TIGHTENING WHEN WE NEED THE OPPOSITE

UK M4 Money Supply, % Change Y/Y



Underlying Credit Conditions Differ Significantly Across Major Western Economies

Euro Area: Bank Lending to Business



US and UK Bank Lending to Business

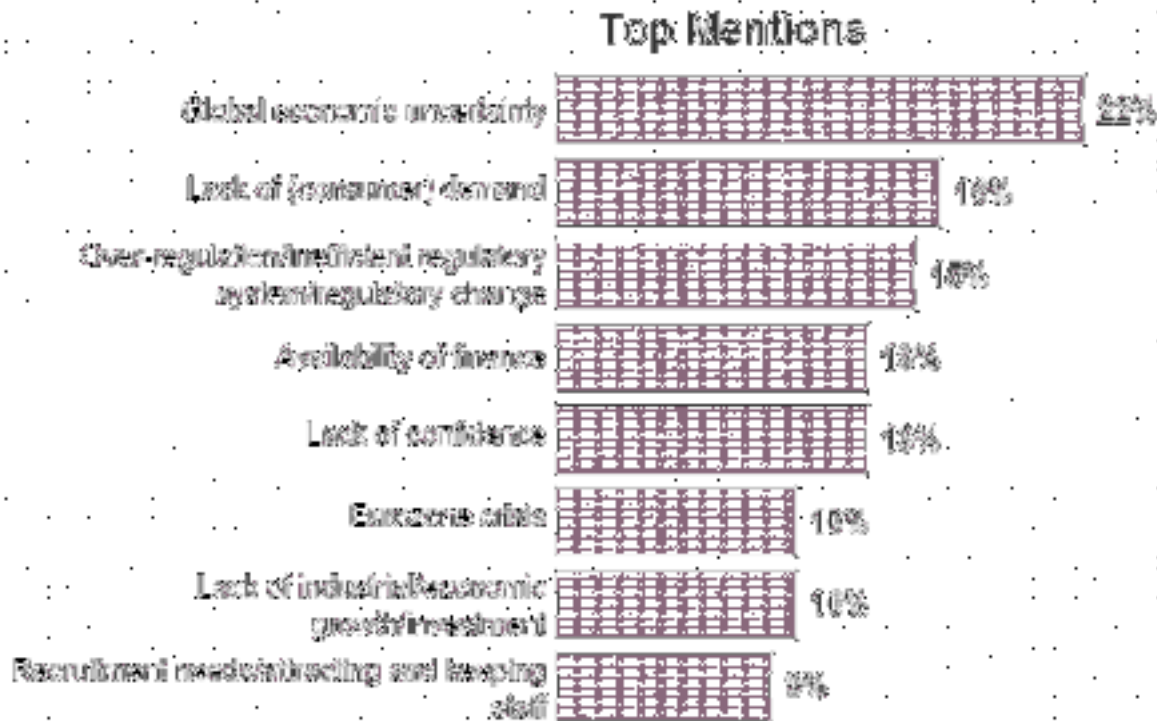


WHAT DOES UK INDUSTRY SAY?

Regulation – A Key Concern for UK Business (1)

ISSUES FACING COMPANIES

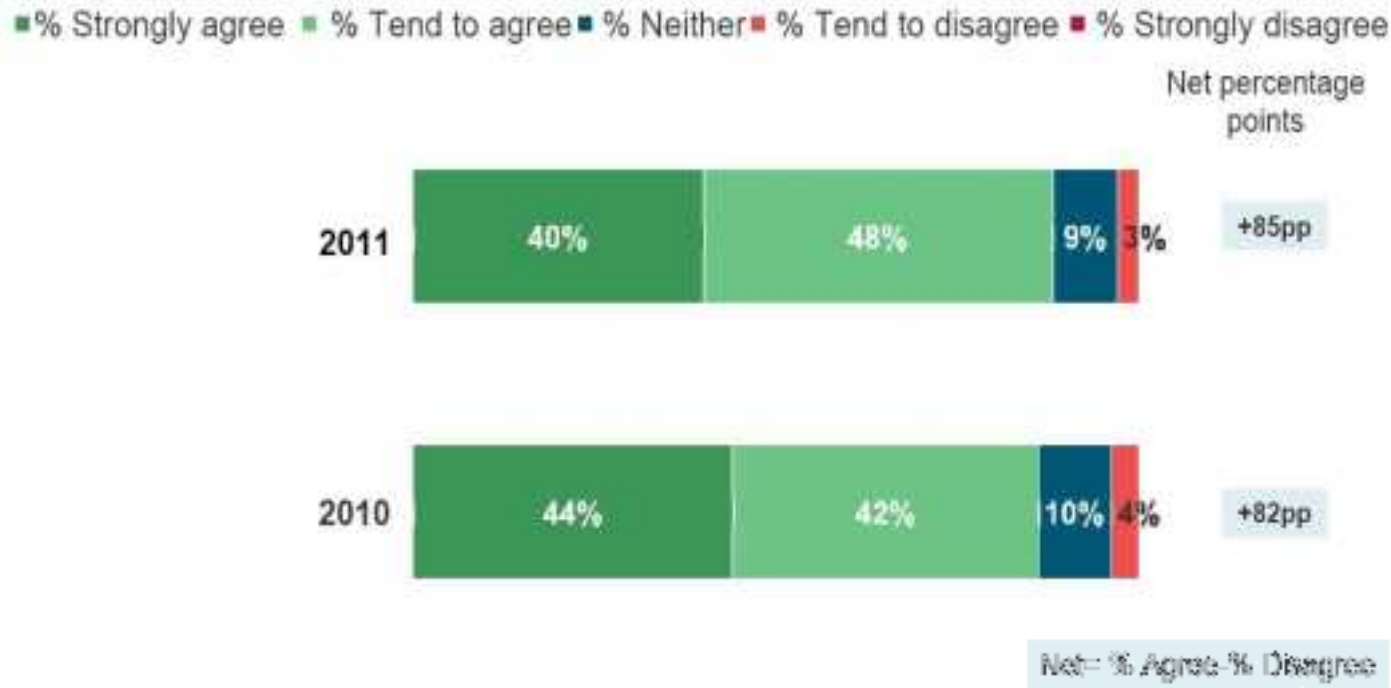
What do you see as the most important issues facing your company today?



Regulation – A Key Concern for UK Business (2)

REGULATION

To what extent do you agree or disagree with the following statement:
 ‘The level of regulation in the UK is harming the British economy’



Base: British Captains of Industry 2011 (100), interviewed Sep-Dec 2011
 Base: British Captains of Industry 2010 (102), interviewed Sep-Dec 2010
 Source: IPSOS MORI

Closing Remarks

- The new regulations are far reaching. They are game changers
- Those who try to wear blinkers will be found out
- There are two stages to responding:
 - while the regulations are being drafted – try to influence them for the better
 - once they are set – be wise in your approach – do your homework and make sure you end up with a winning solution for both you and your service providers
- Fully cost the effect of central clearing before taking the plunge

Presentation: Turning up the Heat - the New Regulatory Landscape
Key Regulatory Changes from a Treasurer's Perspective

Presentation by **Virgin Media**

Presented by **Rick Martin**, Group Director, Virgin Media

For attendees of the ACT Annual Conference, April 18, 2012

Turning Up the Heat – the New Regulatory Landscape

ACT Annual Conference 2012

Track H – 18th April



Agenda

- Key regulatory changes from a Treasurer's perspective
- Resultant issues facing Treasurers
- What is Virgin Media doing in response?
- What might our industry as a whole do in response?



Key regulatory changes

- Increasing capital requirements/limits to leverage
 - \$1.3 trillion additional Core Tier 1 capital needed by 2015
- Insistence on higher percentage of highly liquid assets
 - Must survive acute short-term stress for 30-day period, retaining High Quality Liquid Assets (HQLA) to offset such potential outflows
- OTC derivatives regulation
 - On average, more than doubling of risk-weighting for uncollateralised OTC derivatives
- Prospect of transaction taxes
 - Schaeuble pessimistic for prospects but, if implemented, could undo global integration of capital markets
 - Further impairment to efficient movement of capital?
- Increase in documentation burden
 - SOX writ large...



A common theme...

As a **personal** view, the changes on the previous slide run a high risk of once again proving The Law of Unintended Consequences

- Represent an emphasis on the prescriptive, as opposed to demanding greater transparency, where investors can make individual, informed decisions as to the risk-reward balance they seek, and the associated consequences thereof
- Net effect has been to reduce availability of debt funding, at increased cost, with the attendant misallocation of resources which inevitably results from such legislation – however well-intended
- ...And, despite government claims to the contrary, may be making the system riskier over the long-term



US Treasury points to the ostensible success of TARP...

TARP's bank programs have generated positive returns.

Funds disbursed and recovered under TARP bank programs, Through February 2012



The projected overall cost of TARP has fallen dramatically.

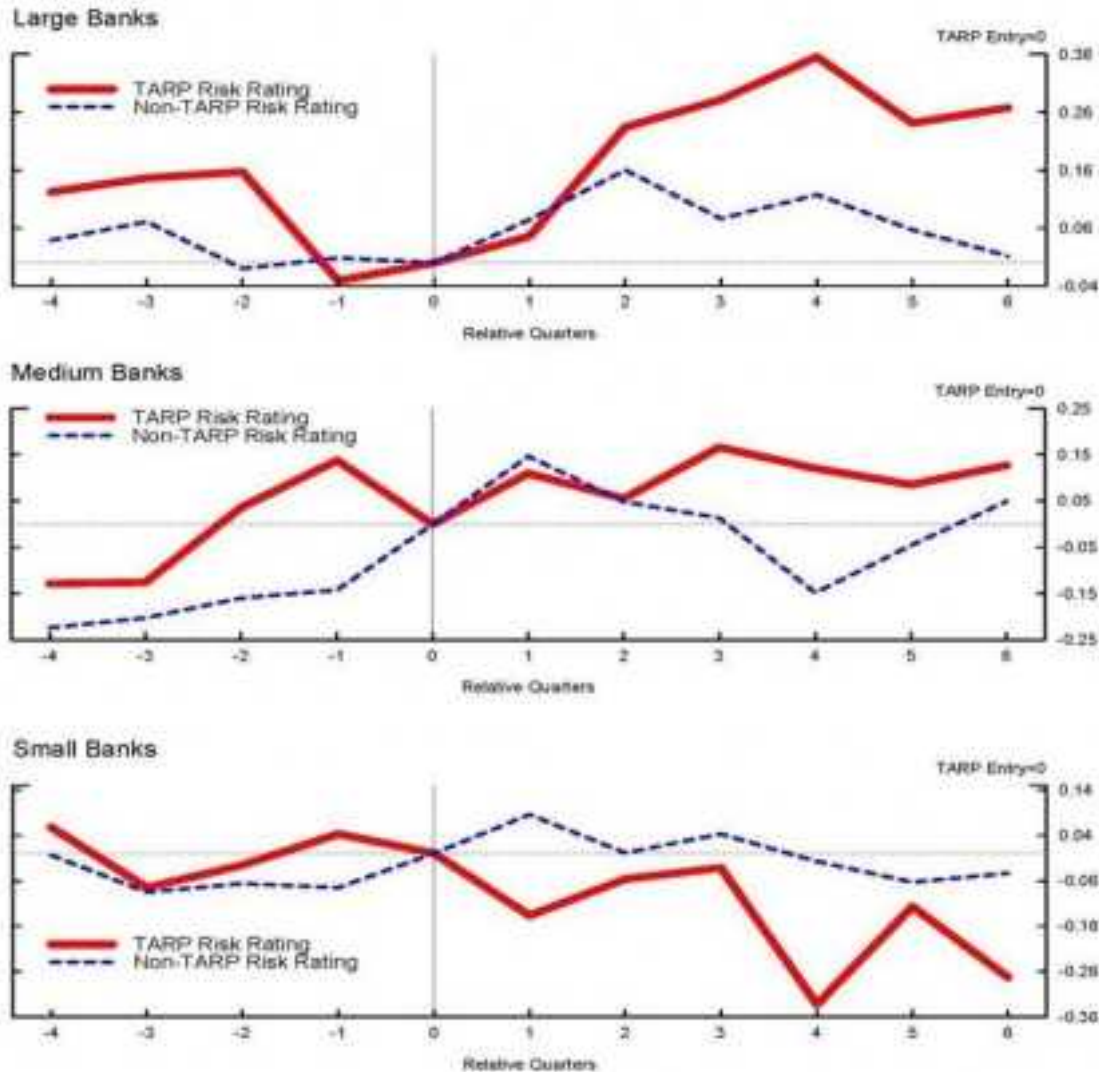
Estimated lifetime cost of TARP, by date of projection



* Unlike funds committed through TARP's investment programs, TARP funds targeted to help responsible homeowners avoid foreclosure were not intended to be recovered.

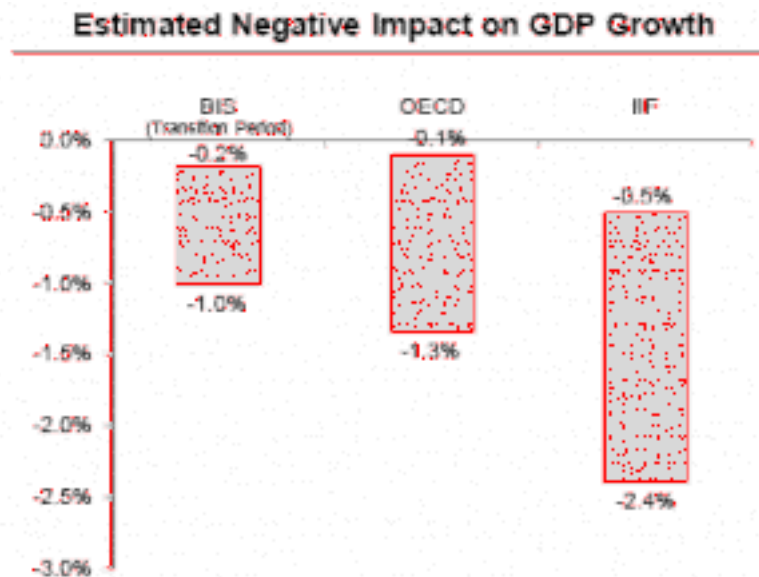


...even as the *Fed* suggests it *increased* the risk of loans made by large and medium-sized banks



Treasurers face issues on both the macro-level...

- Tighter fiscal policy – albeit with some relief in the form of looser monetary policy
- Slower economic growth (0.5-2.5% knock to GDP growth; IIF September 2011)



- According to various impact studies, the economic effects of Basel 3 can range from marginal to significant
 - Median estimate (~1% reduction in annual GDP growth) would have vast ramifications for global economy
- However, the net economic impact of Basel 3 should also take into account its potential economic benefits
 - BIS actually projects a net increase in GDP in the Long Run



...And the industry level...

- Shrinking balance sheets, especially for undrawn facilities
 - €1.6-3 trillion deleveraging in Europe across next couple of years, putting up to €1 trillion of funded loans at risk
- ECB LTROs should enable continued lending to the 'real economy' but will banks do so, or continue to redeposit such funds with the ECB, when confronted with:
 - Regulatory uncertainty, including but not limited to charges by type of capital allocated
 - Interaction of individual pieces of regulation
- Retrenchment to national borders
- Ever-tighter linkage between balance sheet and ancillary income
- Focus on defensive business models



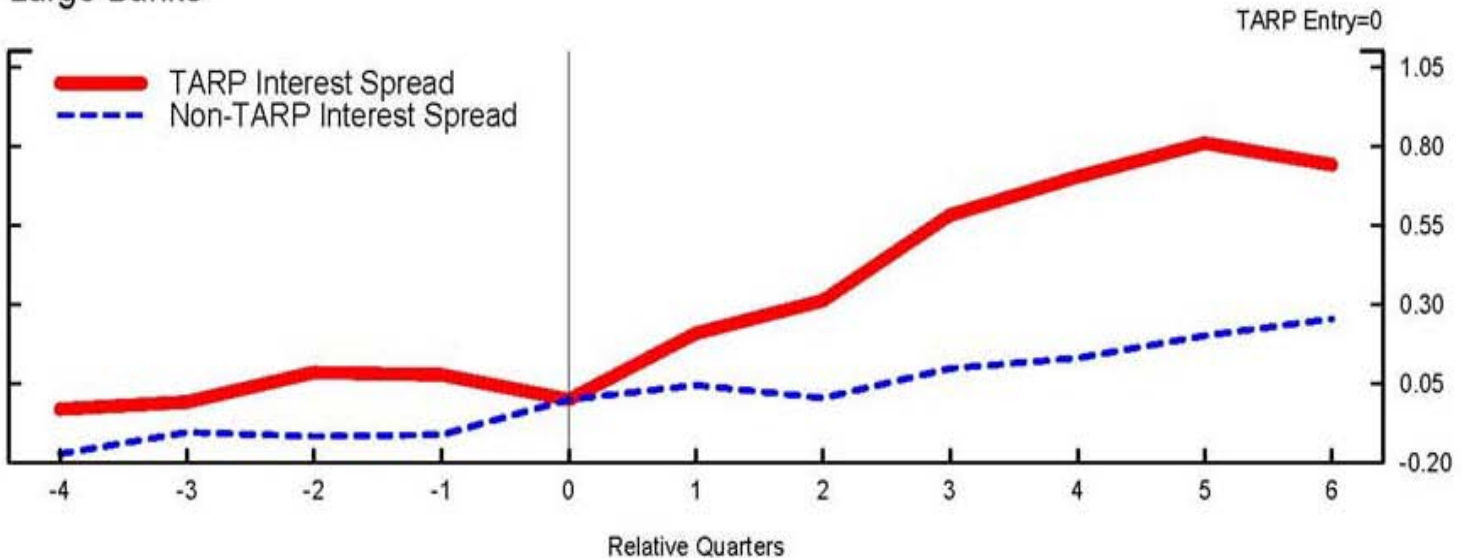
...Leading to the prospect of higher costs...

- Lending Spreads
 - Estimated increases range from 15-500+ bps, with IIF mid-range estimate of ~250 bps US/330 bps EU
- OTC/Credit Derivatives
 - S&P estimate 4-6x increase in credit-related charges for longer-dated trades
- Trade Finance
 - Material cost increase expected over Basel II capital requirements
- Hedge Funds
 - Prime brokerages 'preparing to hit clients with across-the-board increases in the cost of trading', possibly 'killing' trading in mortgage-backed securities, and causing convertible bond arbitrage 'to suffer'



...With a few of those unintended consequences already present, in the form of higher spreads

Large Banks



So, what is VMED Treasury doing in response to these changes?

At a strategic level:

- 'Playing what's in front of us' – whatever one thinks of QE, it has made money cheaper, and we have sought to capitalise thereon
- Remaining proactive – notwithstanding improvement in WAM and WACD over last few years, we continue further to improve our capital structure wherever it is economic to do so
- Steady progress toward public target of ~3x Net Leverage by mid-2013/associated cultivation of Rating Agencies – prudent policies, combined with 'no surprises' approach, expands cost-effective access to markets for a variety of purposes, thus reducing WACC as a whole
- Business model based on multiple sources of modest top-line growth, with relentless focus on ensuring high levels of conversion into robust FCF growth



And at a more tactical level...

Specific capital structure decisions also reflect these changes:

- Have adopted 'US model', with ~80% of gross debt (including undrawn £450 million RCF) in non-bank form
 - Average US corporate 70/30 capital markets/bank per Lloyds Bank
 - Per Fitch, only 36% of EMEA corporate bonds are issued by industrial companies compared with 68% in the US
- 'Playing' in wide range of debt capital markets – Bank, Finance Lease, SSB, HYD, and Convert; \$ and £
- Next Senior Credit Agreement – how might it be the same/differ from now, assuming we maintain a bank facility?
 - Continued geographic dispersion across US/UK/Europe likely preferred – but some European (and other?) banks seeking to retrench geographically?
 - Smaller number of banks? – to some extent, a function of changes in the industry; may also proactively seek to concentrate ancillary business with smaller group of lenders
 - High level of emphasis placed on areas of execution expertise aligned with predominant sources of expected non-bank funding likely continued



...With a continued backdrop of evolving counterparty risk

- Increased vigilance WRT counter-party risk – multiple methods; including dispersion of both cash balances and swap exposures across relatively strongest banks, evaluation of creditworthiness by varied metrics (CDSs, ratings), and ‘action triggers’ based on CDS levels
- Mutual break clauses in derivatives
- Allowing ourselves a degree of additional latitude in cash investments, seeking monthly average yields in excess of that offered by clearing banks – increased deployment of cash in (e.g.) AAA-rated money market funds



What might we do as an industry?

- Urge careful consideration of all stakeholders before moving to regulate, including thorough assessment of possible consequences as well as benefits, in a dynamic environment
- Seek to channel regulatory energies toward transparency, rather than prescriptiveness
- Support – through both time and direct funding – enhancement of financial acumen, ideally in partnership with government:
 - The importance of international trade
 - An end to the entitlement culture – whether for individuals, or for corporates
 - Incentives for success, which in turn enhances competitiveness



Selected sources

- 'Demystifying the Regulatory Landscape', Johann Kruger, Lloyds Bank, 25th January 2012
- 'The Road to Basel 3'; Tom Joyce, Michael Dyadyuk, and Javier Guzman; Deutsche Bank Capital Markets and Treasury Solutions, January 2012
- US Department of the Treasury, 'The US Economy in Charts', February 2012
- Board of Governors of the Federal Reserve System, 'The Effect of TARP on Bank Risk-Taking', March 2012
- Euroweek 2012 Outlook, Toby Fildes, '12 for 2012: What to Watch Out for in the Coming Year', January 2012
- 'Hedge Funds Face Higher Trading Costs', Sam Jones, Financial Times, 25th March 2012



Presentation: Accessing the Opportunities for Growth in China

The macro outlook, financial market structure, international comparative data

Presentation by **Goldman Sachs Asset Management**

Presented by **Anna Stupnytska**, Executive Director and Macro
Economist, Office of the Chairman, GSAM

For attendees of the ACT Annual Conference, April 16 to 18, 2012

Presented data have been assembled in March and April 2012.



Accessing the opportunities for growth in China

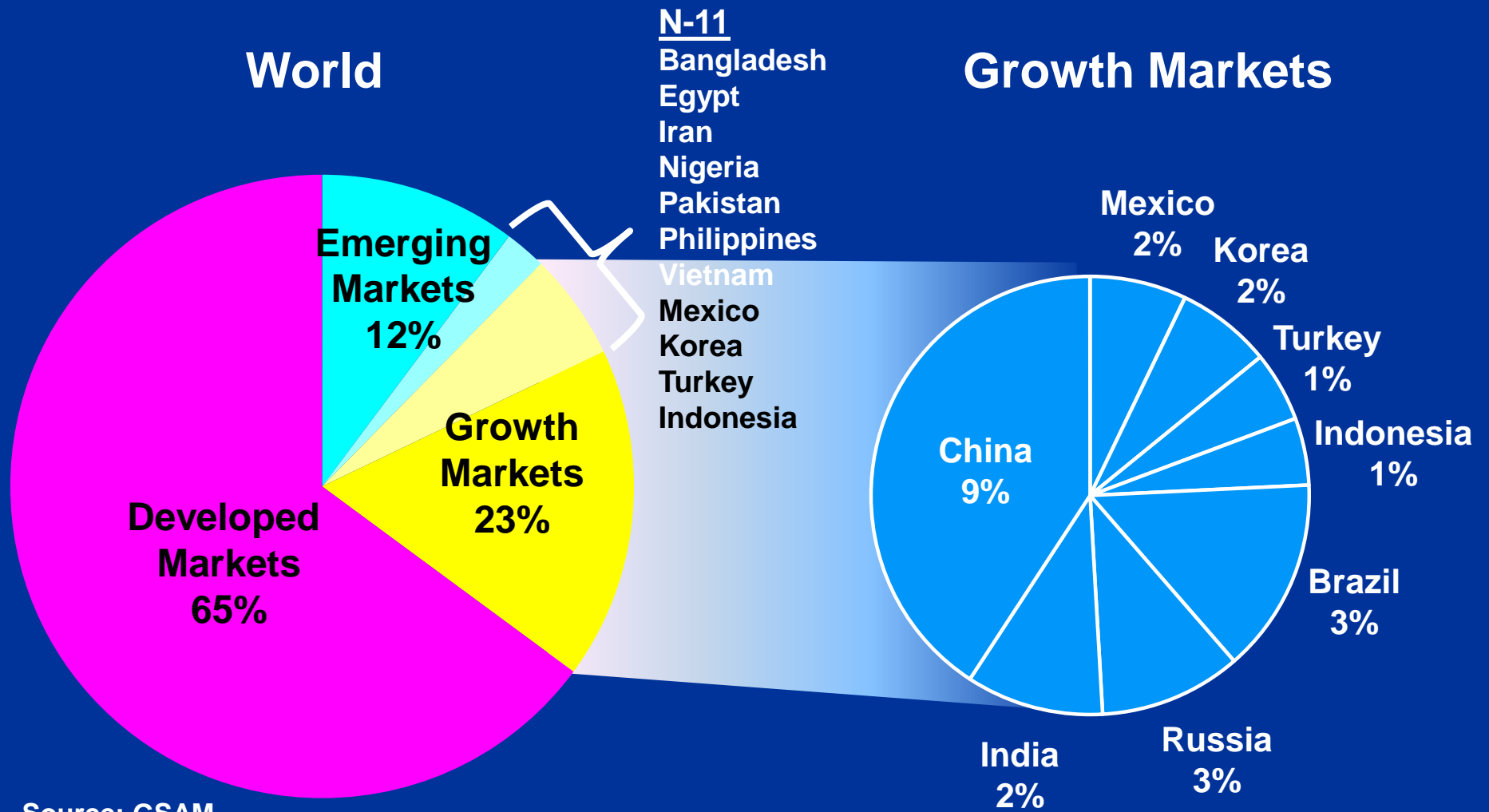
For attendees of the ACT Annual Conference,
16th-18th May 2012.



Setting the stage – the macro outlook for China

Anna Stupnytska, Executive Director and Macro Economist, Office of the Chairman, GSAM

Country Classification by 2010 GDP Share

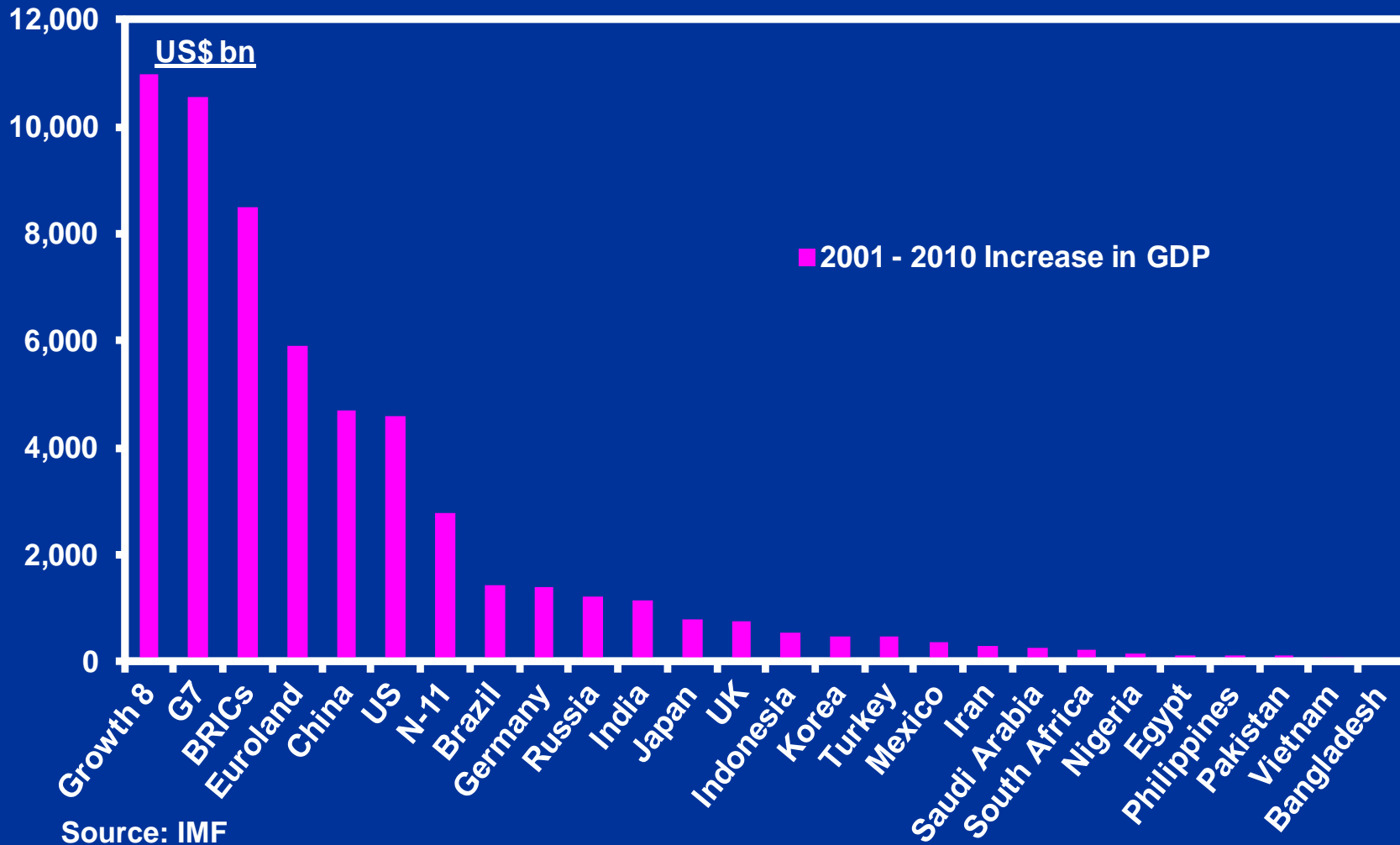


Source: GSAM

Some countries are no longer emerging—we call them Growth Markets

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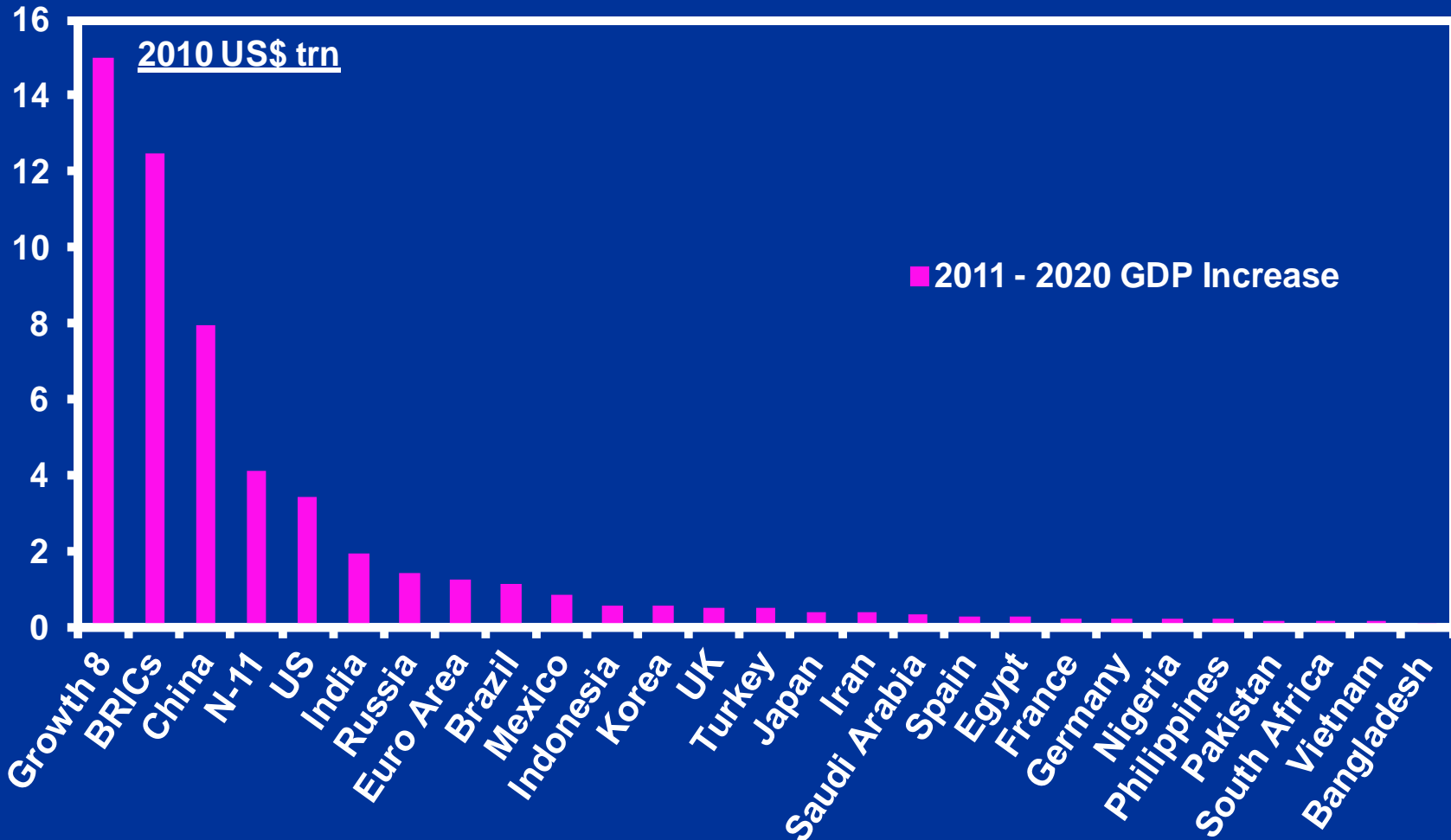
Change in US\$ Size of GDP from 2001 to 2010



Last decade China added more to global GDP than the US

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Change in US\$ Size of GDP from 2011 to 2020

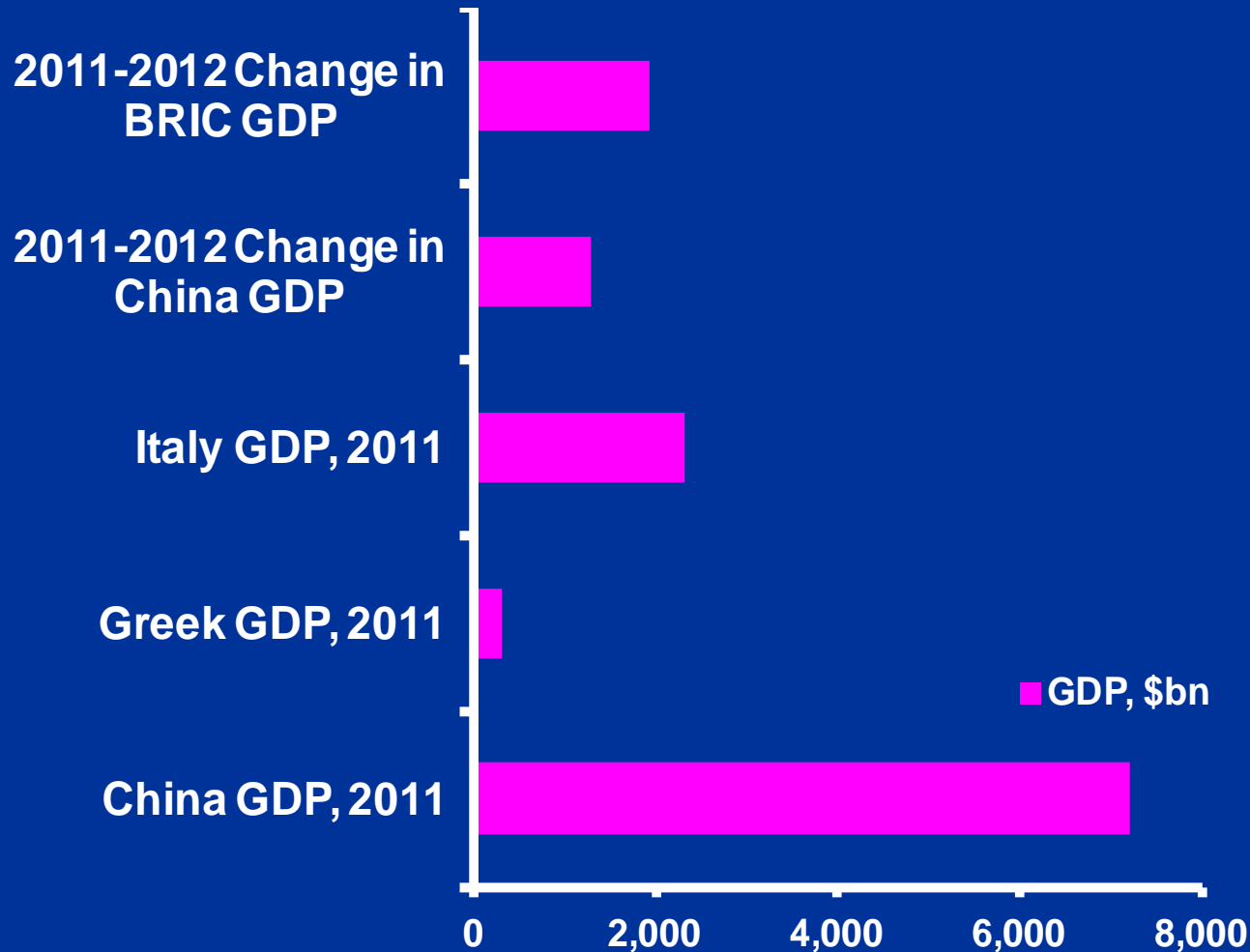


Source: GS Global ECS Research. GSAM Calculations

In the current decade China's contribution to global GDP could be larger than that of US and Euro area combined

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China vs European Periphery



Source: GS Global ECS Research and GSAM Calculations

This year BRICs can create another Italy

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Getting Conditions Right: The Growth Environment Score (GES)

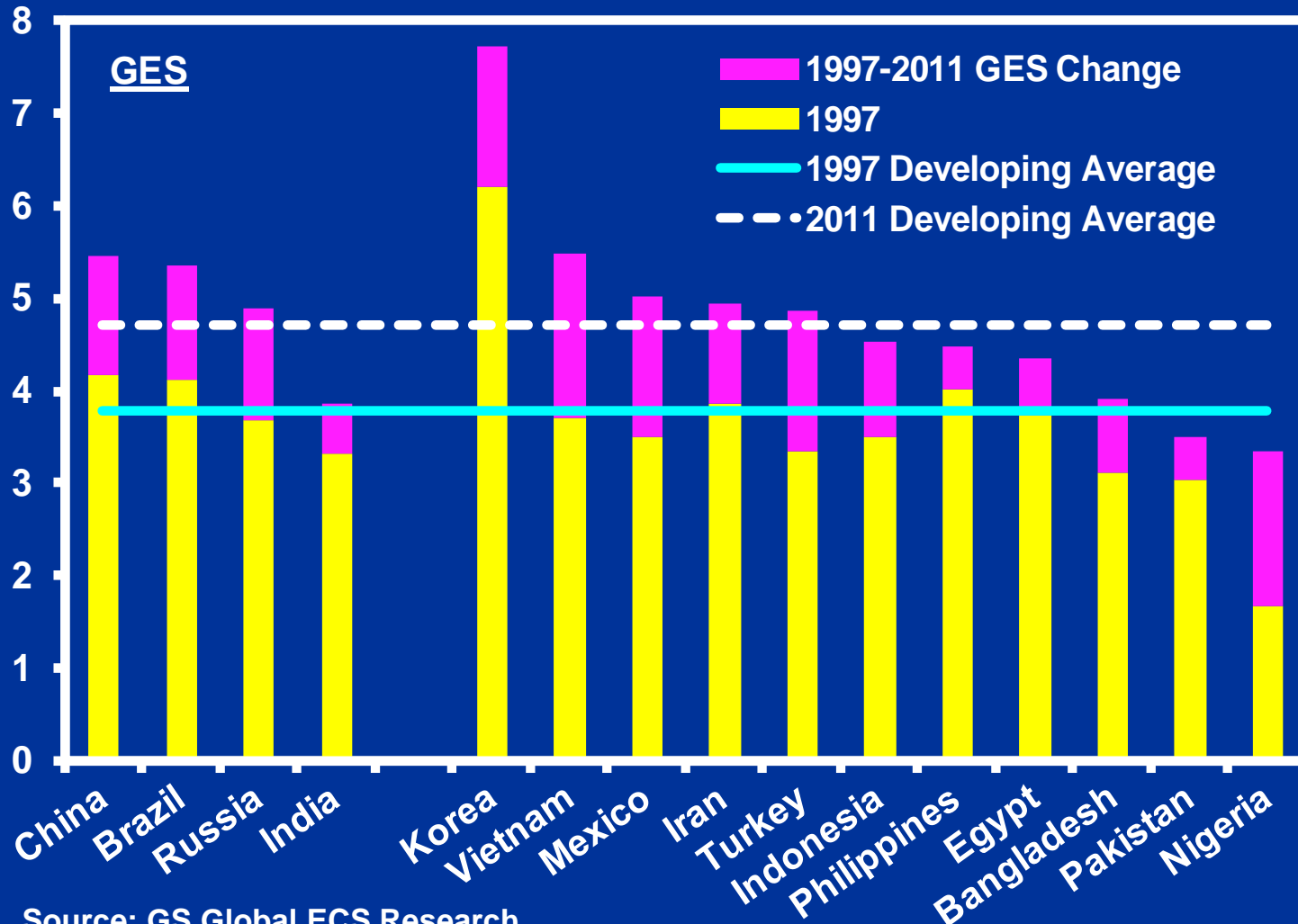
- **Political Conditions:** political stability, rule of law, corruption
- **Macroeconomic Stability:** inflation, government deficit, external debt
- **Macroeconomic Conditions:** investment rates, openness
- **Human Capital:** schooling, life expectancy
- **Technological Capabilities:** PC, mobiles, internet, servers
- **Microeconomic Environment:** patents, R&D, cost to start a business, urbanisation

Source: GS Global ECS Research

The GES helps us assess countries' abilities to realise their growth potential

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BRICs & N-11 2011 Growth Environment Score (GES)



China ranks highest of the BRICs on the GES

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GES for Growth Markets (and US)

	Korea	China	Brazil	Mexico	Russia	Turkey	Indonesia	India	United States
Headline	7.7	5.4	5.4	5.0	4.9	4.9	4.5	3.9	7.0
Rule of Law	7.0	4.3	5.0	3.9	3.4	5.2	3.7	4.9	8.2
Corruption	5.8	3.8	5.1	4.3	2.9	5.0	3.5	4.0	7.5
Political Stability	5.9	4.5	4.3	3.1	2.5	2.4	2.7	3.1	6.8
Government Deficit	5.8	3.8	3.6	2.8	3.2	3.6	4.4	0.8	0.0
Inflation	10.0	10.0	9.7	9.9	9.2	8.7	9.7	7.8	9.7
External Debt	..	9.3	8.6	8.4	7.5	6.3	7.5	8.5	..
GFCF	5.7	9.1	3.7	4.0	4.4	3.7	6.4	5.9	2.9
Openness	4.7	3.6	1.8	3.7	2.3	2.6	2.8	2.7	2.0
Life Expectancy	9.1	7.6	7.6	8.3	6.7	7.7	6.7	6.0	8.6
Schooling	9.5	6.5	8.0	6.7	7.3	7.1	6.1	4.7	8.9
Mobiles	9.8	5.6	9.0	7.5	10.0	8.7	6.7	4.5	8.9
Computers	10.0	0.7	2.1	1.9	1.7	0.8	0.3	0.4	10.0
Internet	10.0	3.3	4.5	3.0	3.4	4.2	1.0	0.6	9.0
Servers	5.1	0.0	0.2	0.1	0.1	0.4	0.0	0.0	10.0
Patents	10.0	1.6	0.8	0.8	1.8	0.3	0.1	0.2	9.9
R and D	8.0	3.7	2.7	0.9	2.6	2.1	0.2	2.0	7.1
Cost of Business	8.5	9.6	9.3	8.8	9.7	8.3	7.9	4.4	9.9
Urbanization	9.1	5.0	9.6	8.6	8.1	7.7	6.0	3.3	9.1

Source: GS Global ECS Research

China has already succeeded in a number of growth areas but more progress is needed

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GDP Forecasts

	2010	2011*	2012		2013	
			GSAM	Consensus	GSAM	Consensus
US	3.0	1.7	2.5	2.3	2.5	2.6
UK	1.4	0.9	1.0	0.6	1.8	1.8
Canada	3.2	2.4	2.2	2.1	2.5	2.3
Euroland	1.8	1.6	-0.4	-0.4	1.0	0.8
Japan	4.0	-0.8	1.9	1.9	1.3	1.5
Brazil	7.5	3.0	3.6	3.3	5.0	4.4
China	10.3	9.2	8.2	8.4	8.0	8.6
India	10.1	6.9	7.2	6.8	8.0	7.2
Russia	4.0	4.2	4.0	3.7	5.0	3.8
Mexico	5.4	3.9	3.6	3.4	3.8	3.4
Korea	6.2	3.7	3.4	3.1	4.8	3.9
Indonesia	6.1	6.4	6.0	6.0	6.1	6.4
Turkey	8.9	8.5	3.0	2.0	5.0	4.8
Advanced	2.9	1.3	1.4	1.2	1.8	1.8
BRICs	8.9	7.5	7.0	7.0	7.4	7.3
Growth Markets	8.3	7.0	6.4	6.3	6.9	6.8
World	5.1	3.8	3.6	3.5	4.1	4.1

* Consensus Economics. Data as of March 2012.
Source: GSAM and Consensus Economics

We expect a soft landing in China, with focus on quality rather than quantity of growth

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Inflation Forecasts

	2009	2010	2011*	2012*	2013*
US	1.9	1.7	3.2	2.3	2.0
UK	2.1	3.4	5.3	3.1	2.6
Canada	0.8	2.2	2.9	2.0	1.9
Euroland	0.9	2.2	2.6	2.1	0.8
Japan	-1.7	-0.4	-0.3	-0.2	0.0
Brazil	4.3	5.9	6.5	5.3	5.2
China	0.7	4.7	5.4	3.3	3.7
India	15.0	9.5	8.3	8.4	7.0
Russia	8.8	8.8	6.8	6.6	6.1
Mexico	3.6	4.4	3.2	3.8	3.7
Korea	2.8	3.5	4.4	3.2	3.1
Indonesia	2.8	7.0	5.4	5.2	5.3
Turkey	6.5	6.4	6.3	9.1	6.6
Advanced	1.1	1.7	2.7	1.9	1.4
BRICS	5.2	6.4	6.3	5.0	4.8
Growth Markets	4.9	6.1	6.0	5.0	4.7
World	2.6	3.5	4.1	3.3	2.9

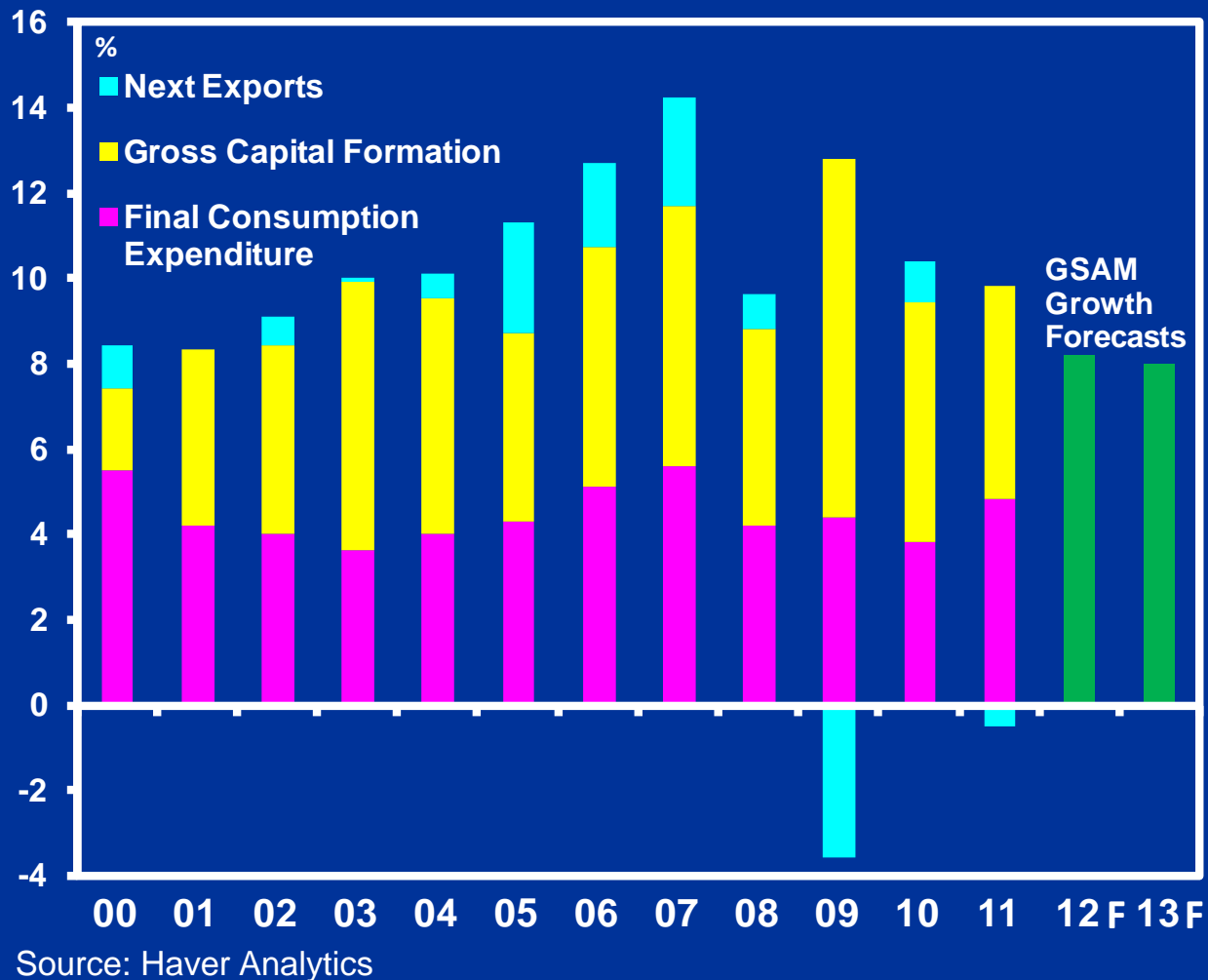
* Consensus Economics March 2012

Source: IMF and Consensus Economics

Benign inflation environment globally creates scope for more proactive monetary policy easing

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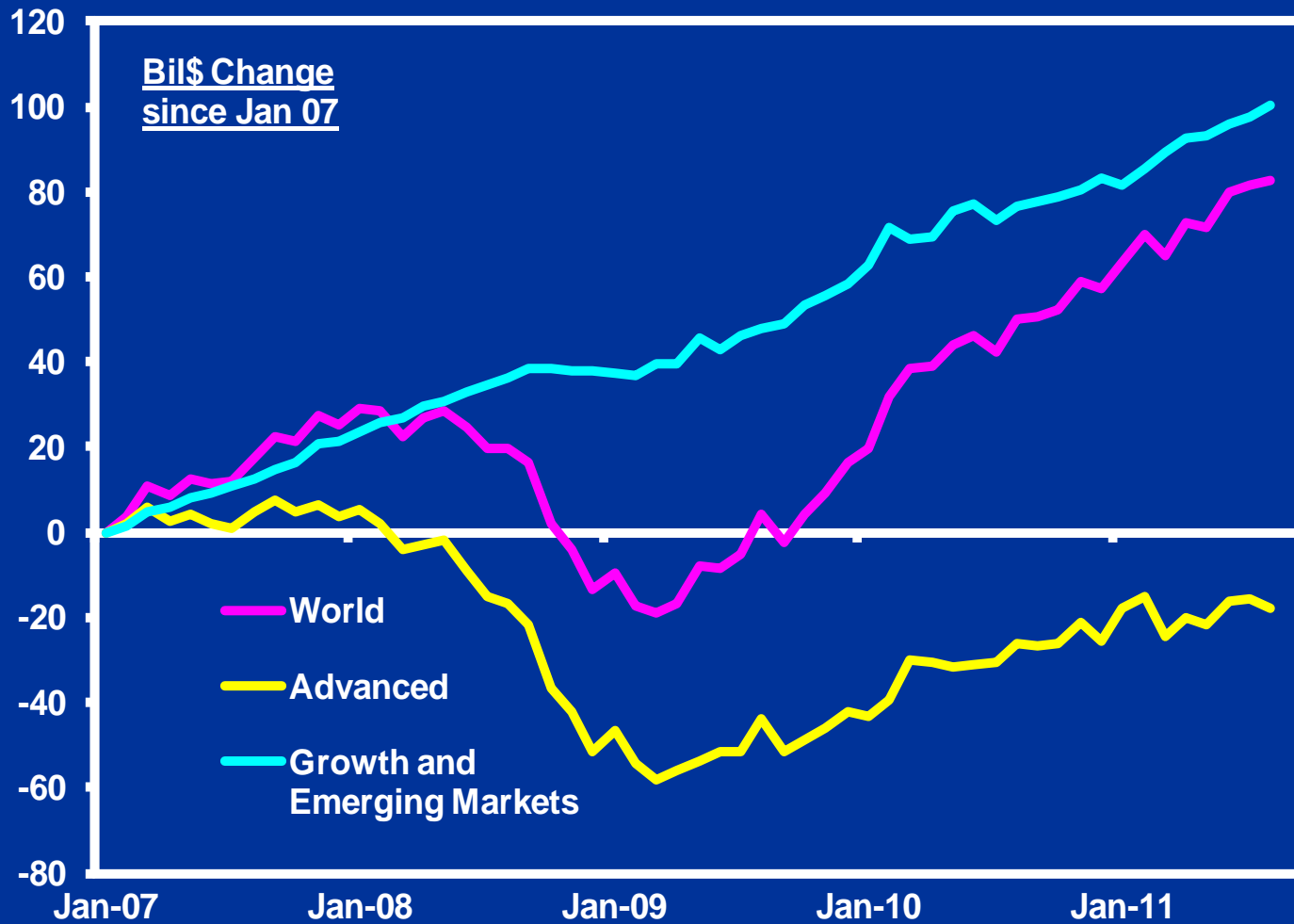
GDP Growth Drivers



A shift towards consumption in China has been pronounced since the crisis...

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Change in Real Retail Sales

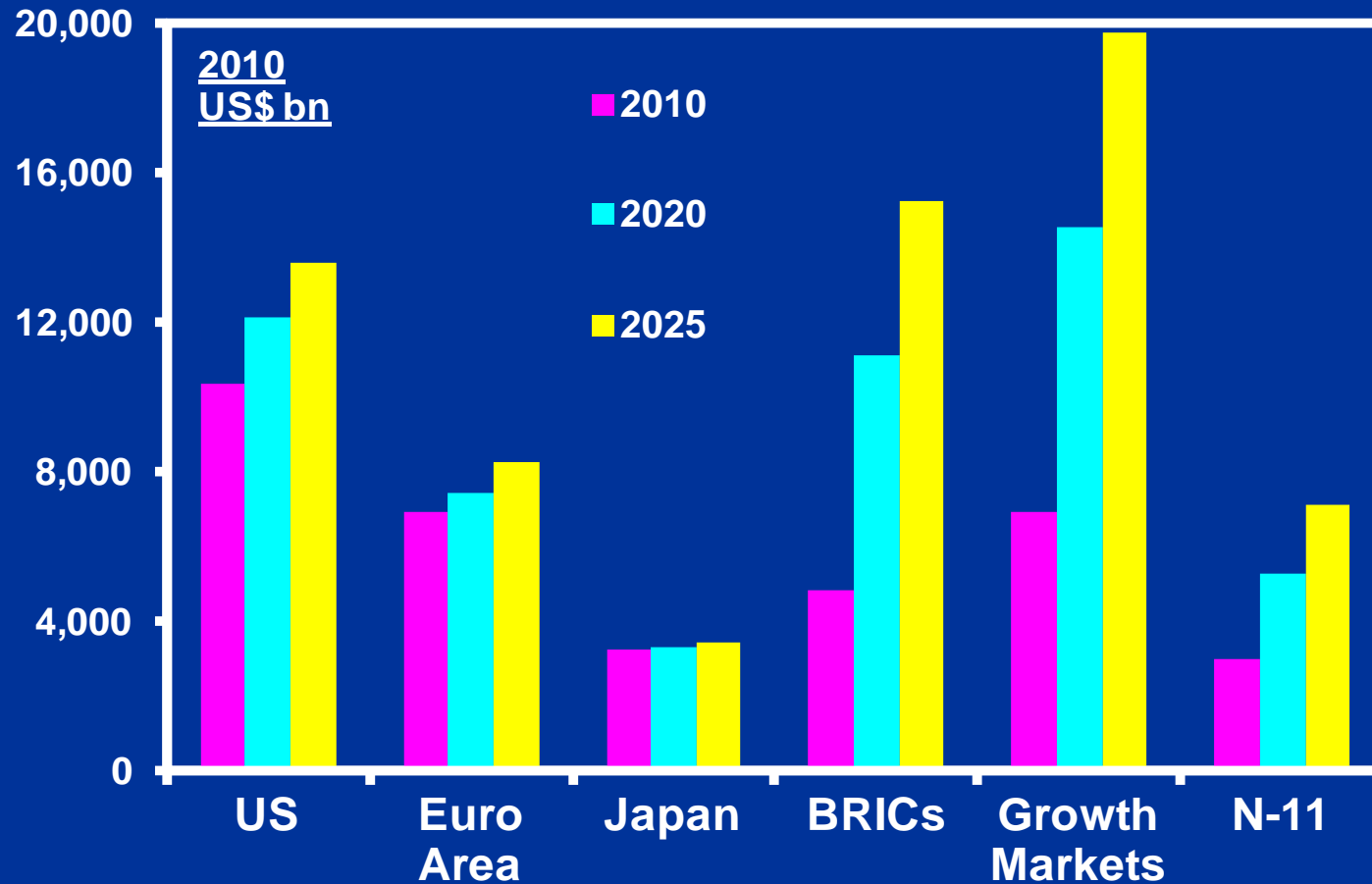


Source: National Sources, GS Global ECS Research.

...supporting retail sales globally

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BRICs Real Consumption Could Double by the End of the Decade



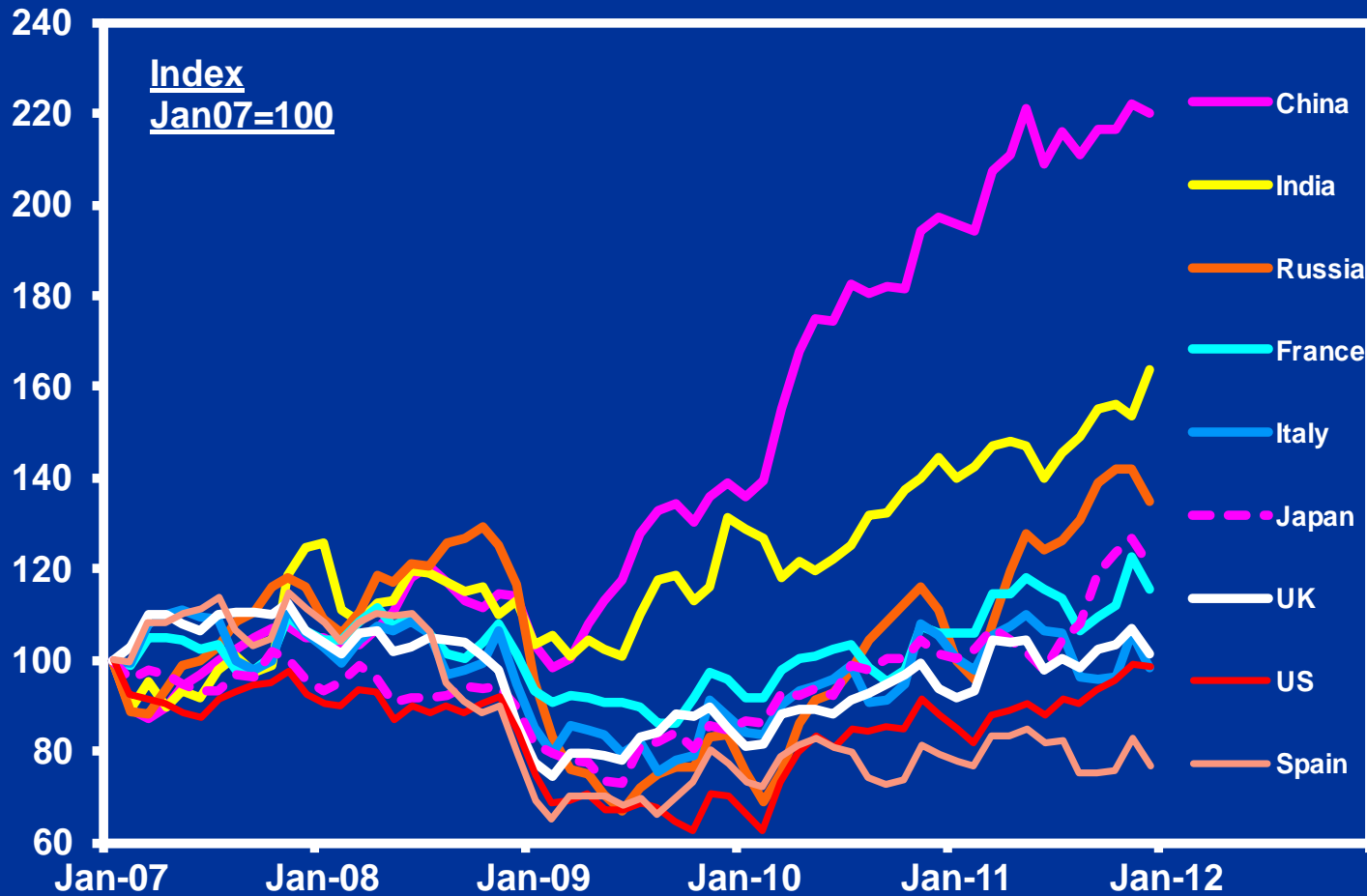
Source: GS Global ECS Research, and GSAM calculations

Source: National Sources, IMF, GS Global ECS Research, GSAM calculations

China's consumer is set to rise dramatically

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Germany's Exports to Key Destinations

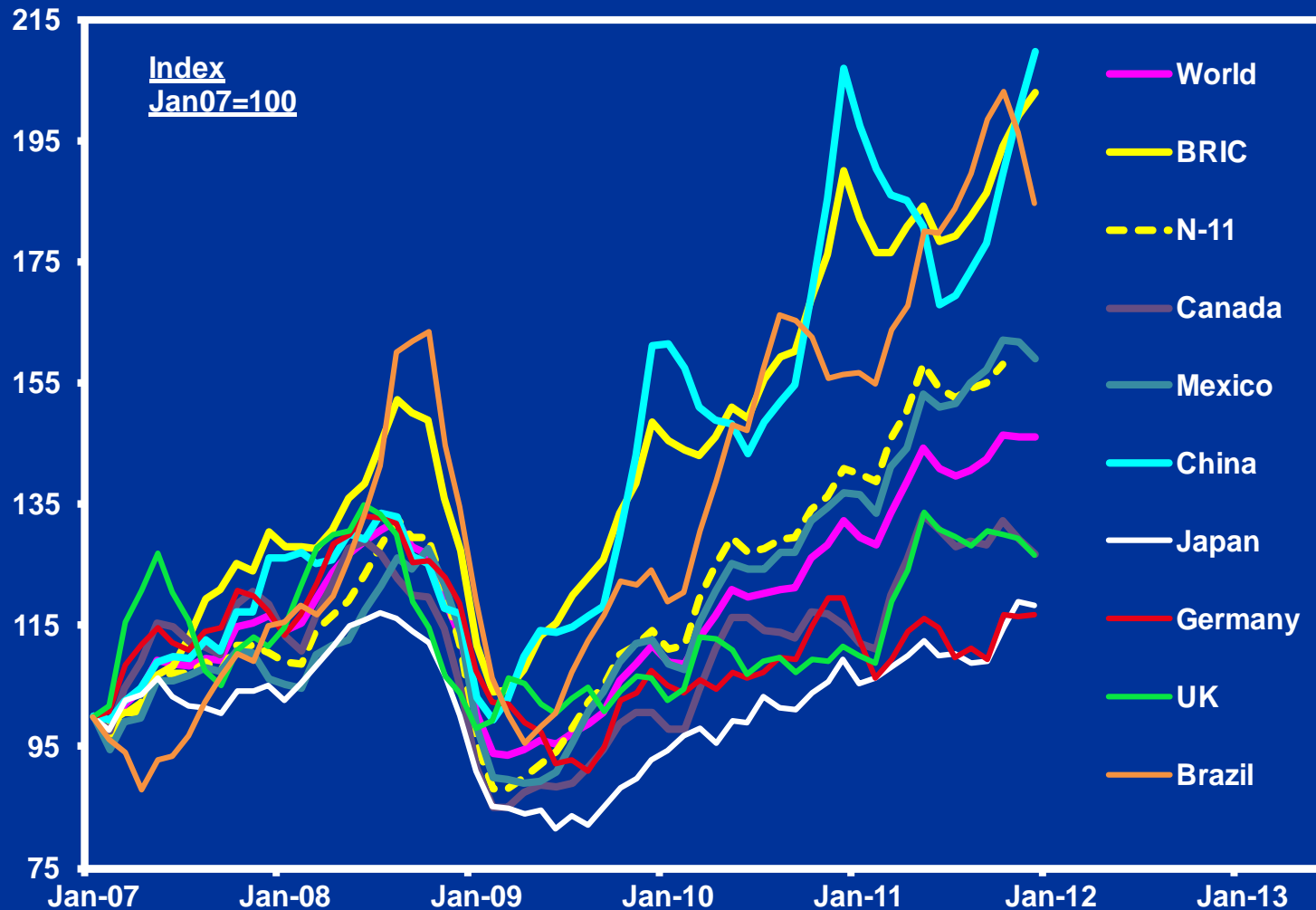


Source: Haver Analytics, GS calculations

China and other BRICs are becoming the major export destinations in the developed world, particularly Germany...

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US Exports to Key Destinations

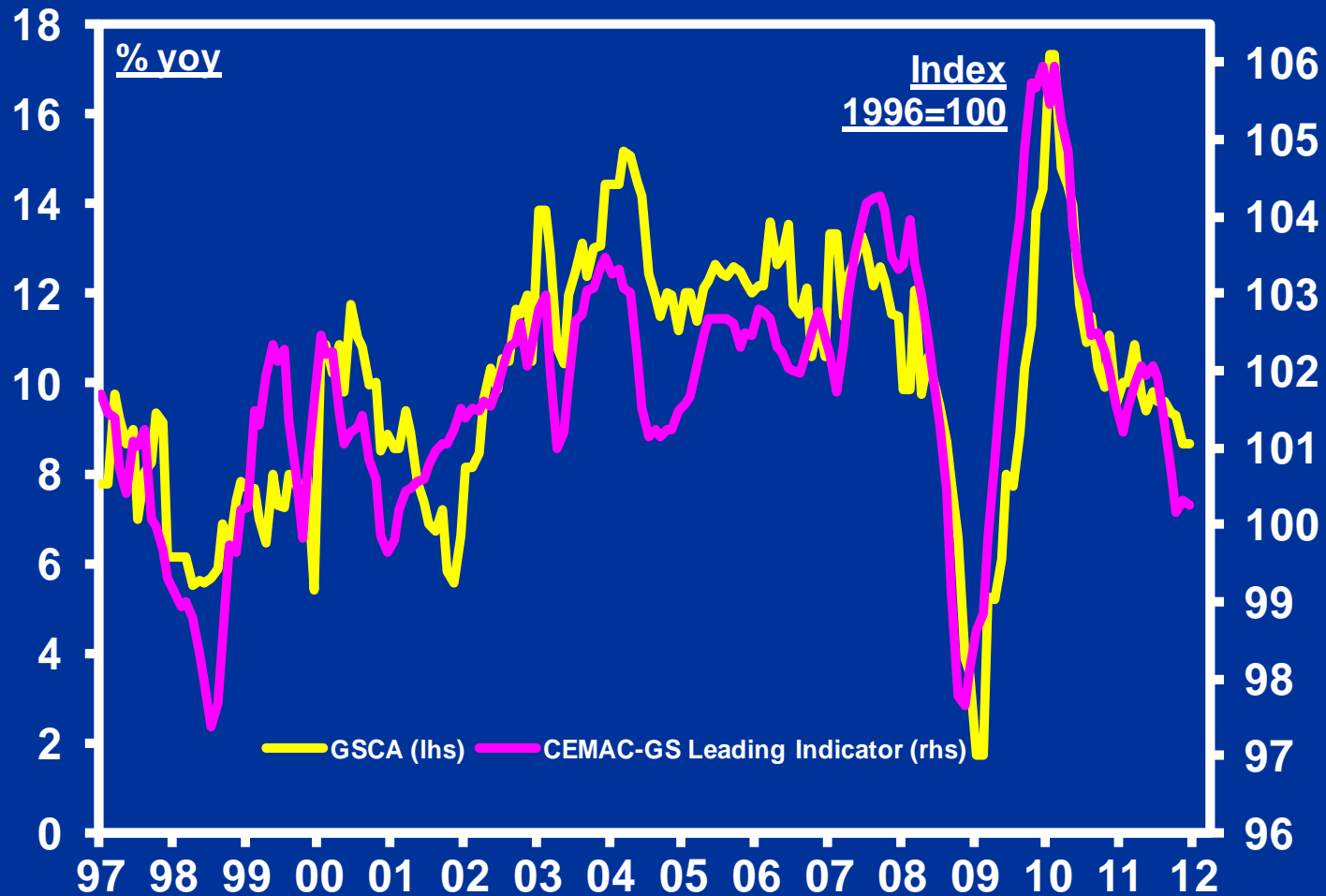


Source: Haver Analytics and GSAM Calculations.

...and the US

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China Lead Indicators

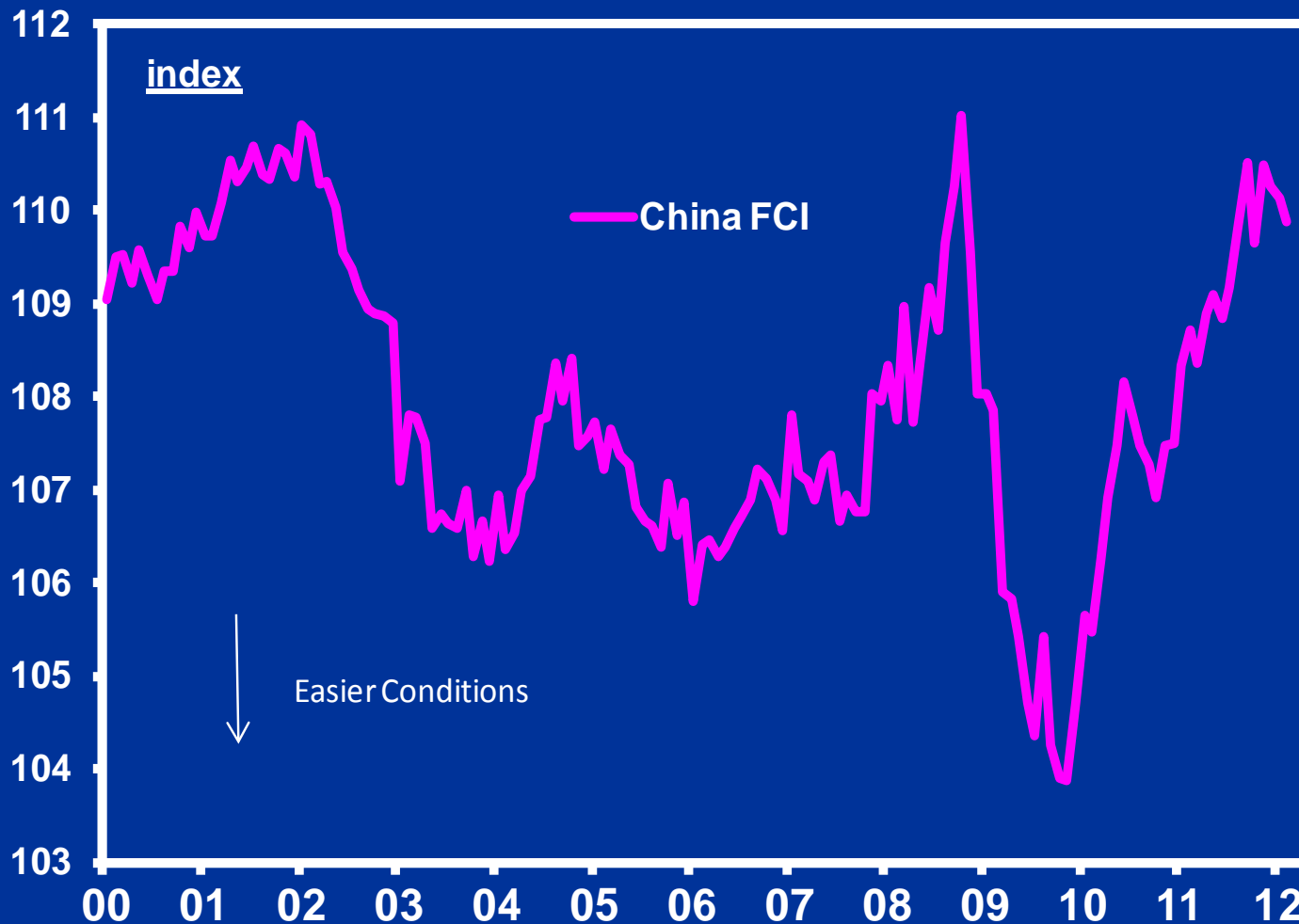


Source: GS Global ECS Research

China leading indicators point to soft landing

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China Financial Conditions Index

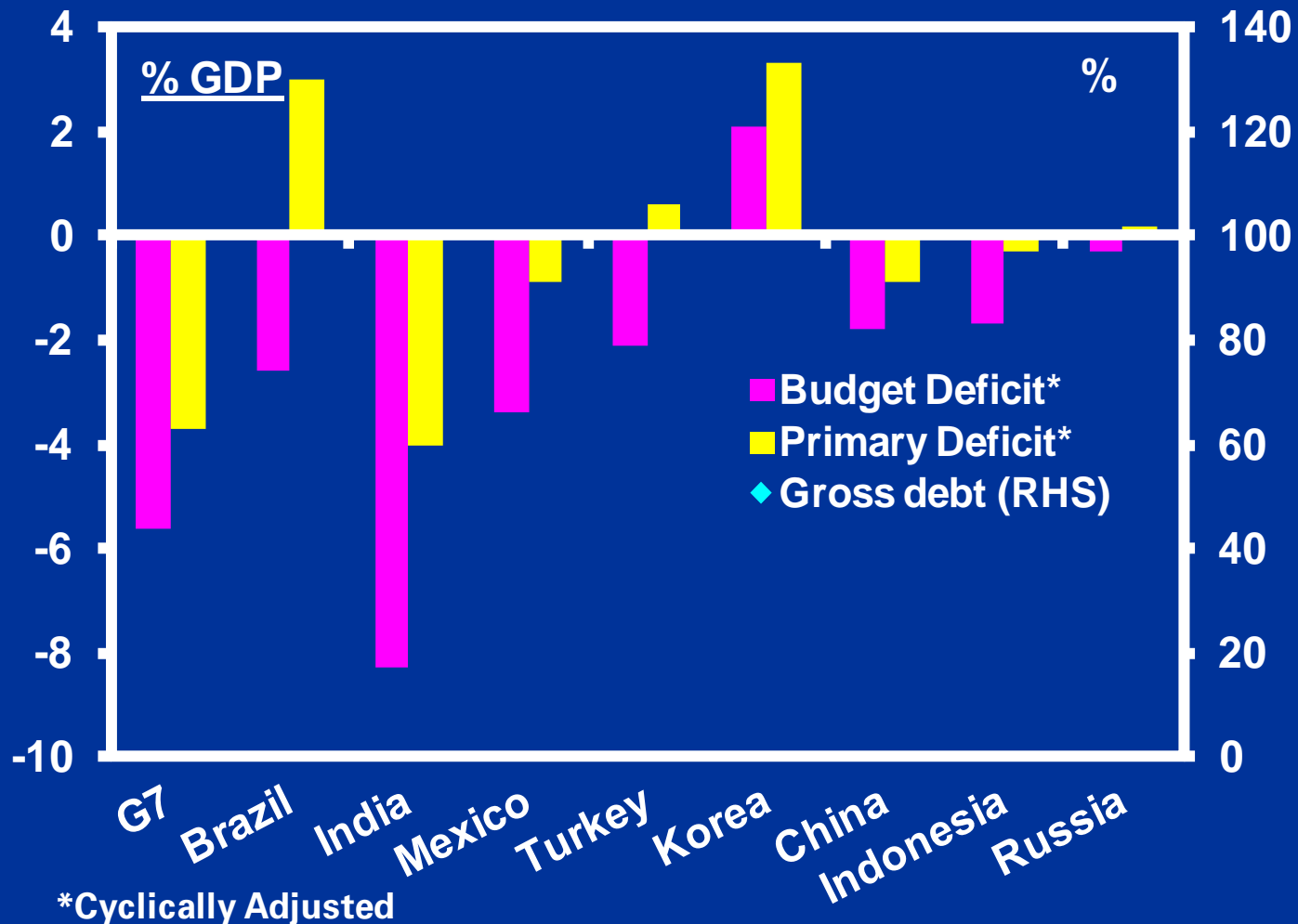


Source: GS Global ECS Research

The financial conditions are still tight, offering scope for meaningful easing

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Fiscal Policy Options



Source: IMF, Bloomberg, Haver Analytics and GSAM calculations

Growth Markets have fiscal policy options

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- **Transition towards a new growth model and related reforms**
- **Political transition and policy direction**
- **RMB internationalisation and opening up of capital markets**

Source: GS Global ECS Research

China's challenges

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Panel discussion: behind the Chinese wall – demystifying capital markets and challenges faced by treasurers

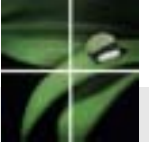
Kathleen Hughes, Managing Director and Head of Global Liquidity Sales, GSAM

Claire Gent, Group Treasurer, Invensys

Jason Granet, Executive Director and Head of International Cash Portfolio Management, Global Liquidity Management, GSAM

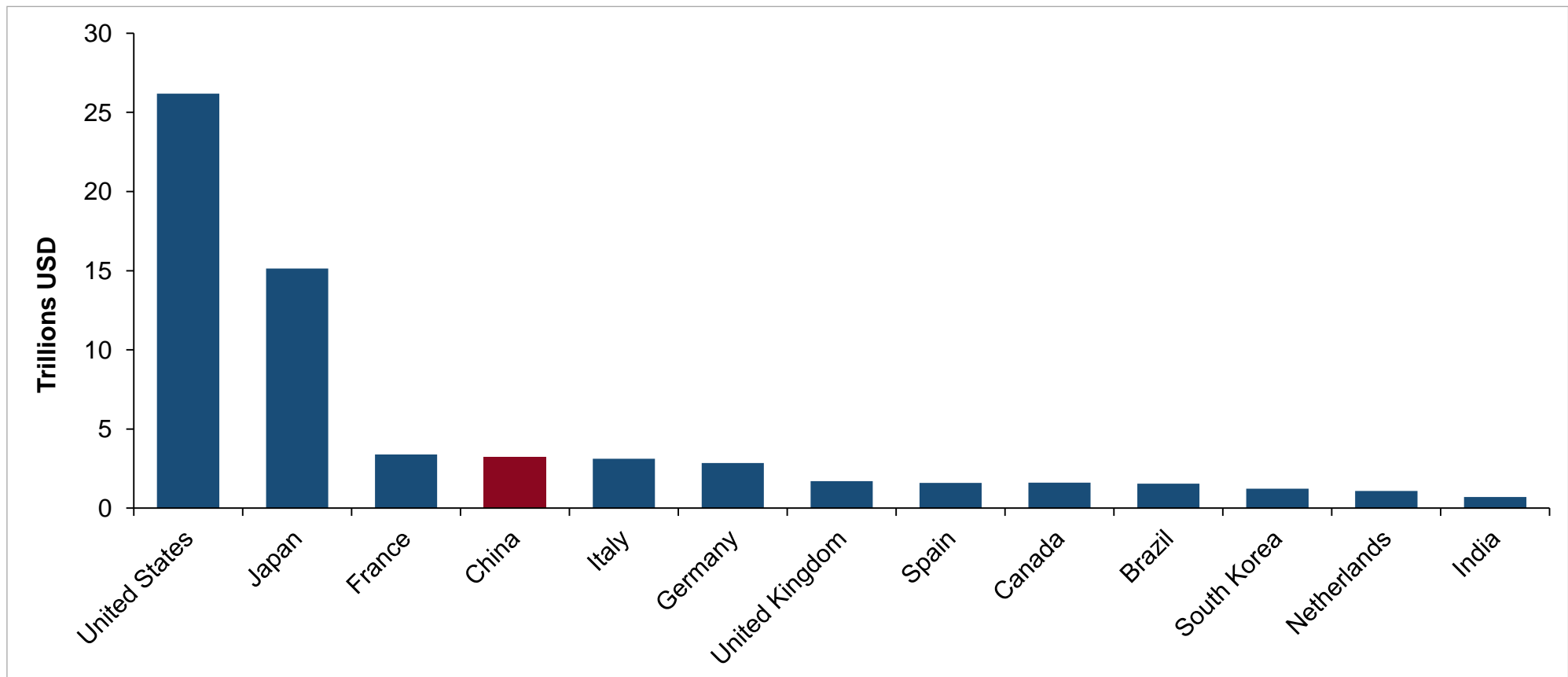
Dominique Jooris, Managing Director and Head of Asia Pacific Ex-Japan Investment Grade Capital Markets and Hybrid Capital Solutions, GS

Thomas Neidert, Group Treasurer, Qiagen



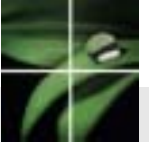
Global debt outstanding

Domestic bonds outstanding



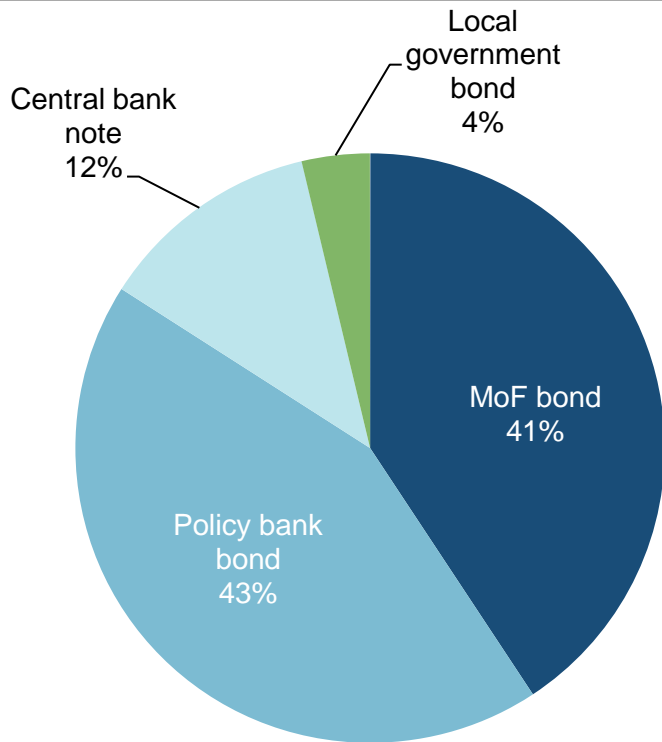
China is a big market

Source: Bank for International Settlement, as of Sep 2011.



Market size and growth rate

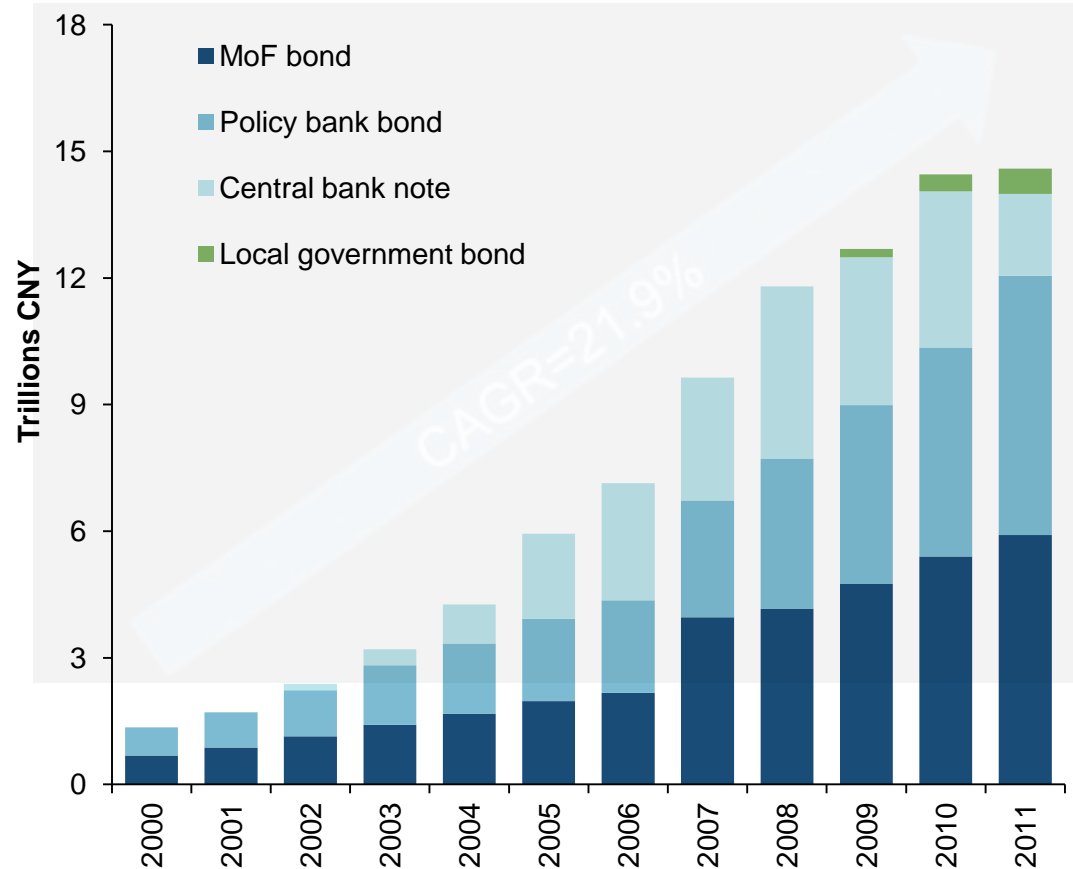
Outstanding amount as of March 2012



Total amount: 15.82 Trillion CNY

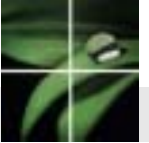
Source: WIND, as of March 2012.

Outstanding and composition

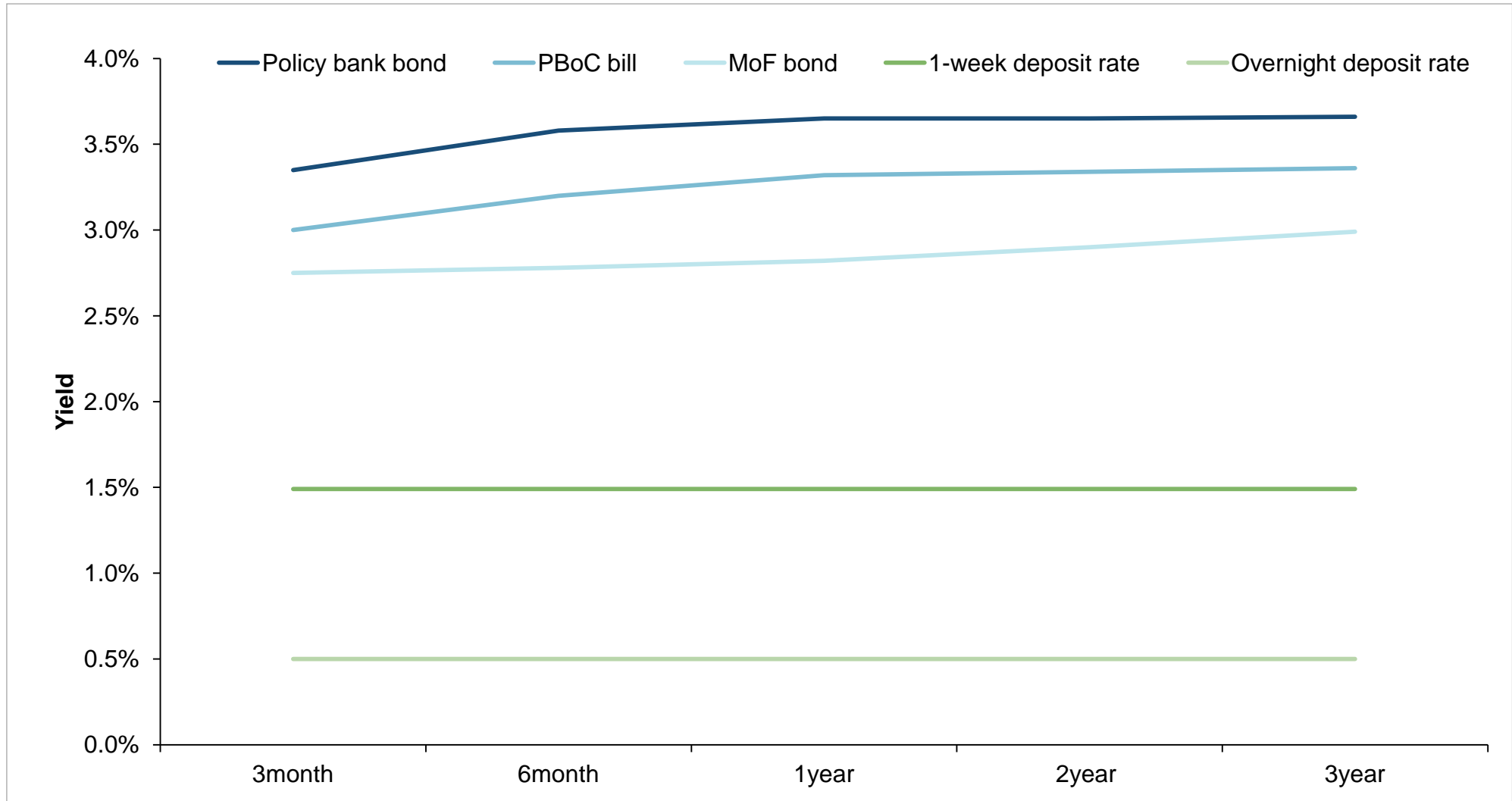


Source: WIND, as of Jan 2012

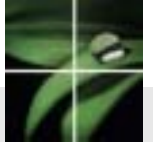
Market has been growing for years and now is ripe to provide appropriate liquidity



Yields in the CNY market



Source: PBoC, China Government Securities Depository Trust Clearing Co. Ltd., as 05 April 2012.



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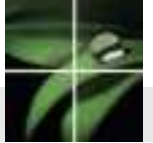
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1. Our clients' interests always come first. Our experience shows that if we serve our clients well, our own success will follow.
2. Our assets are our people, capital and reputation. If any of these is ever diminished, the last is the most difficult to restore. We are dedicated to complying fully with the letter and spirit of the laws, rules and ethical principles that govern us. Our continued success depends upon unswerving adherence to this standard.
3. Our goal is to provide superior returns to our shareholders. Profitability is critical to achieving superior returns, building our capital, and attracting and keeping our best people. Significant employee stock ownership aligns the interests of our employees and our shareholders.
4. We take great pride in the professional quality of our work. We have an uncompromising determination to achieve excellence in everything we undertake. Though we may be involved in a wide variety and heavy volume of activity, we would, if it came to a choice, rather be best than biggest.
5. We stress creativity and imagination in everything we do. While recognizing that the old way may still be the best way, we constantly strive to find a better solution to a client's problems. We pride ourselves on having pioneered many of the practices and techniques that have become standard in the industry.
6. We make an unusual effort to identify and recruit the very best person for every job. Although our activities are measured in billions of dollars, we select our people one by one. In a service business, we know that without the best people, we cannot be the best firm.
7. We offer our people the opportunity to move ahead more rapidly than is possible at most other places. Advancement depends on merit and we have yet to find the limits to the responsibility our best people are able to assume. For us to be successful, our men and women must reflect the diversity of the communities and cultures in which we operate. That means we must attract, retain and motivate people from many backgrounds and perspectives. Being diverse is not optional; it is what we must be.
8. We stress teamwork in everything we do. While individual creativity is always encouraged, we have found that team effort often produces the best results. We have no room for those who put their personal interests ahead of the interests of the Firm and its clients.
9. The dedication of our people to the Firm and the intense effort they give their jobs are greater than one finds in most other organizations. We think that this is an important part of our success.
10. We consider our size an asset that we try hard to preserve. We want to be big enough to undertake the largest project that any of our clients could contemplate, yet small enough to maintain the loyalty, the intimacy and the esprit de corps that we all treasure and that contribute greatly to our success.
11. We constantly strive to anticipate the rapidly changing needs of our clients and to develop new services to meet those needs. We know that the world of finance will not stand still and that complacency can lead to extinction.
12. We regularly receive confidential information as part of our normal client relationships. To breach a confidence or to use confidential information improperly or carelessly would be unthinkable.
13. Our business is highly competitive, and we aggressively seek to expand our client relationships. However, we must always be fair competitors and must never denigrate other firms.
14. Integrity and honesty are at the heart of our business. We expect our people to maintain high ethical standards in everything they do, both in their work for the firm and in their personal lives.