

# 2012 - Fifth Lean Year



Jaewoo Lee +82 2 3707 0465  
Korea Economist  
Merrill Lynch (Seoul)  
jaewoo.lee@baml.com

*Global Crisis since 2008 - Now Year 5*

*Euro Zone Crisis - Now Year 2*

*Global Banking in retreat*

*Asia and Korea - Relatively well*

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Refer to important disclosures on page 43-47.

# Organization of presentation

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- 2012 Outlook and Risk
- 2008: Crisis, not a mere recession
- US Economy - Rehabilitation Recovery
- Europe - From Fiscal To Banking
- Global Banking on the defensive
- Asia and Korea - Competitive Prospects

## 2012: Global Risk and Korea

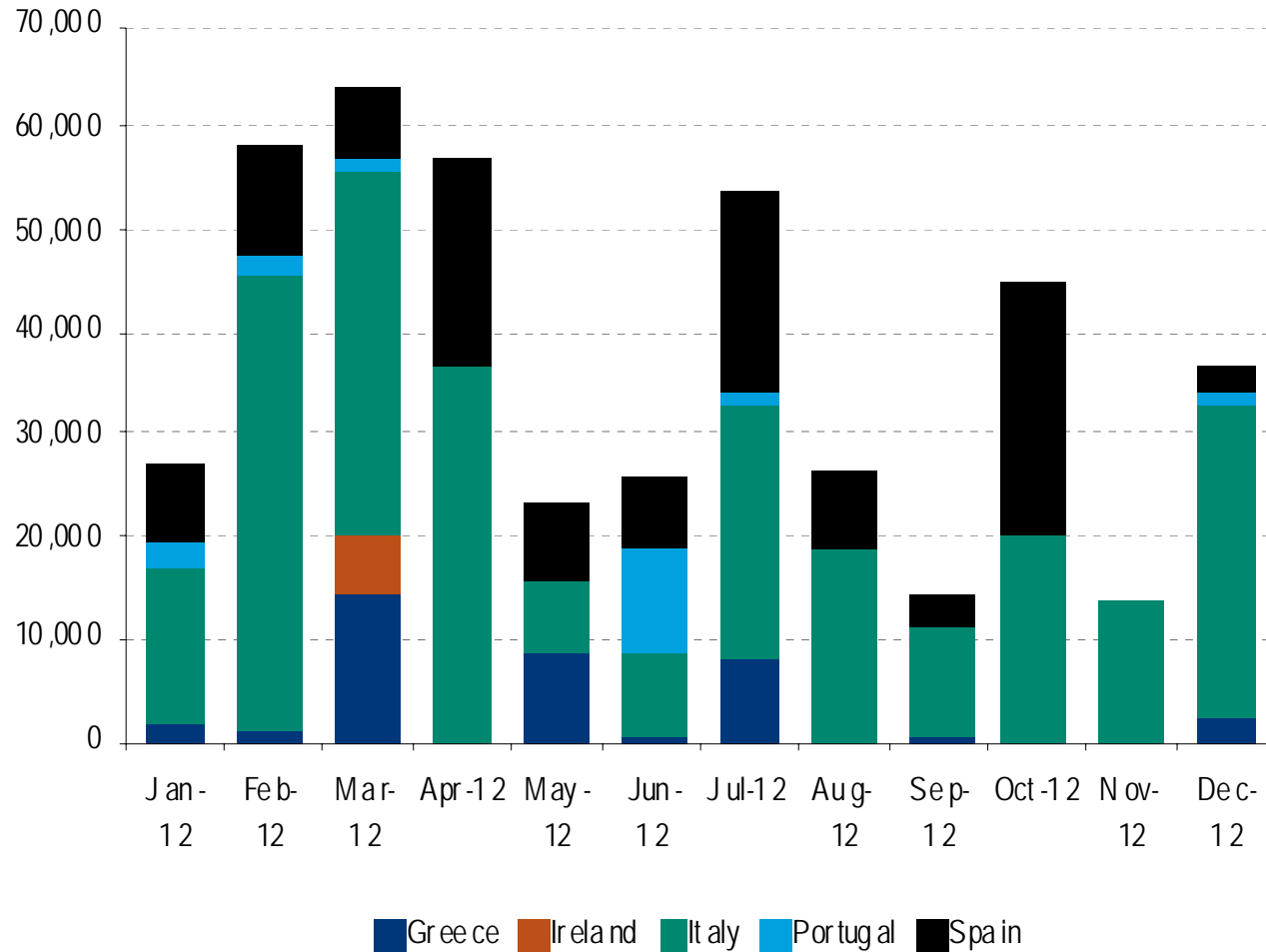
### Upside and Downside Risks

% yoy	Base Case	Bull Case	Bear Case
Global GDP	3.5	4.3	1.0
US GDP	1.9	2.5	-0.5
EZ GDP	-0.6	1.0	-2.5
China GDP	8.6	9.2	7.5
C3 GDP	3.3	4.2	1.4
Korea:			
GDP	3.6	4.4	1.8
CPI	3.2	3.4	2.6
Policy rate (Dec.)	3.25	3.75	2.50

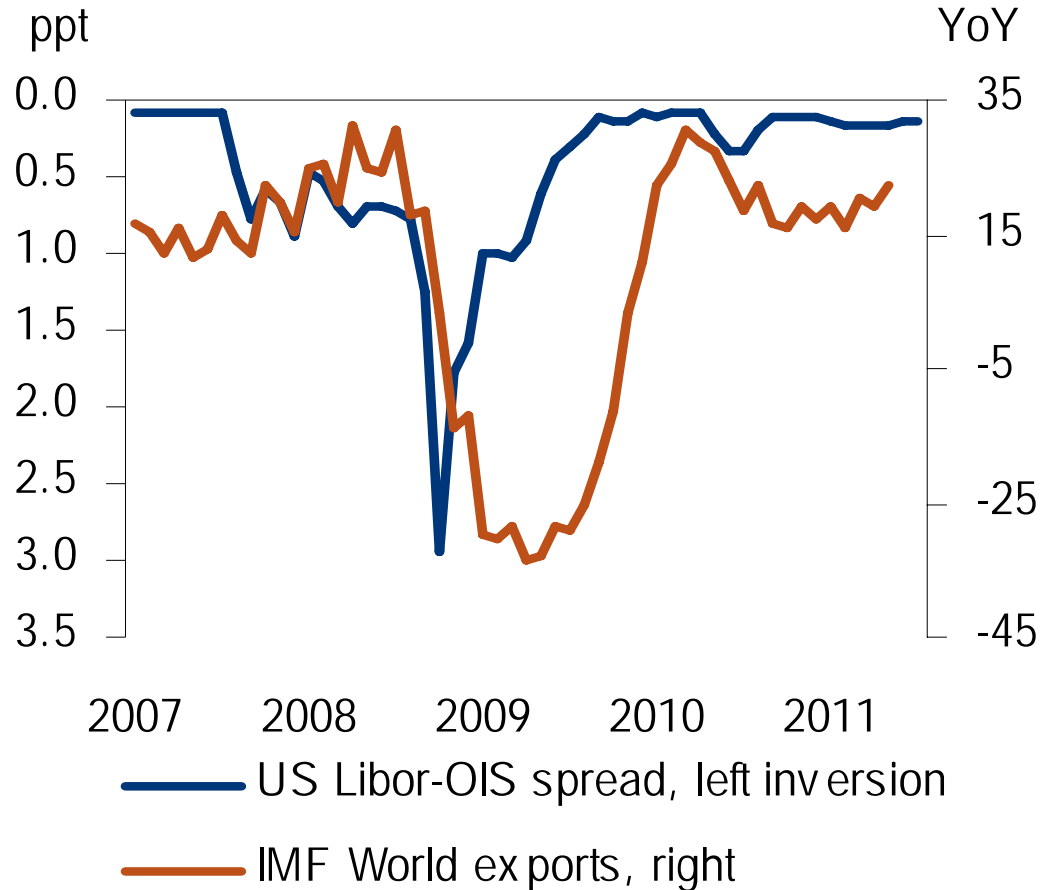
- Exchange rates under baseline  
Weakening in EM currencies in 1Q2012, to be followed by gradual appreciation  
USD-KRW above 1,200 in March 2012 and below 1,050 by December 2012
- Upside risk  
faster resolution of fiscal issues both in the US and especially in EZ
- Downside risk  
further fiscal complications, banking crisis and a major recession in EZ  
mild recession in the US as well  
further policy stimulus in Korea

# Cloud over 1Q 2012: Government Debt maturing in EZ

(principal, million euros)



# 2008 Crisis - once in a lifetime: interbank market and trade



Source: Bloomberg, IMF, BofA Merrill Lynch Global Research calculations.

# What it took to unplug: US Federal government response to the crisis

(\$ billions)	Originally committed
Federal Reserve	
Term auction credit	900
Primary Dealer Credit Facility	Unlimited
Asset-Backed CPMMM fund	Unlimited
Rescue of Bear Stearns**	27
AIG-RMBS purchase program**	23
AIG-CDO purchase program**	30
Term Securities Lending Facility	200
Commercial Paper Funding Facility**	1,800
TALF	1,000
Purchase of GSE debt and MBS	1,425
Treasury	
Fed supplementary financing account	560
FDIC	
Guarantee of U.S. banks' debt*	1400
Congress	
TARP	700
American Recovery and Reinvestment Act of 2009***	784

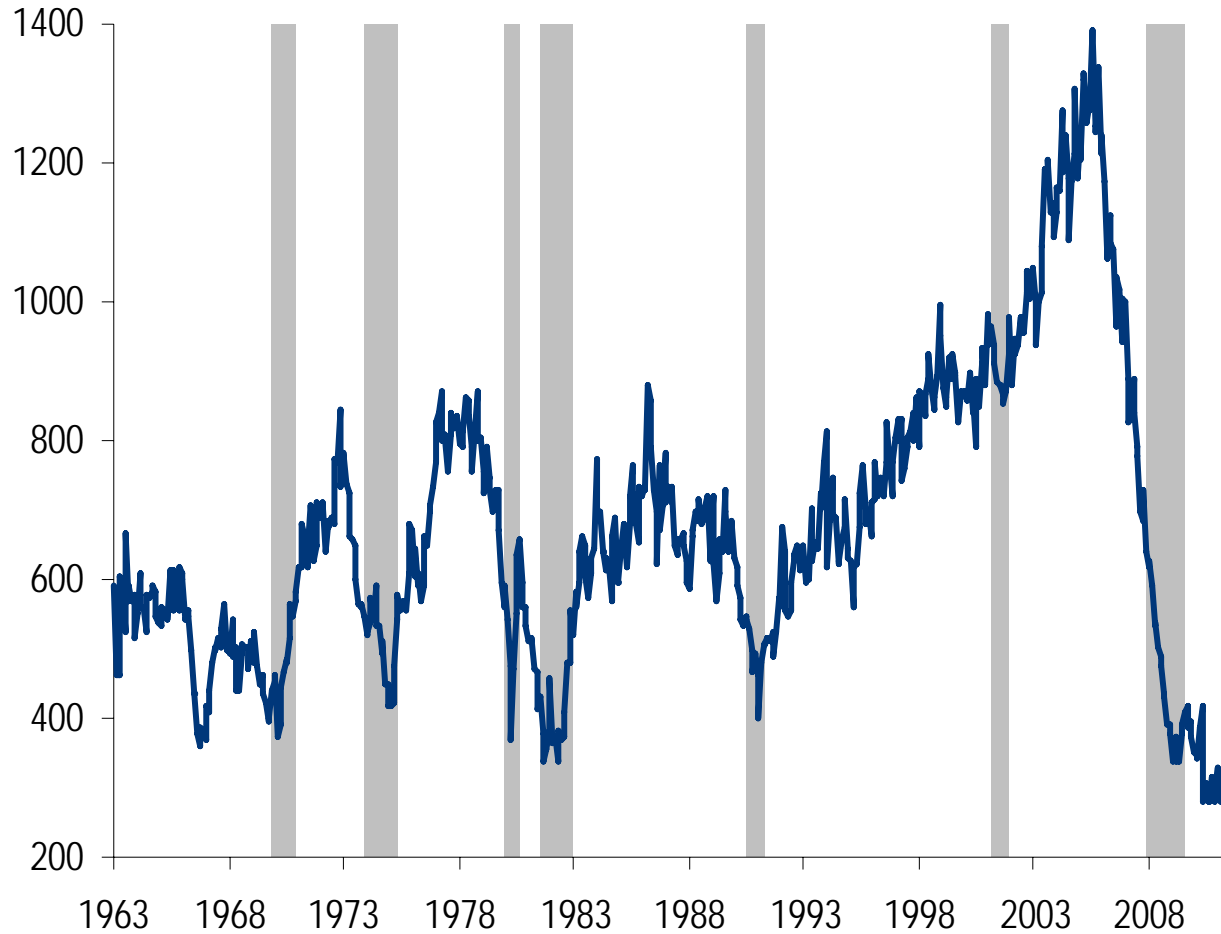
# US Economy

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- Political uncertainty on fiscal outlook
- Congressional reaction to fiscal stimulus and debt management
- Monetary policy on an extended hold
- Unconventional tools and QE
- Precarious sentiment: small business as well as consumer
- Clog in the real estate market
- Growth: “modest to moderate”

# Collapse in US Housing Demand

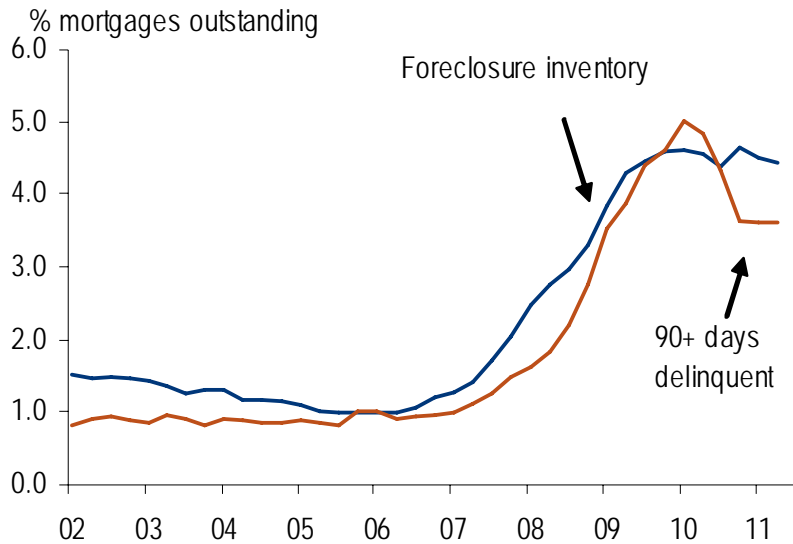
## New home sales (thousands, annualized, SA)





# US Housing - bridge (too) far

## Foreclosure pipeline



## Housing starts likely to turn in 2014

millions of homes, saar

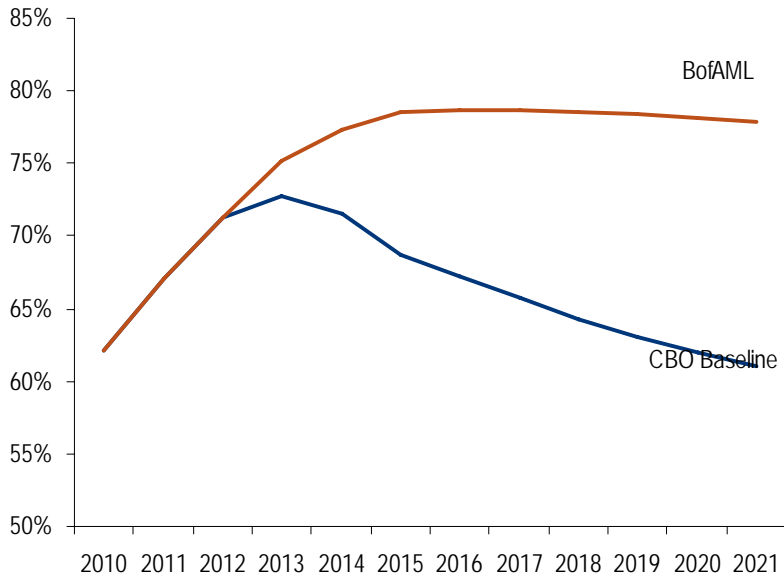


Source: BofA Merrill Lynch Global Research

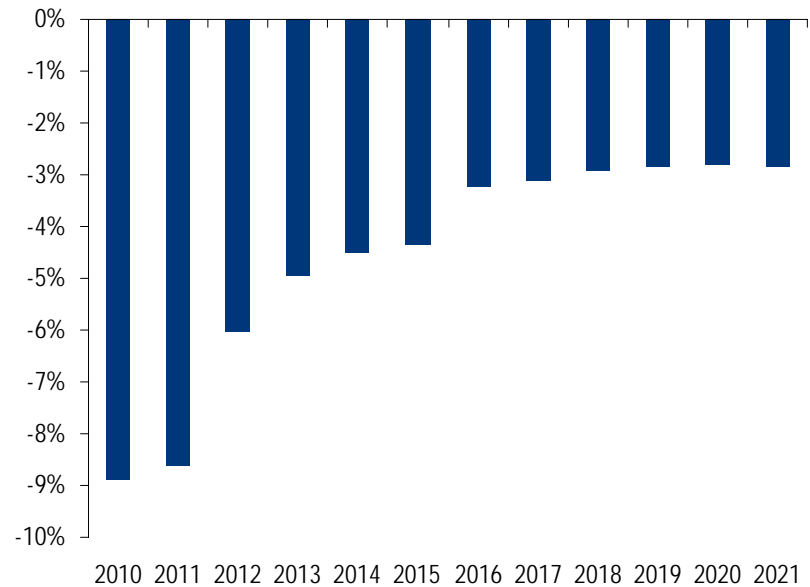
Source: BEA, BofA Merrill Lynch Global Research

# Political Risk and Fiscal Uncertainty

## Two Fiscal paths (debt/GDP)



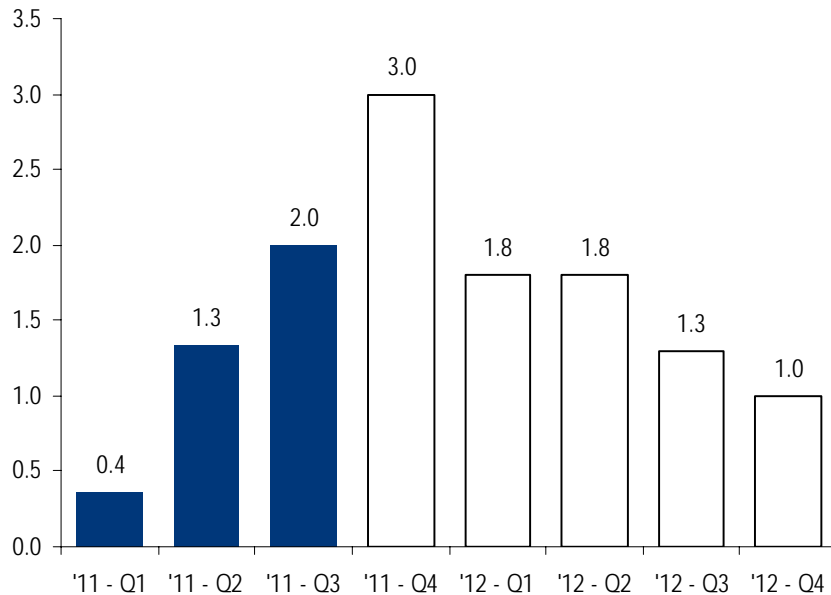
## Deficit path behind the CBO baseline (when all programs are left to expire)



Source: BofA Merrill Lynch Global Research

# Fiscal Drag on Rehab Recovery

## Growth slowing in 2012



Source: BofA Merrill Lynch Global Research

- Strong momentum in 4Q11:
  - earlier estimated at 3.0% (qoq annualized)
  - recently revised upward to 3.5%
- Three shocks on the rehab economy
  - Fiscal tightening
  - Spillover from euro recession with a lag
  - Uncertainty on the post-election fiscal policy, including another debt ceiling deadline.

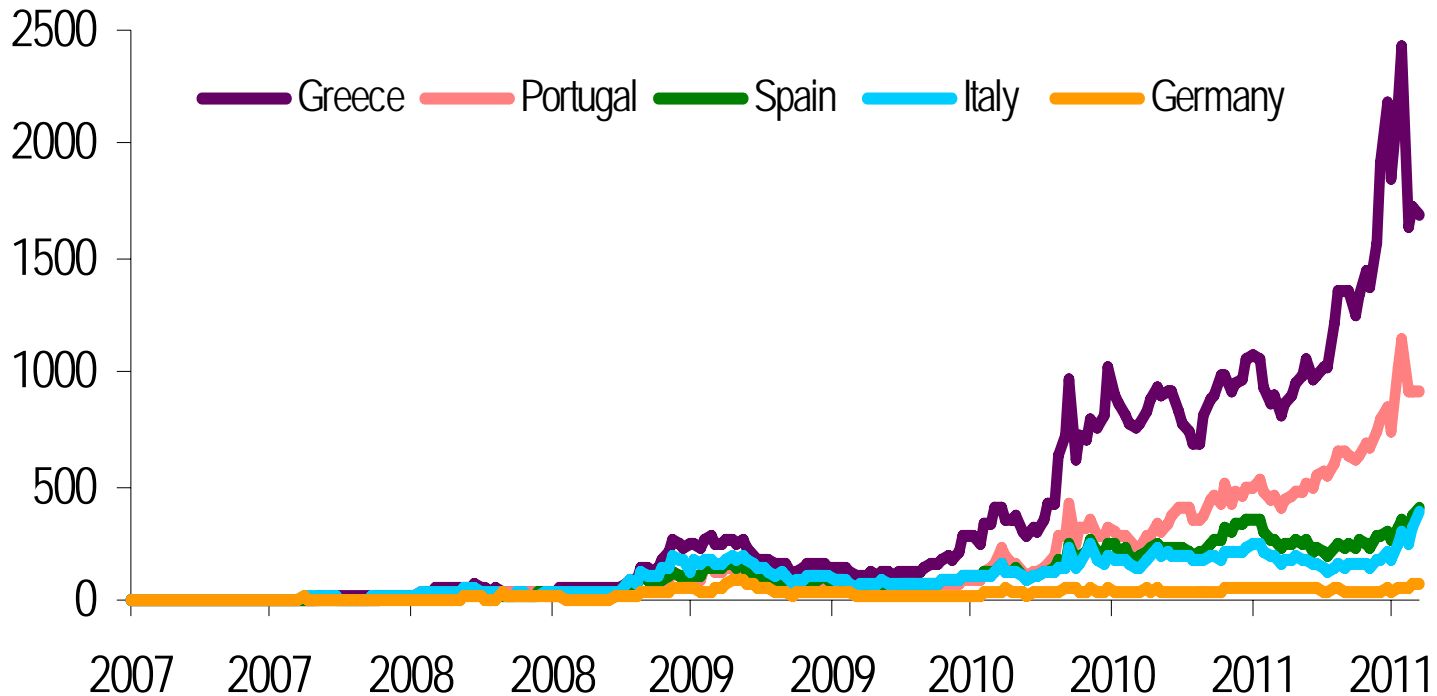
## Europe under pressure

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- Euro and ECB
- Monetary union without fiscal union
- Fiscal differentiation started with Greece
- Fiscal crisis adds pressure on banks
- Rising Uncertainty on resolution

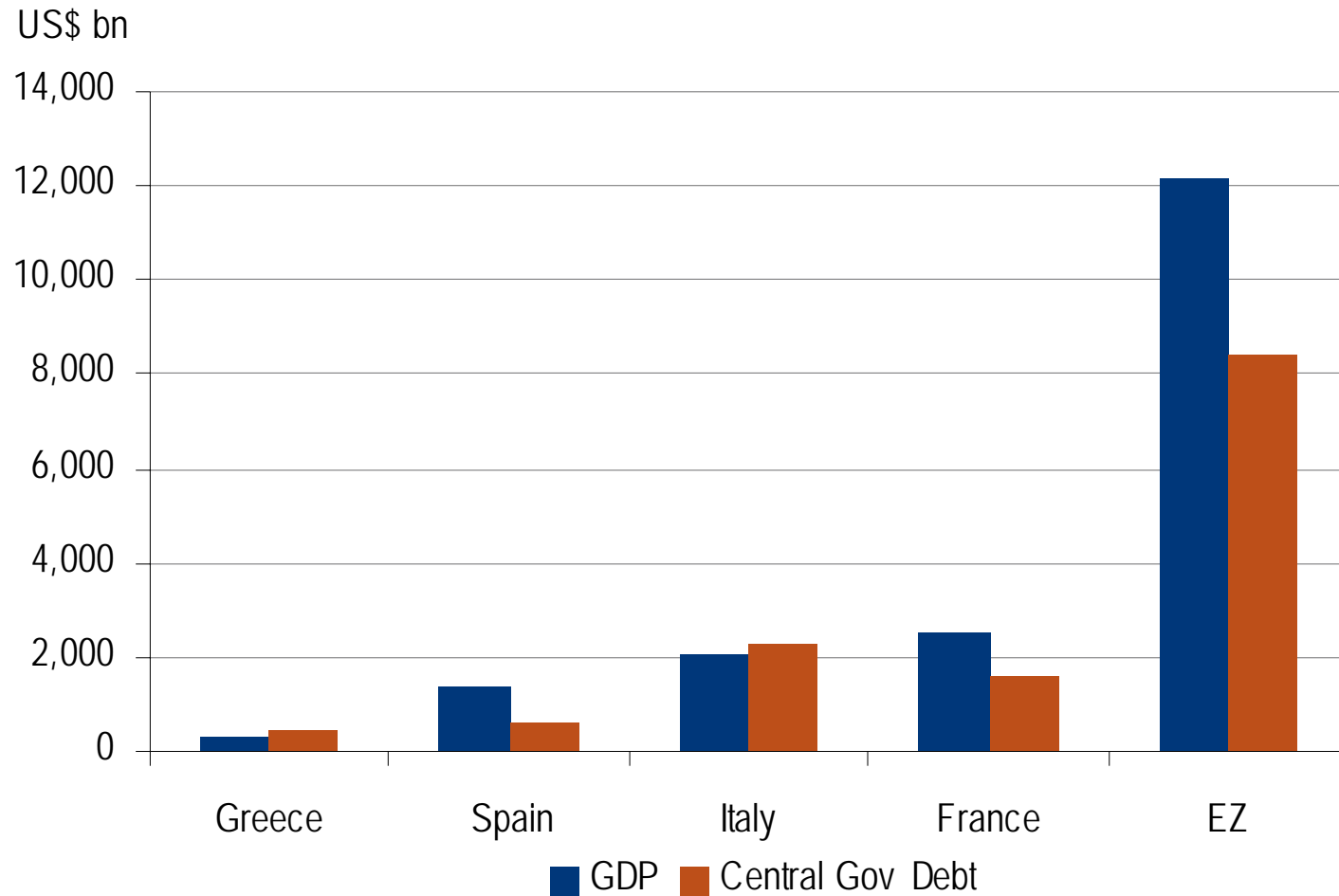
# Fiscal differentiation gone too far?

(Sovereign CDS spreads, bps)



Source: Bloomberg, BofA Merrill Lynch Global Research.

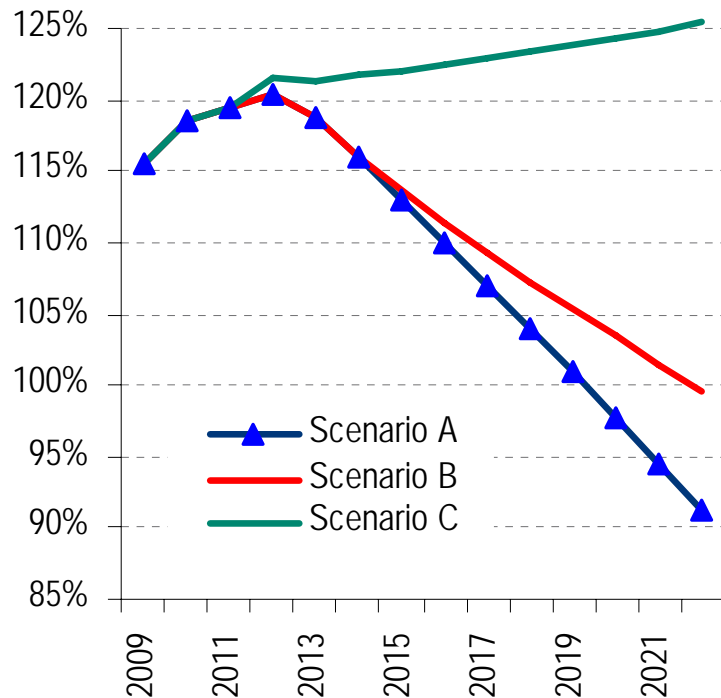
## Sizes of Economy and Debt Market



Source: Haver and Bof A Global Research

## Italy: Debt Sustainability

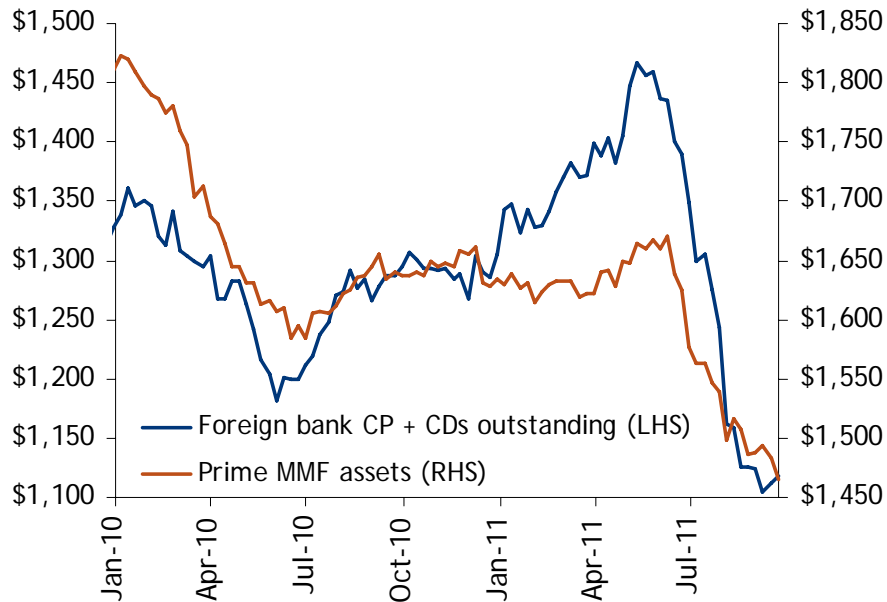
Italy's debt paths



- Some facts: average debt maturity of about 7 years, 73% fixed rate debts, 52% foreign owned, low-growth environment (consensus potential growth below 1%).
- Scenario A : primary surplus (0.9% in 2011) rising to 5 .2% in 2014 onwards; average cost of debt below 5%; nominal gdp growth of 2.8% in 2014 onwards.
- Scenario B: average cost of debt 6.5%
- Scenario C: primary surplus of 2% in 2014 and after

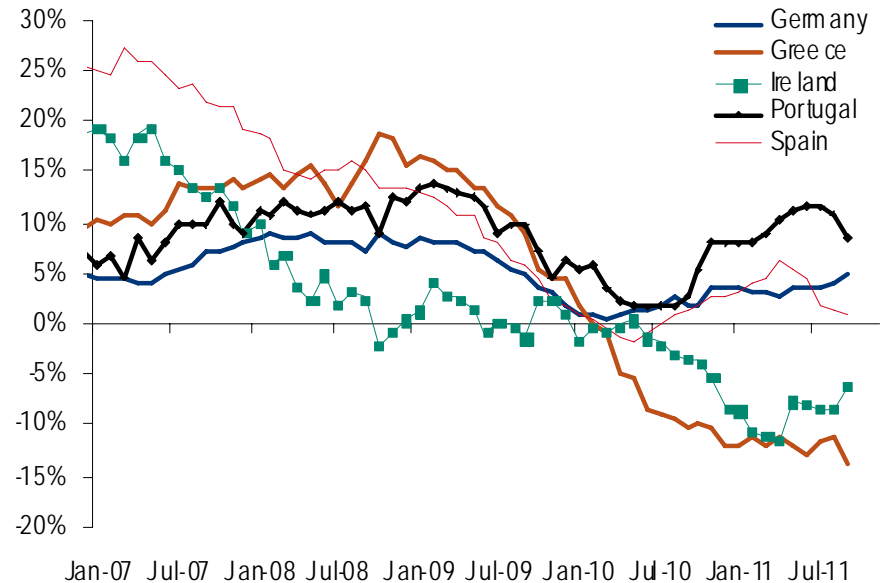
# Shrinking funding for EZ banks

## Reduced funding from prime money market funds



Source: BofA Merrill Lynch Global Research

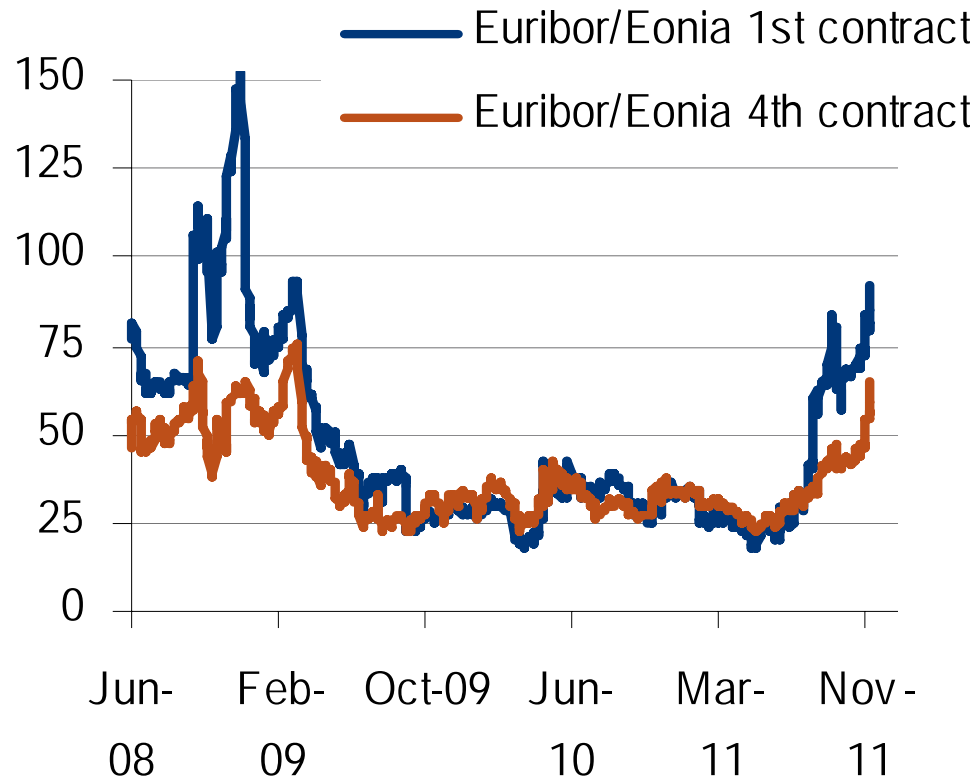
## Weak or shrinking deposit growth



Source: BEA, BofA Merrill Lynch Global Research



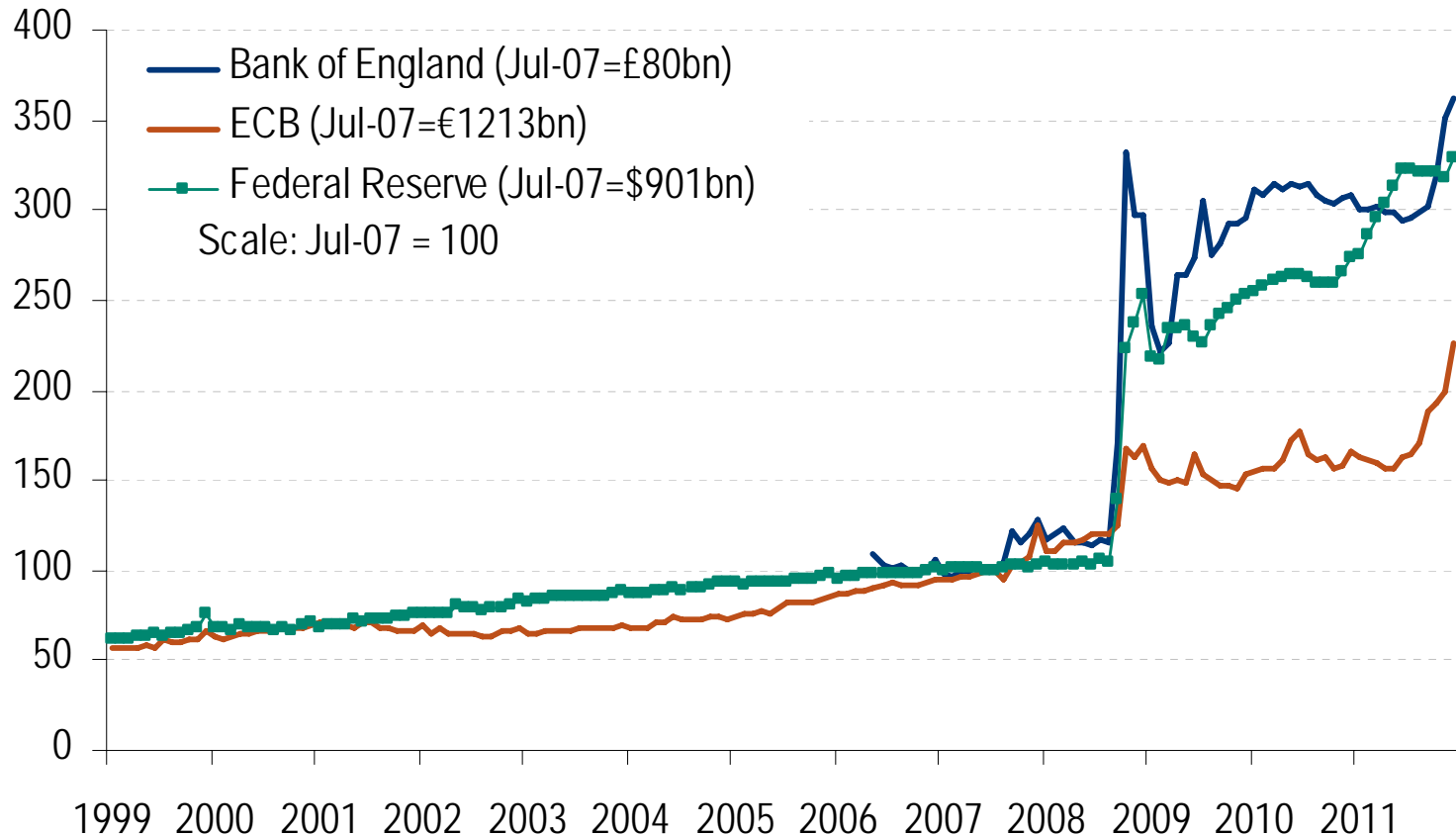
# EZ bank funding pressure back to a dangerous level now



Source: Bloomberg, BofA Merrill Lynch Global Research calculations.

# What ECB should be able to do

## Size of Central Bank Balance Sheets



Source: Bank of England, Federal Reserve, ECB, SIFMA, Haver Analytics

## EZ - Risk of Policy Coordination

- EZ Endgame
  - De facto fiscal union
  - ECB lending, including asset purchase
  
- In the early 1930s, difficulty of agreement among France, Germany and UK, despite the deepening recession
  
- Points of debate now
  - Fiscal discipline
  - ECB credibility
  - Moral hazard
  
- In Need: Competitiveness and Growth

# Global banking

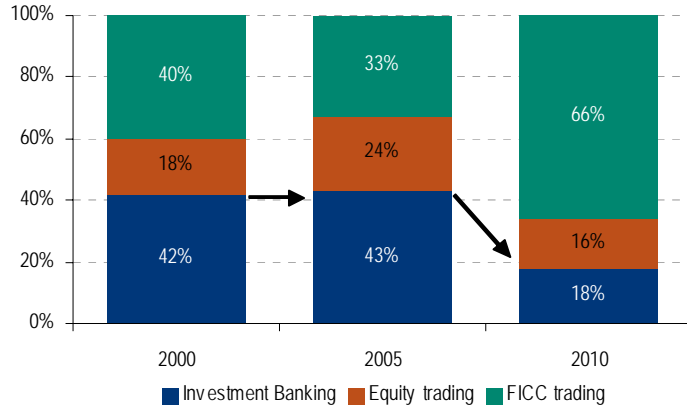
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- Risk taking in retreat
- Regulatory challenges

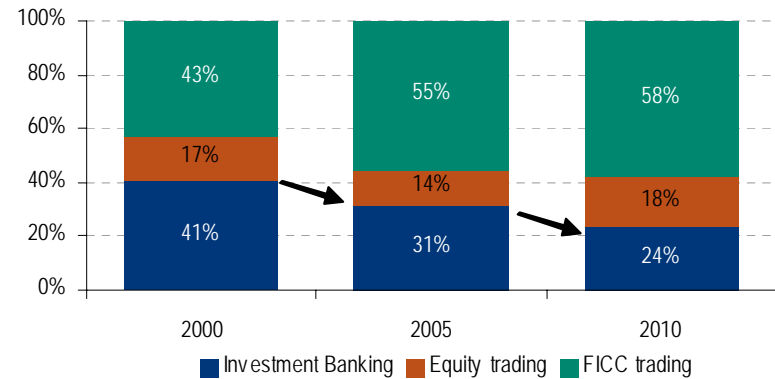
# Investment banking vs trading

Traditional I Banking - M&A advisory; underwriting/distribution of securities

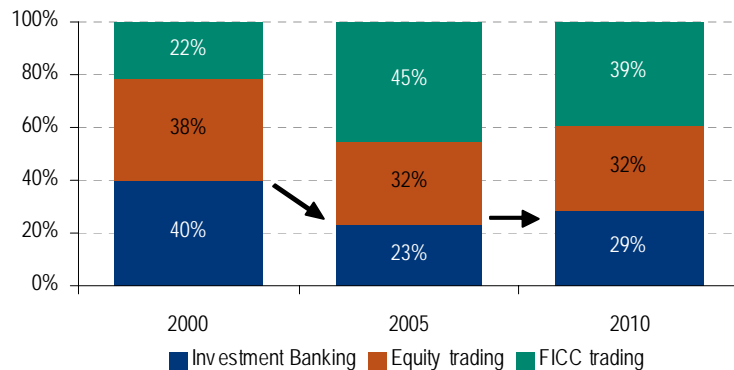
**Citigroup**



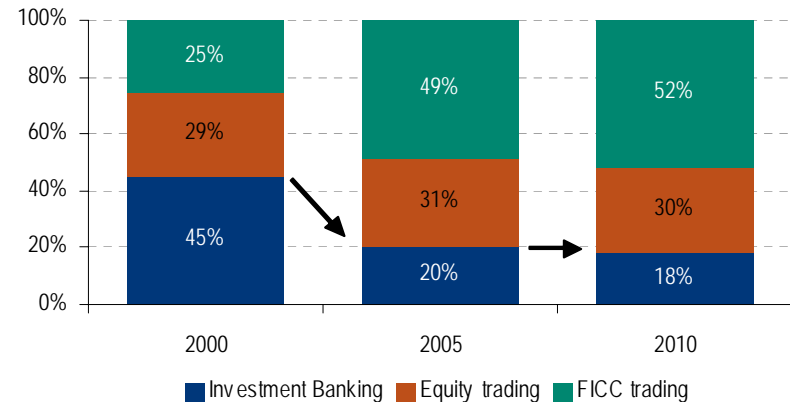
**JP Morgan**



**Morgan Stanley**



**Goldman Sachs**

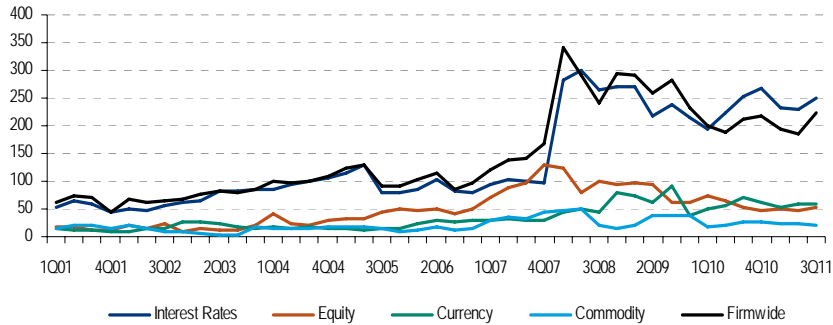


Sources for each panel: Company, BofA Merrill Lynch Global Research

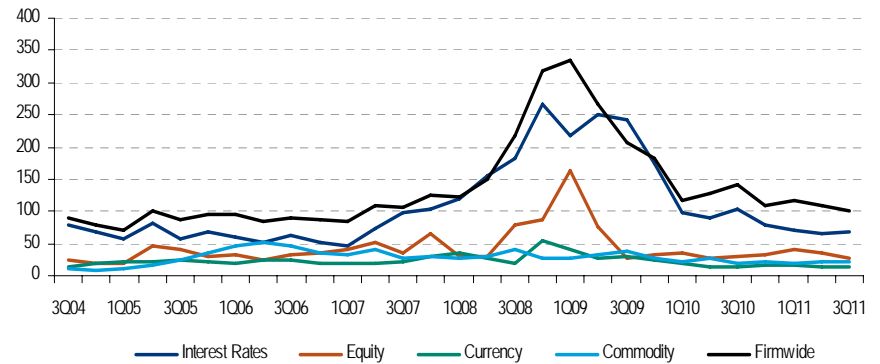
# Trading risks

## average daily VaR by product (\$ millions)

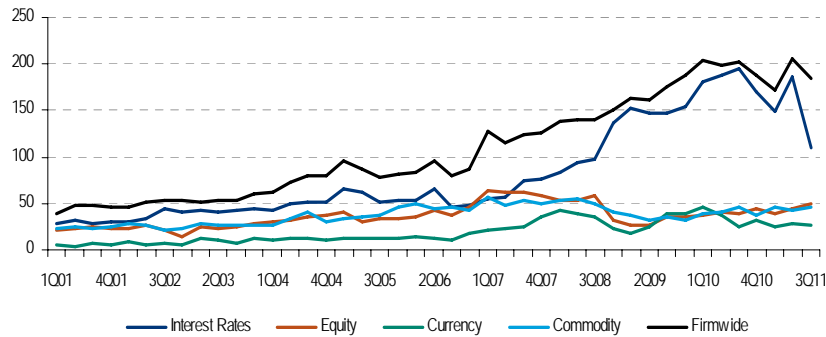
**Citigroup**



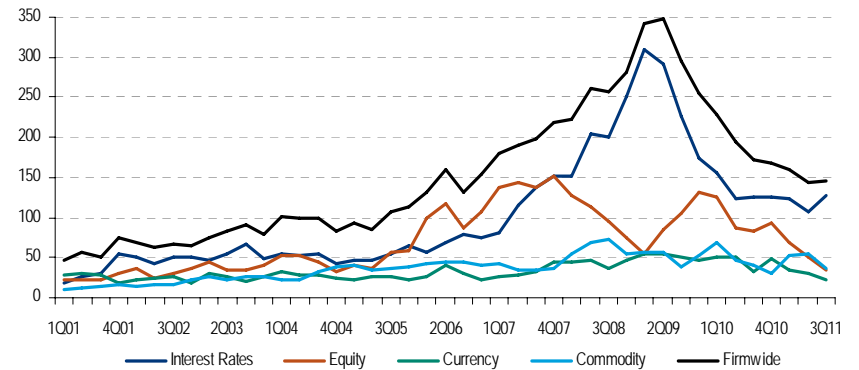
**JP Morgan**



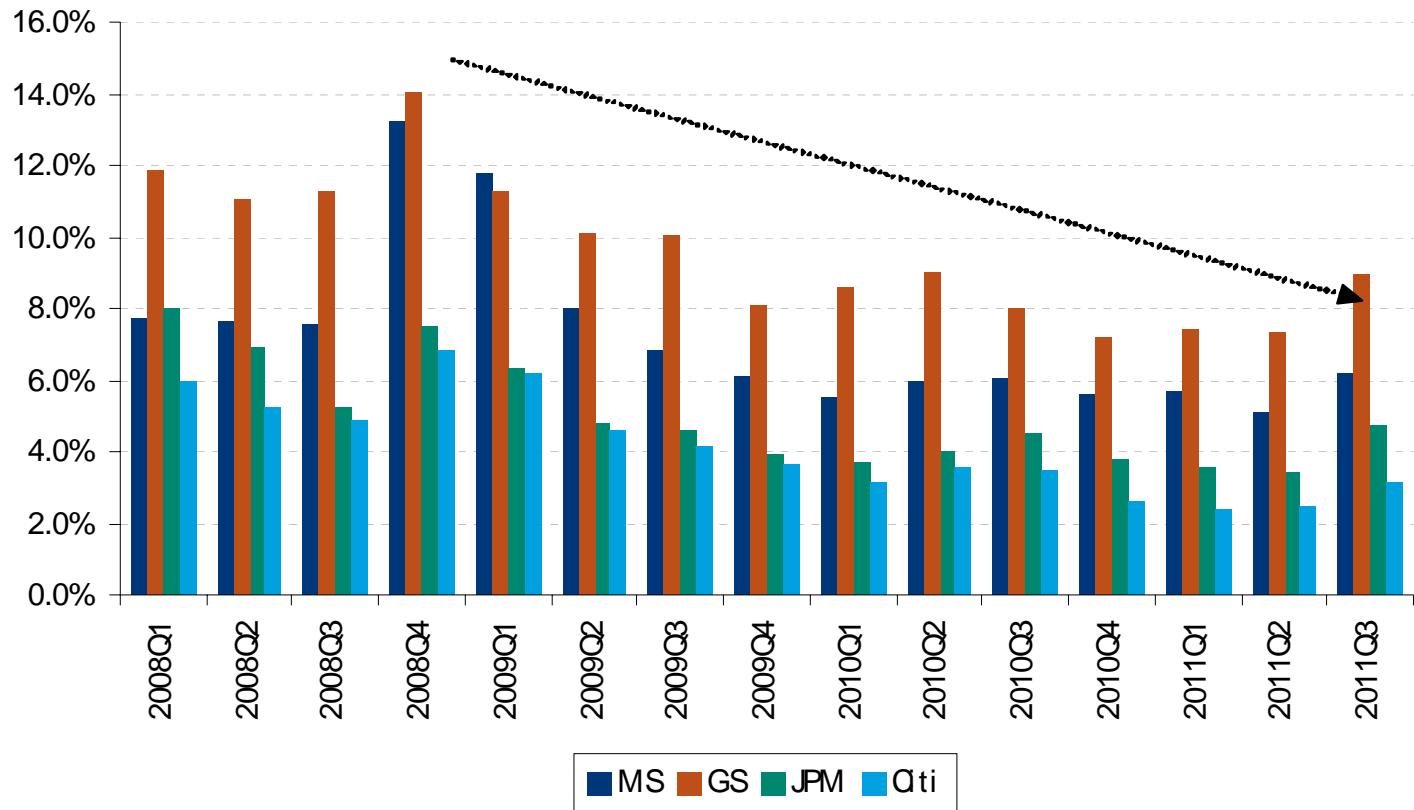
**Morgan Stanley**



**Goldman Sachs**



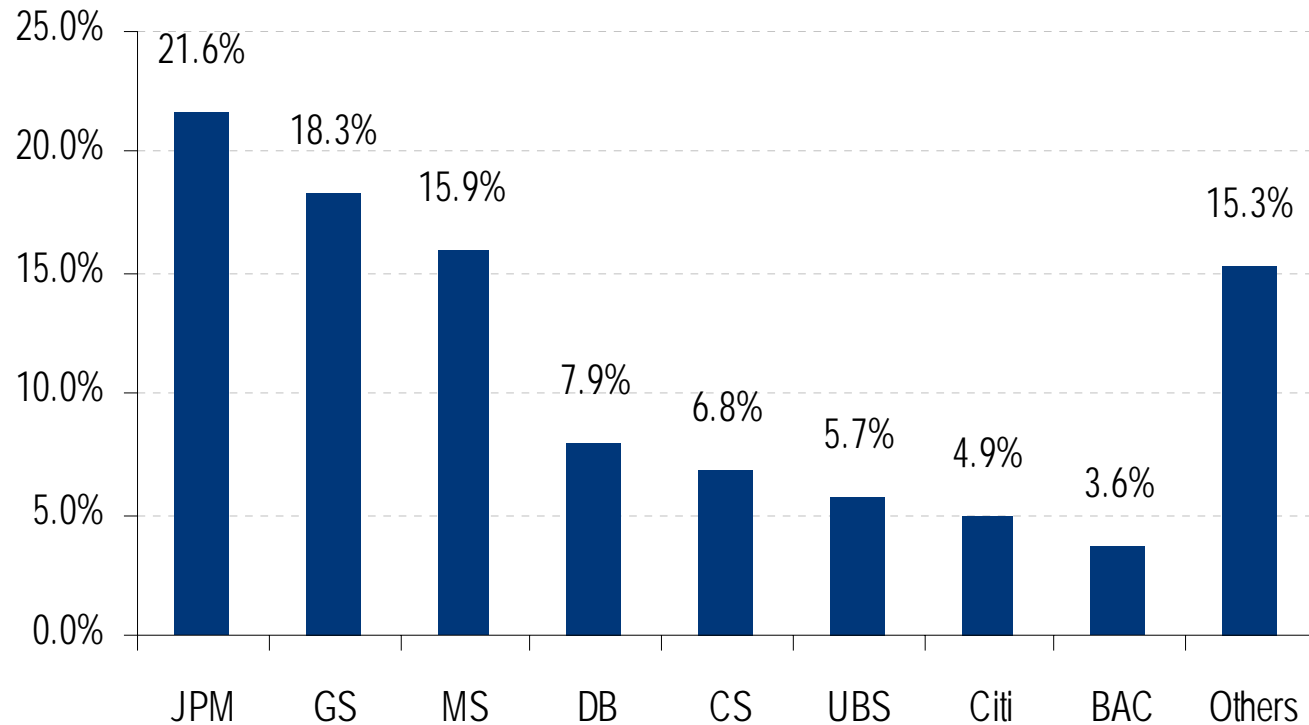
# Net derivatives as % of total assets



Source: Company reports, BofA Merrill Lynch Global Research

# Prime brokerage reshuffled

## Largest hedge fund prime brokers, in % of 2010 industry

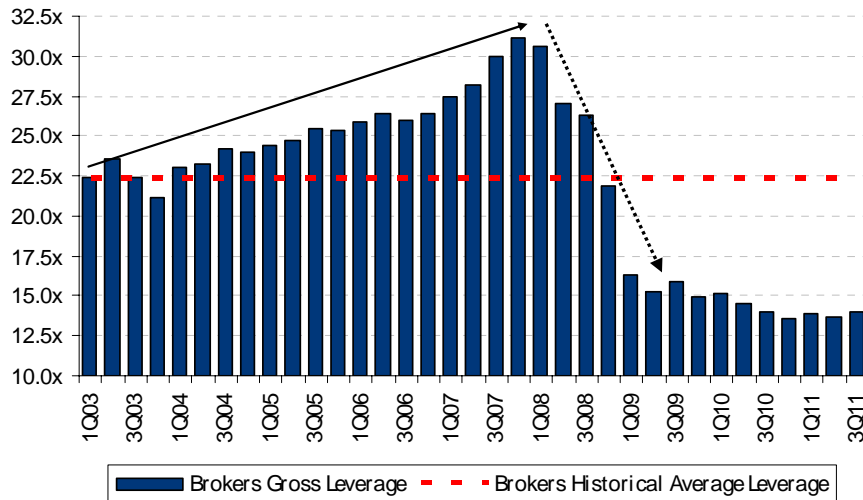


Source: Company reports, BofA Merrill Lynch Global Research



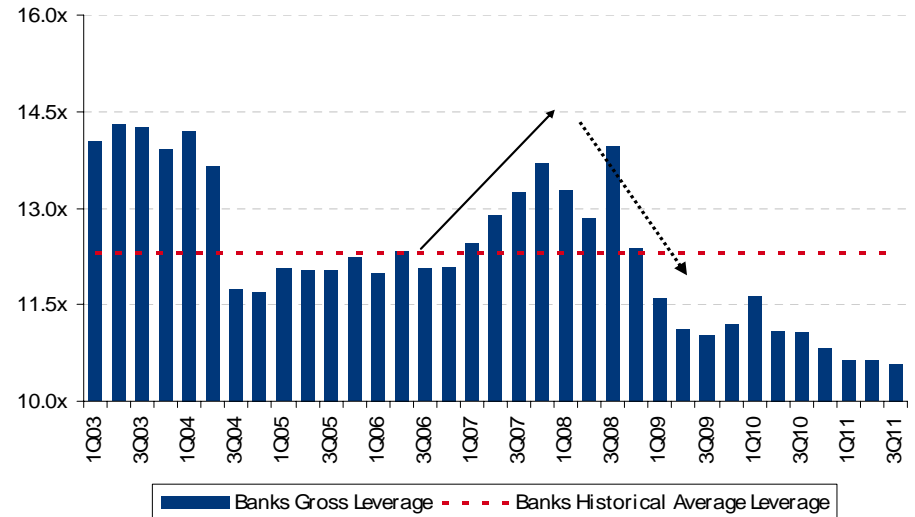
# Shrinking leverage

## Brokers



Source: Company Repts, BofA Merrill Lynch Global Research  
 Broker universe: GS, MS, BSC, ML, LEH (only includes GS and MS post 2008)

## Banks



Source: Company Repts, BofA Merrill Lynch Global Research  
 Bank universe: JPM, Citi, BAC, WFC  
 Note: 3Q04 decrease reflect JPM acquisition of Bank One

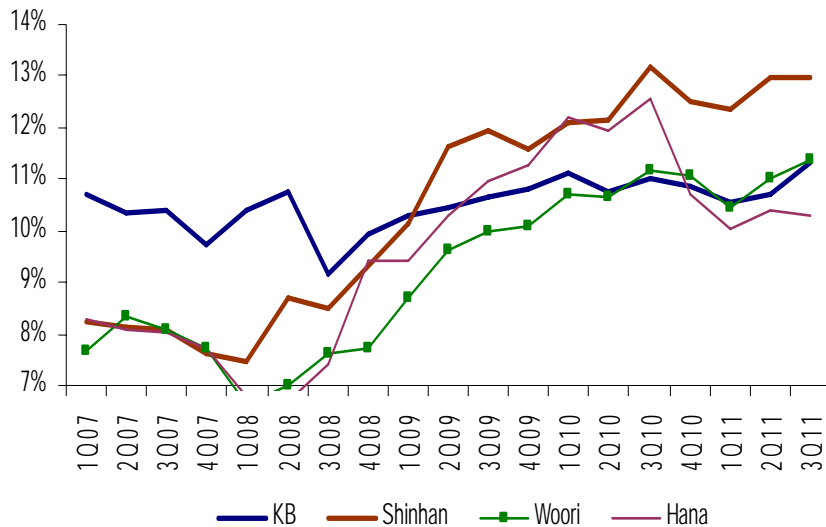
# Regulation

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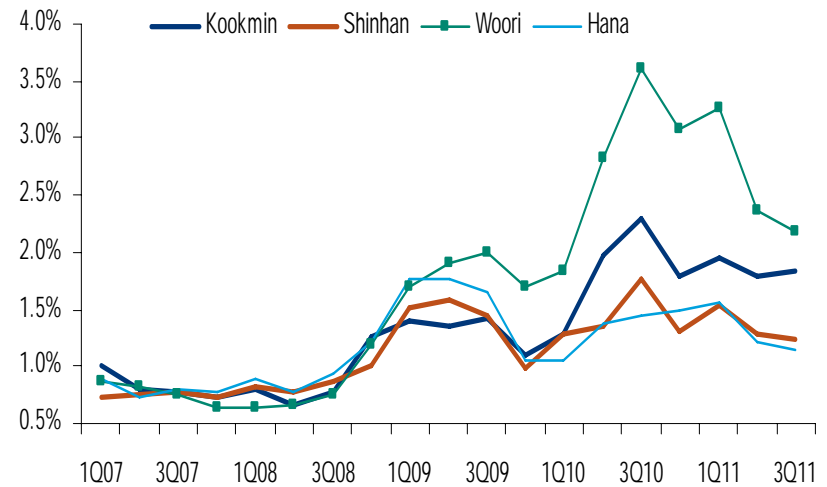
- Limits on prop trading (Volcker rule)
  - restricts revenues coming from positions taken at the request of clients
  
- Derivatives from OTC to a central clearing house, aimed for July 2012
  
- Credit retention requirements on securitization
  
- Resolution authority - living will
  
- Basel 3
  - Tier-1 Common ratio of 7%
  - Capital buffer of 1-2.5% for Global-Systemically Important Banks

# Snapshot of Korean banks

## Tier I ratios - in good shape



## NPL ratios - some divergence



Source: Company, BofA Merrill Lynch Global Research

Source: Company, BofA Merrill Lynch Global Research



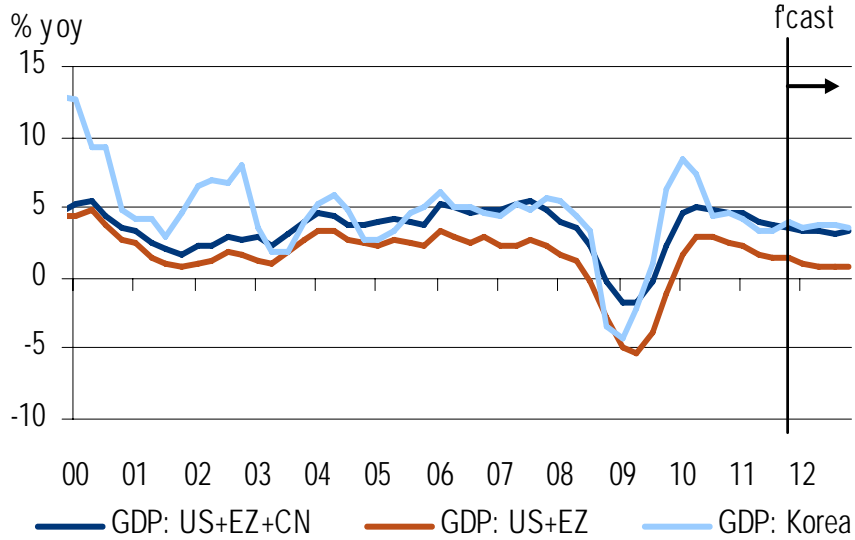
## Asia and Korea

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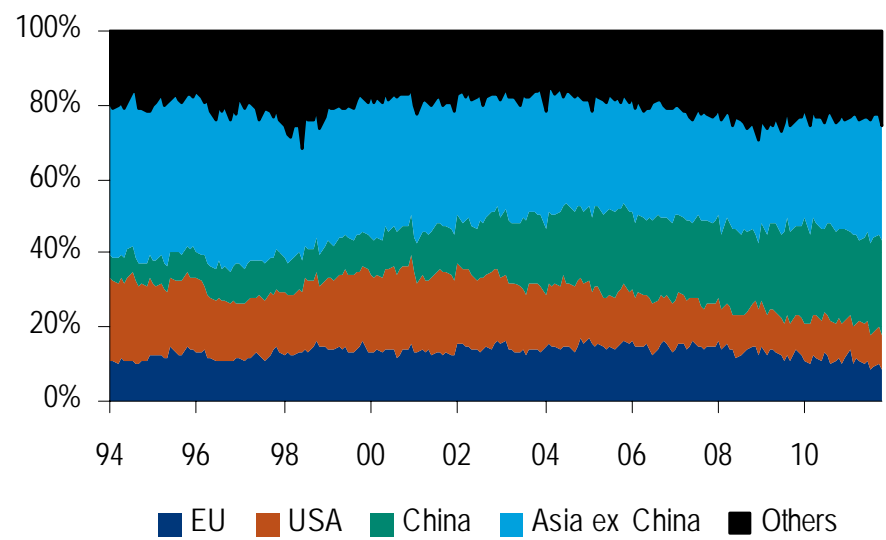
- Growth prospects relatively strong in Asia
- FX market - turbulent time
- Asian currencies under pressure
- Korea - good medium-term prospects

# Korea: Weak external outlook (three major trading partners)

## Growth in three majors and Korea



## Rising exports to China

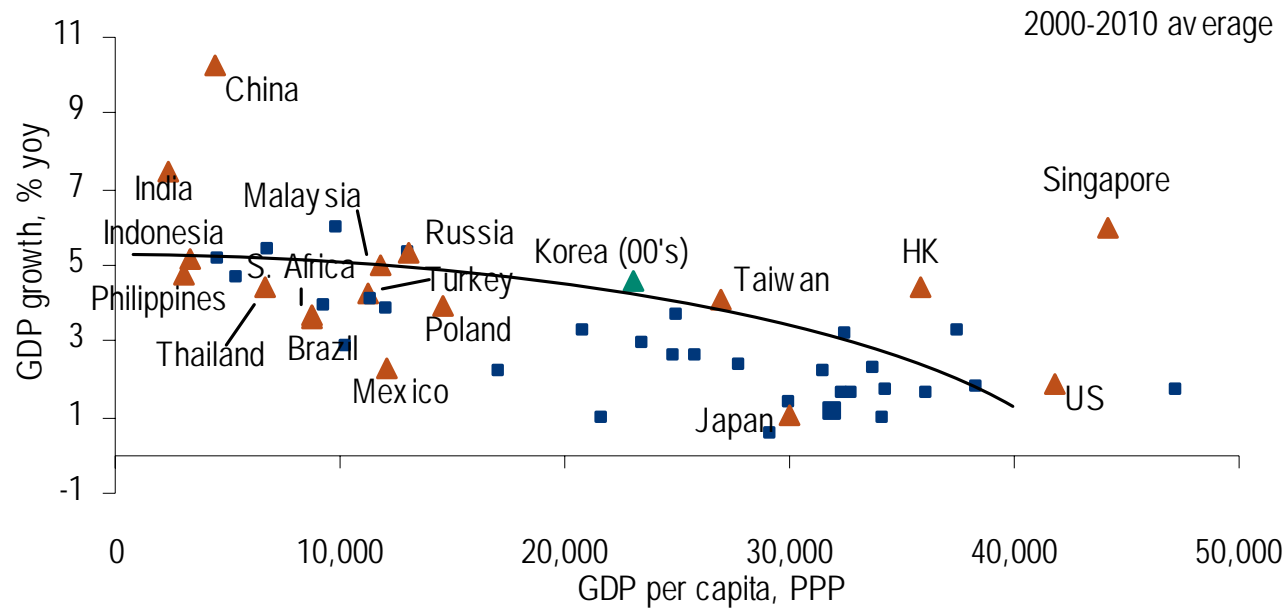


Source: BofA Merrill Lynch Global Research

Source: CEIC, BofA Merrill Lynch Global Research

# Competitive growth performance for the stage of development

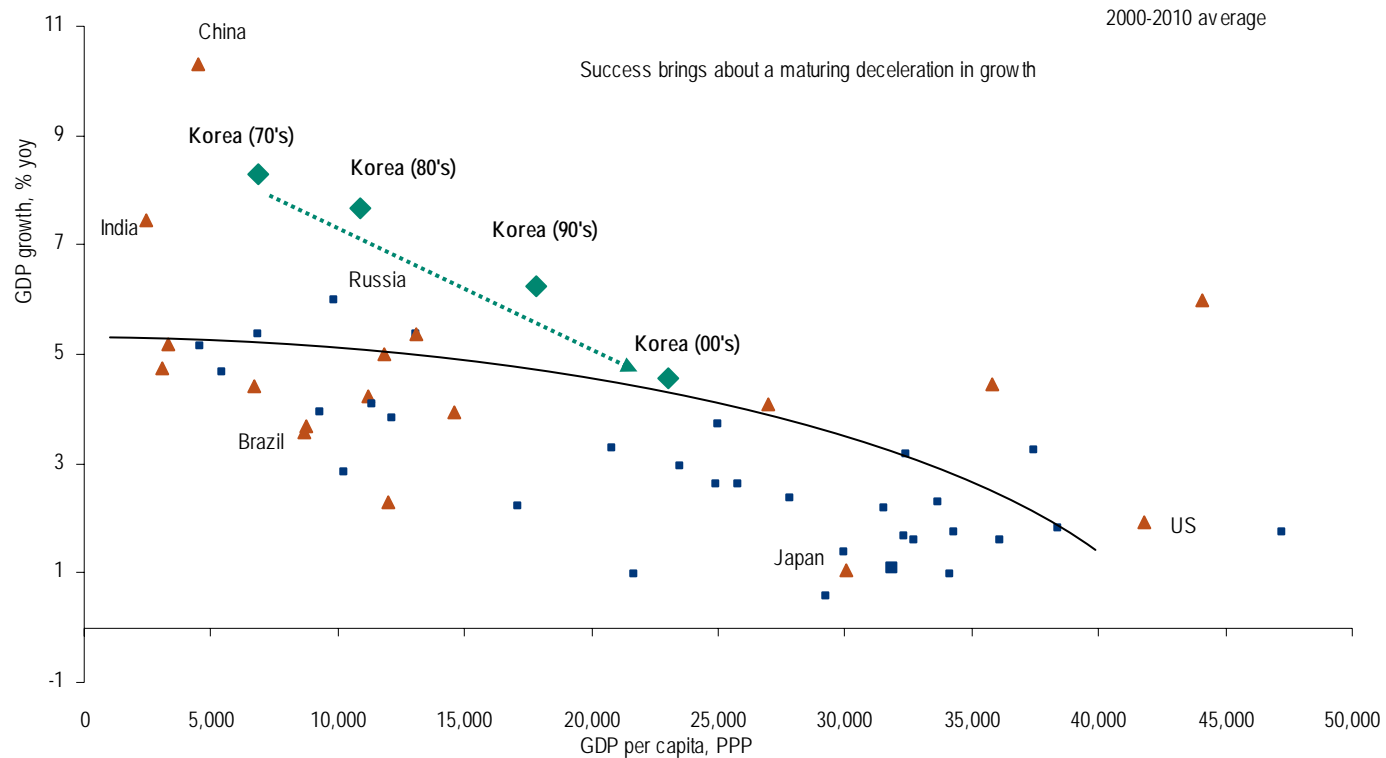
## Growth & Convergence Frontier



Source: Haver, BofA Merrill Lynch Global Research

# Korea's economic development

## Korea in the past placed on the G&C Frontier



Source: Datastream, BofA Merrill Lynch Global Equity Strategy

## Asia's Exposure to Europe

	Exports to Europe			*Exposure to European banks		
	US\$bn	% of Total Exports	% of GDP	US\$bn	% of GDP	% of FX reserves
Emerging Asia	571.7	16.8	5.2	1,382	12.6	29.5
China	334.7	21.2	5.6	264	4.4	9.3
Hong Kong	8.3	11.0	3.7	360	160.1	134.1
India	42.8	19.2	2.5	159	9.2	59.4
Indonesia	17.8	11.3	2.5	36	5.1	40.4
Korea	56.8	12.2	5.7	187	18.7	65.3
Malaysia	23.7	11.9	10	59	25.0	62
Philippines	7.1	13.7	3.8	15	8.2	28.4
Singapore	25.8	14.1	11.6	186	83.3	82.2
Taiwan	33.8	12.3	7.8	92	21.3	24.1
Thailand	21.0	10.8	6.6	23	7.3	14.1

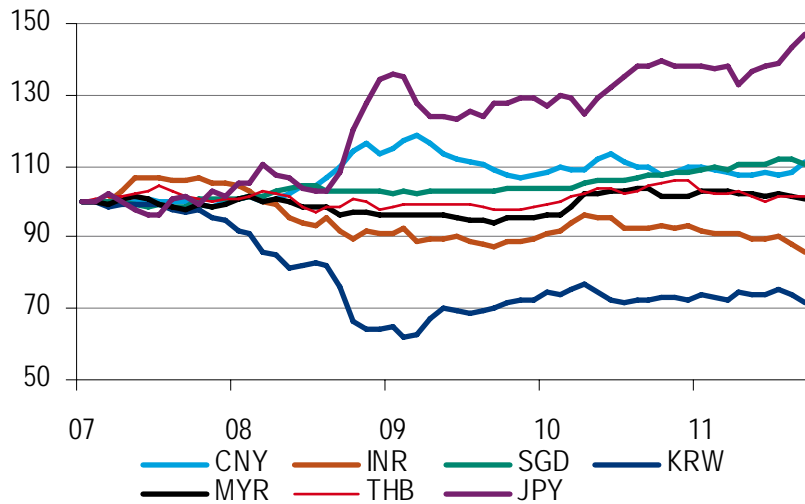
Note: Figures for exposure to European banks are as at June 2011.

Source: BofA Merrill Lynch Global Research, BIS, CEIC



# Volatile Exchange Rates

## Regional Exchange Rates



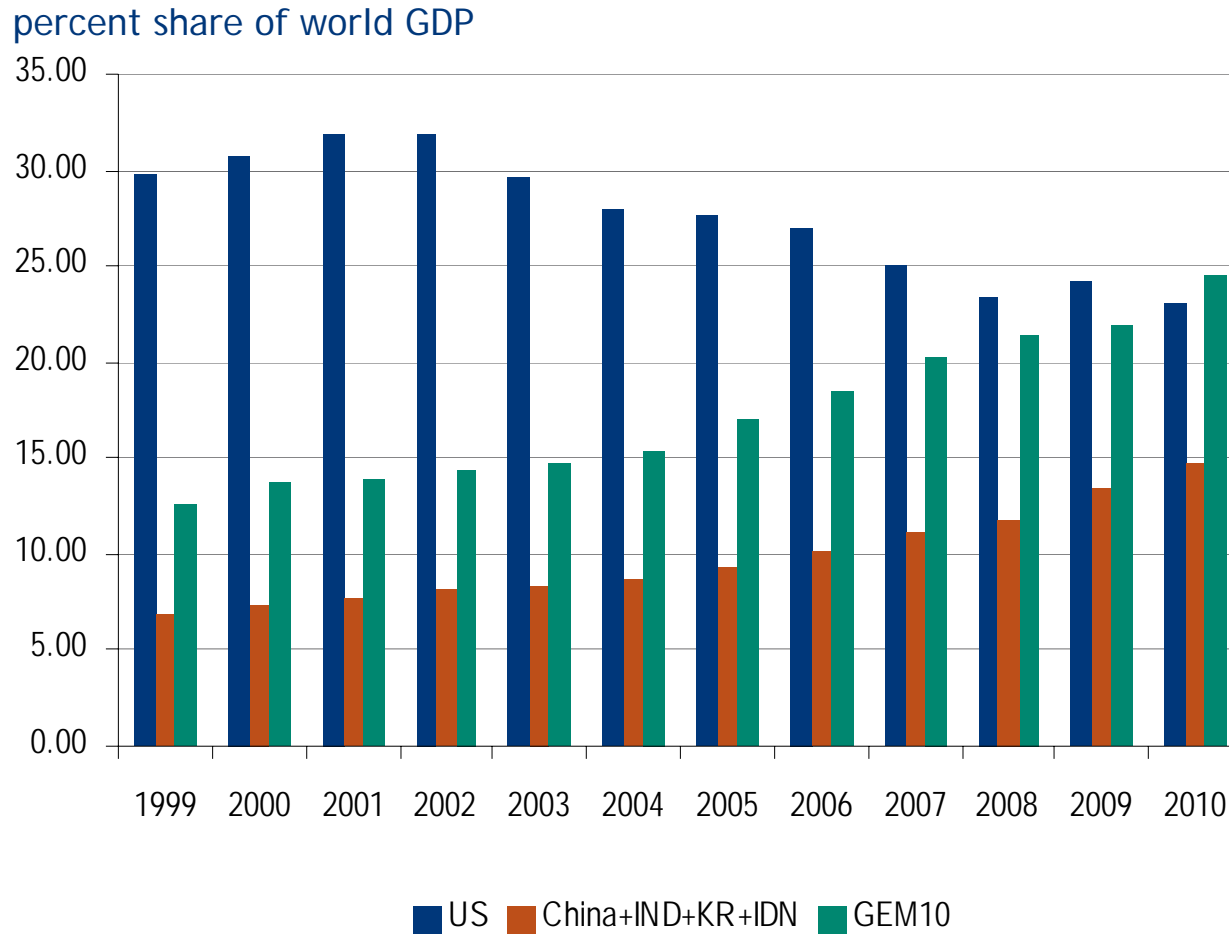
## Moderation in KRW volatility



Source: BIS, BofA Merrill Lynch Global Research

Source: Bloomberg, BofA Merrill Lynch Global Research

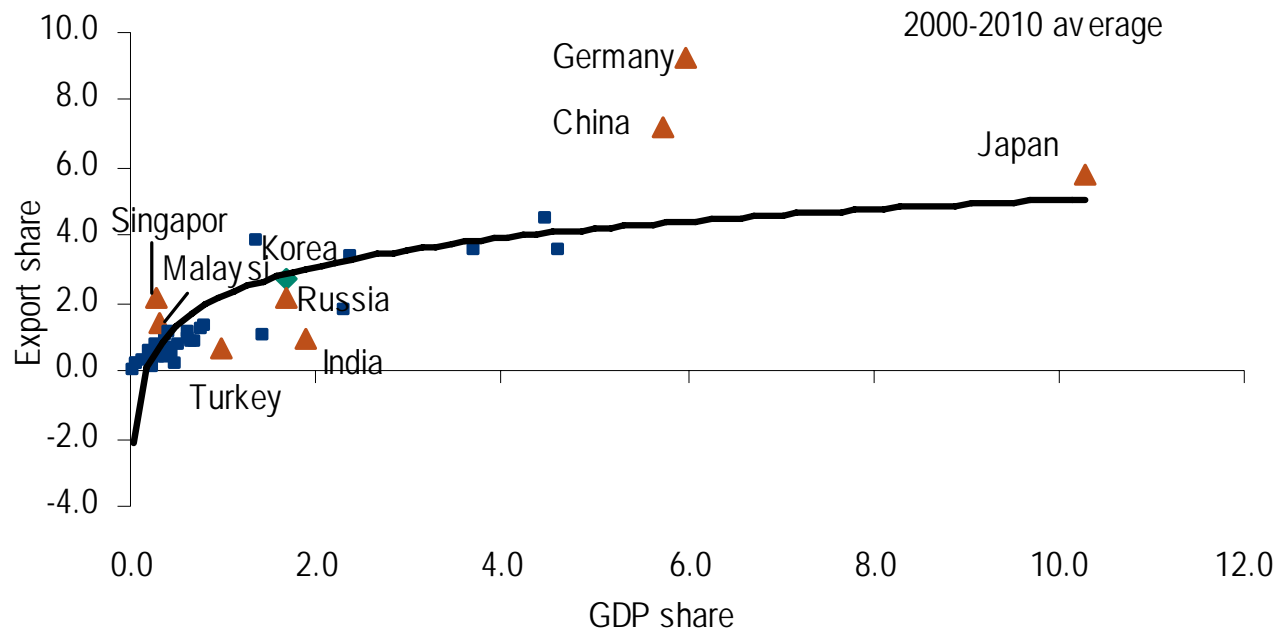
# Appearance of “decoupling” — shift in relative weights



Source: BofA Merrill Lynch Global Research calculations.

# Competitive market share in world exports

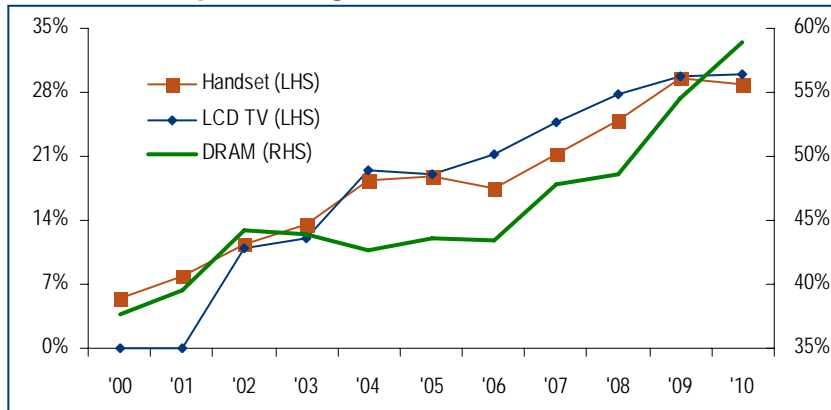
## Growth & Market Share Frontier



Source: Bloomberg, Haver, BofA Merrill Lynch Global Research

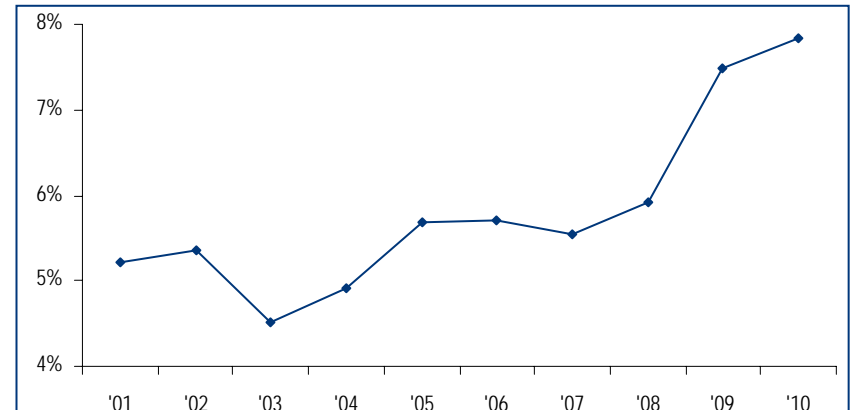
# Korean exporters' competitiveness

## Tech companies' global M/S



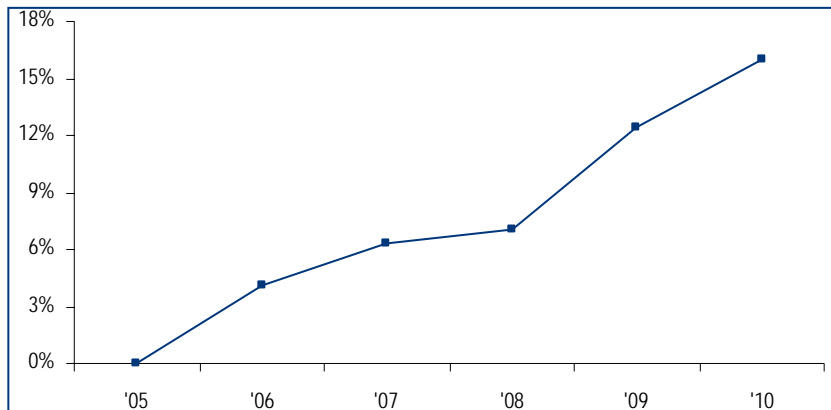
Source: Company, BofA Merrill Lynch Global Research calculation

## Auto companies' M/S



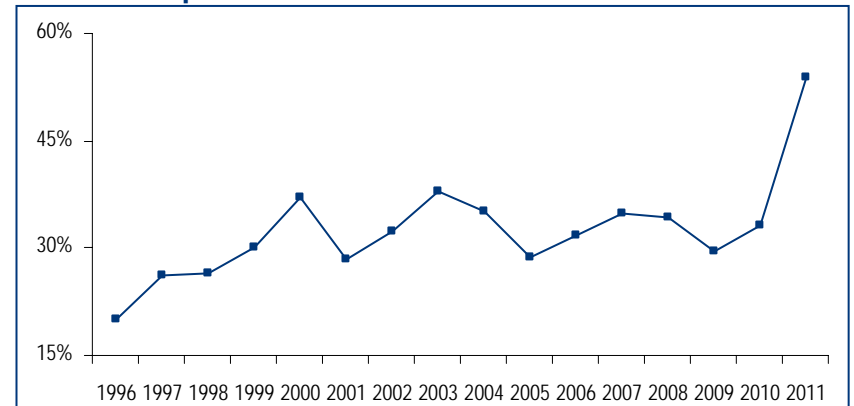
Source: Company, BofA Merrill Lynch Global Research calculation

## Construction companies' M/S



Source: Company, BofA Merrill Lynch Global Research calculation

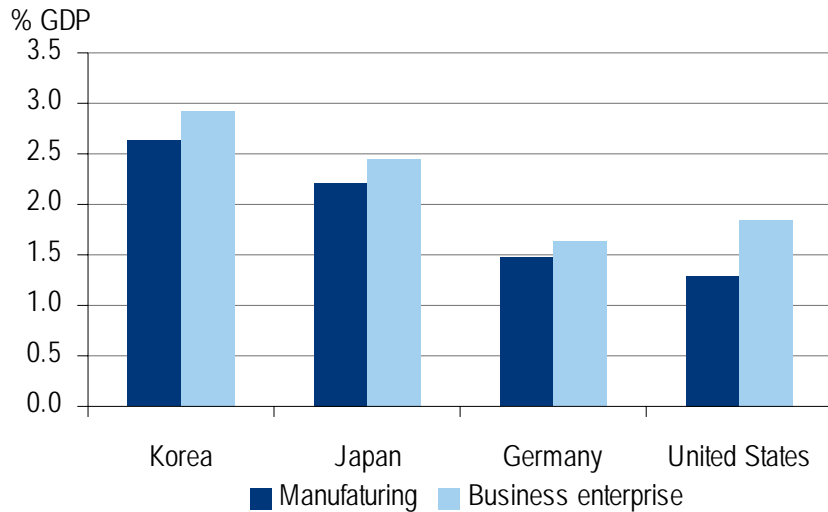
## Korea shipbuilders' new contract M/S



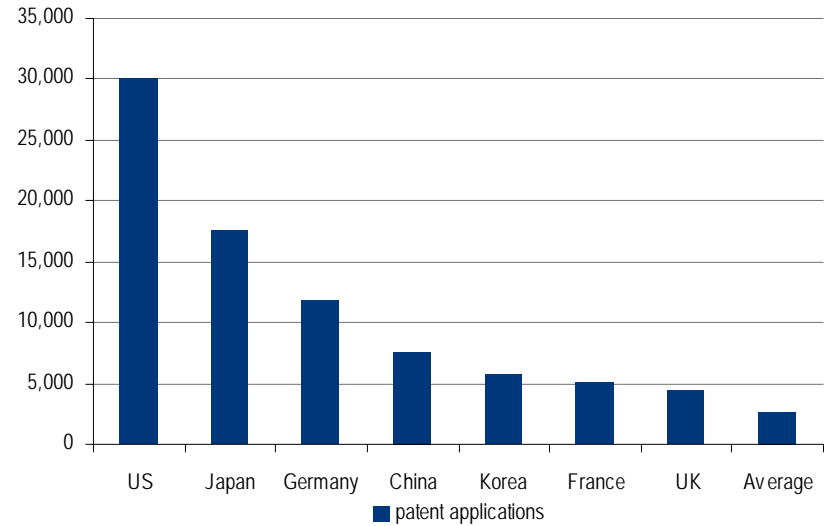
Source: Bloomberg

# Strong R&D bodes well for competitiveness prospects

## R&D investment (% of GDP, 2006)



## Patent applications (2009)



Source: CEIC, OECD, BofA Merrill Lynch Global Research

# Global competitive rankings

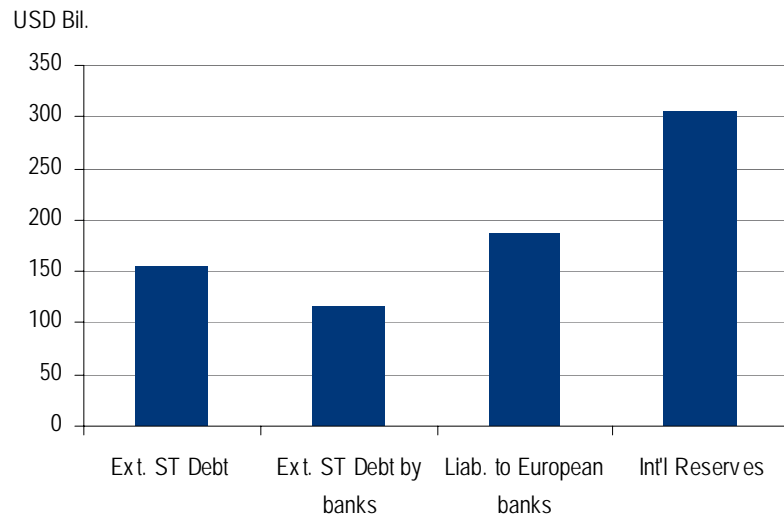
## The Global Competitiveness Index 2011-2012 rankings

	GCI 2011-2012		GCI 2010-2011	
Country	Rank	Score	Rank	Change
Switzerland	1	5.74	1	0
Singapore	2	5.63	3	1
Sweden	3	5.61	2	-1
Finland	4	5.47	7	3
United States	5	5.43	4	-1
Germany	6	5.41	5	-1
Netherlands	7	5.41	8	1
Denmark	8	5.4	9	1
Japan	9	5.4	6	-3
United Kingdom	10	5.39	12	2
Hong Kong SAI	11	5.36	11	0
:	:	:	:	:
:	:	:	:	:
Korea	24	5.02	22	-2

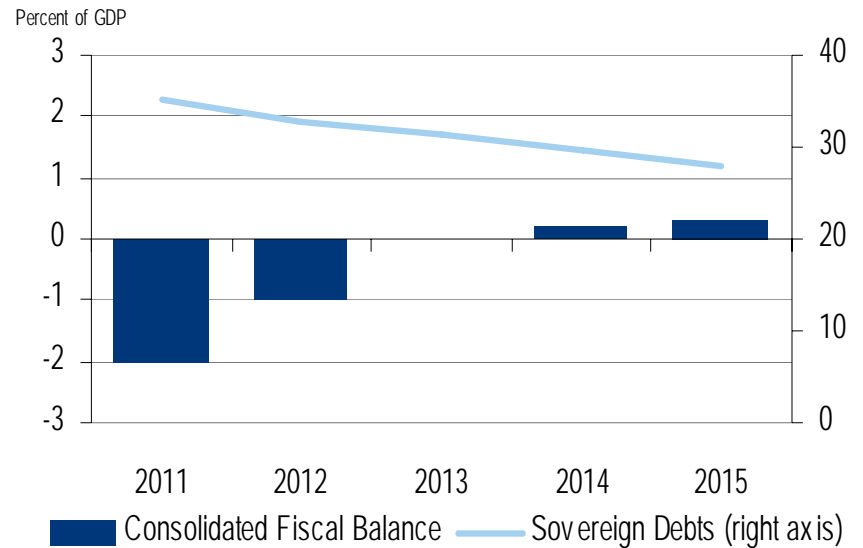
Source: 2011 World Economic Forum, BofA Merrill Lynch Global Research

# Buffers in Reserves and Fiscal

## Reserve coverage



## Public debt aimed at below 30% of GDP

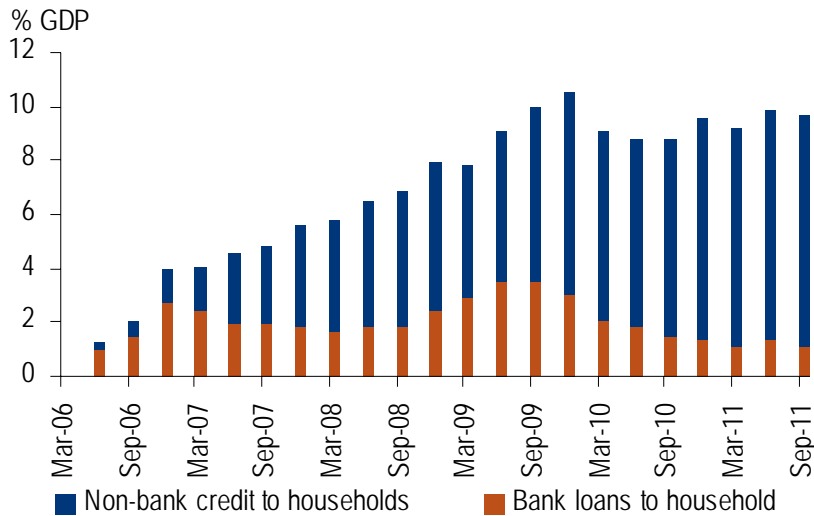


Source: CEIC, MOSF, BofA Merrill Lynch Global Research

Source: CEIC, BofA Merrill Lynch Global Research

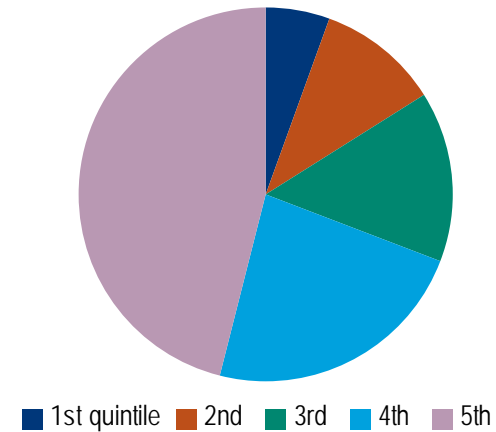
# Household leverage: manageable but calling for attention

## Increase in household loans since 2006



## Household debt distribution (2011)

Household debt distribution by income quintile



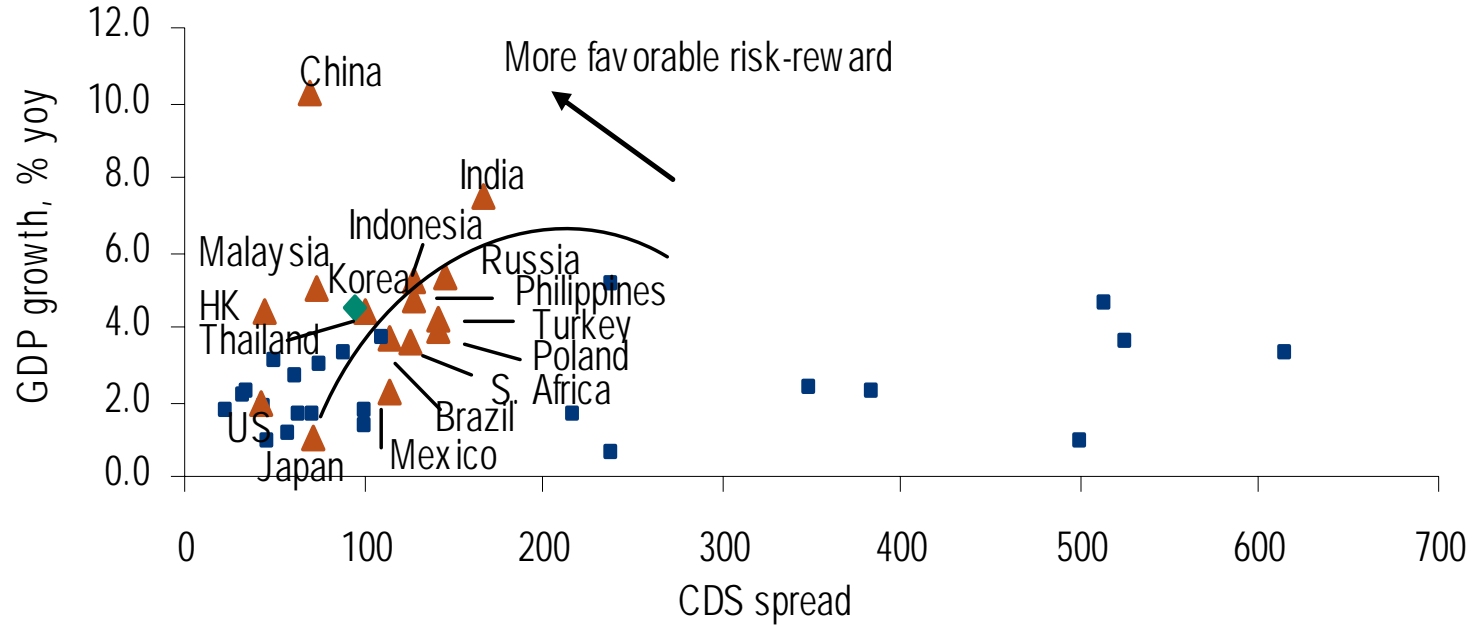
Source: CEIC, BOK, BofA Merrill Lynch Global Research

Source: CEIC, Korea NSC, BIS, BofA Merrill Lynch Global Research



# Low risk for the growth rate

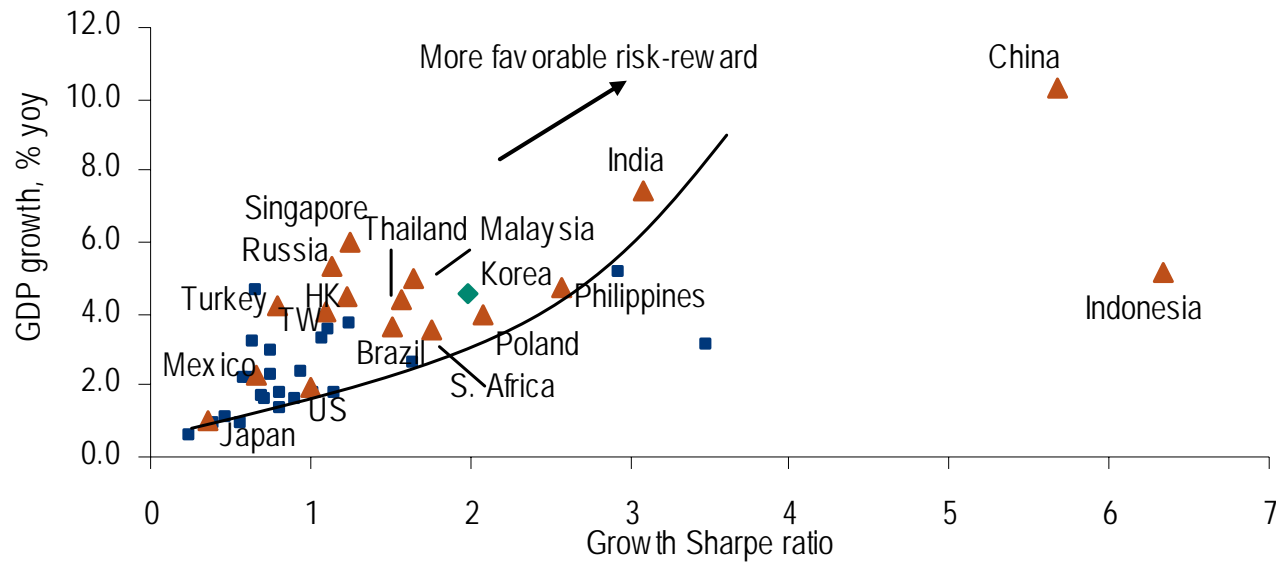
## Growth & Risk Frontier



Source: Bloomberg, Haver, BofA Merrill Lynch Global Research

# Growth with relatively low variability

## Growth Sharpe Ratio



Source: Bloomberg, Haver, BofA Merrill Lynch Global Research

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