

# Navigating through the Uncertainty: The Potential Impact of Ukraine-Russian Crisis

**BBVA Research**

**March 2014**

## Key Takeaways

- ❑ **Market impact so far limited** and confined to the EM Europe region
- ❑ **Europe is dependent on Russian Energy... but Russia needs Europe (constraint)**
- ❑ **Ukraine bank links with Europe are not specially high.**
- ❑ **Spill overs to the Russian Banking system could also spark into the EM Europe banking systems. The dependency model could facilitate the impact to the European banks** (Austria, Germany, Italy)
- ❑ **Uncertainty about potential scenarios is still high but there is no economic incentives for Russia** for a crisis spiral
- ❑ There are **several transmission channels** of the crisis. The **trade & energy** channel is **relatively benign**. We would need to enter into **Global Risk Aversion and Russian Meltdown to really feel the pain**
- ❑ **EM Europe has particular risks among the Emerging Markets** vulnerability. The **Currency Mismatch (FX denominated loans)** problem poses special risks to the region

# Index

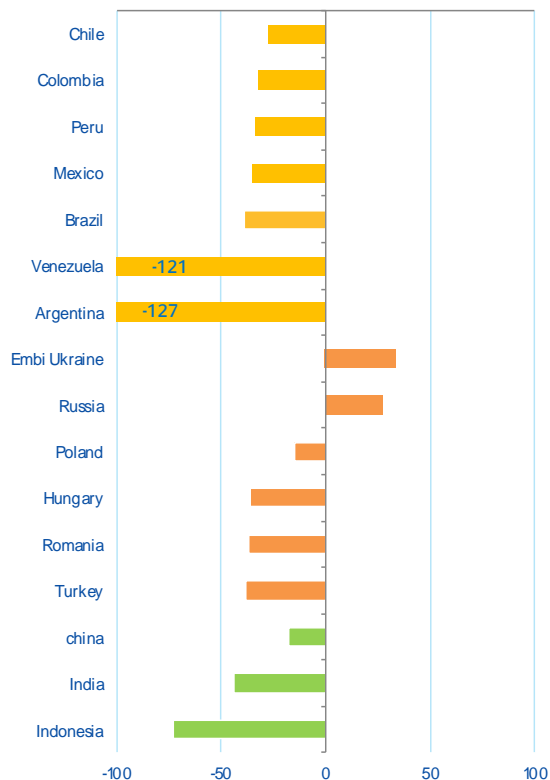
- 1. The Market Reaction to the crisis**
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# Ukraine-Russia crisis “Spill Overs” still muted and highly concentrated in EM Europe...

Market synchrony to the event cannot be called yet contagion but there is enormous room to the downside...

**EMBI Global spread  
(change since Feb 4, bps)**

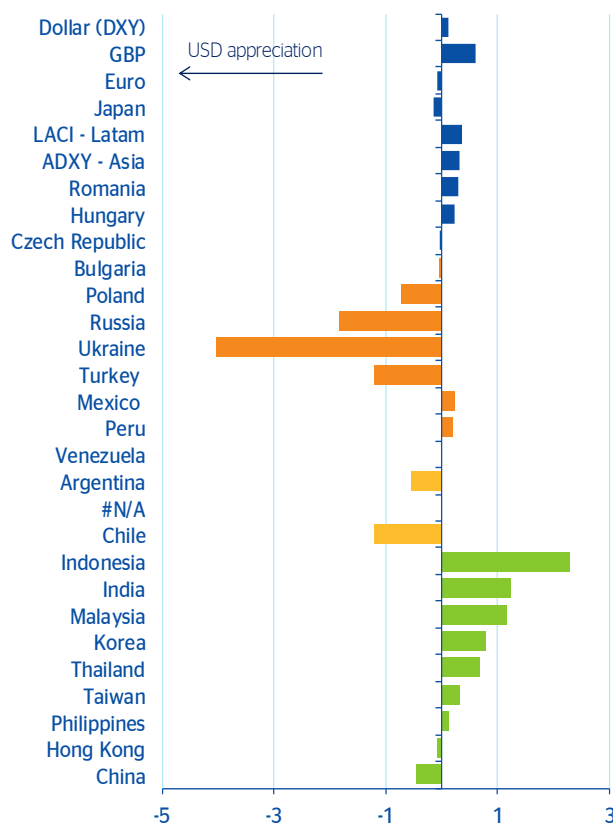
Source: Haver and BBVA Research



**FX vs. USD**

Porcentual change since Feb 21)

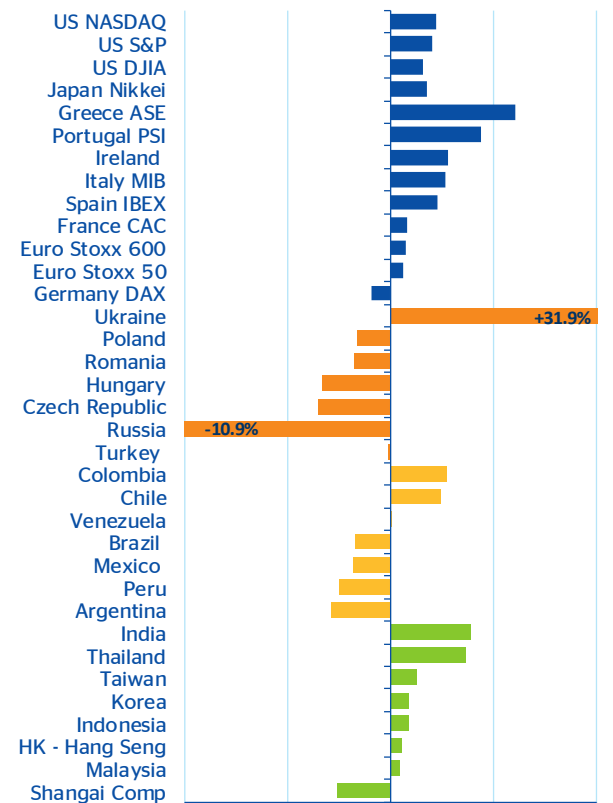
Source: BBVA Research and Bloomberg



**Equity markets**

(change since Feb 21, bps)

Source: Bloomberg and BBVA Research

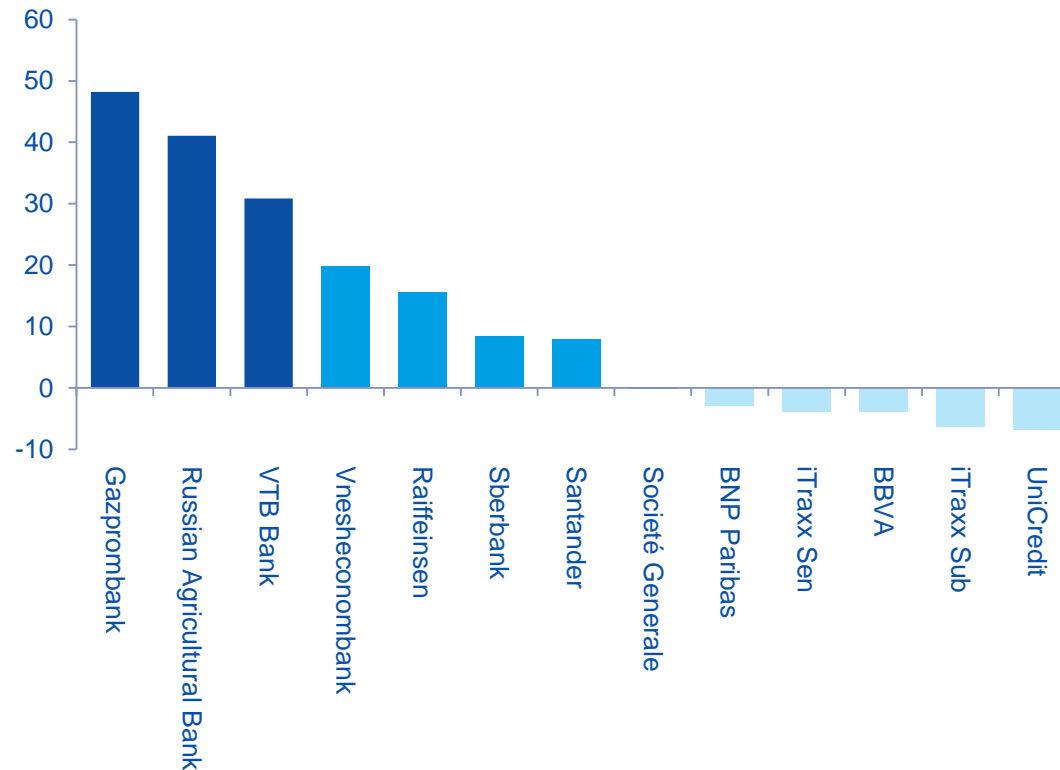


# Some Russian and Western European Banks already affected but mildly..

## Banks CDSs

(change since 23 Feb)

Source: Bloomberg, DataStream & BBVA

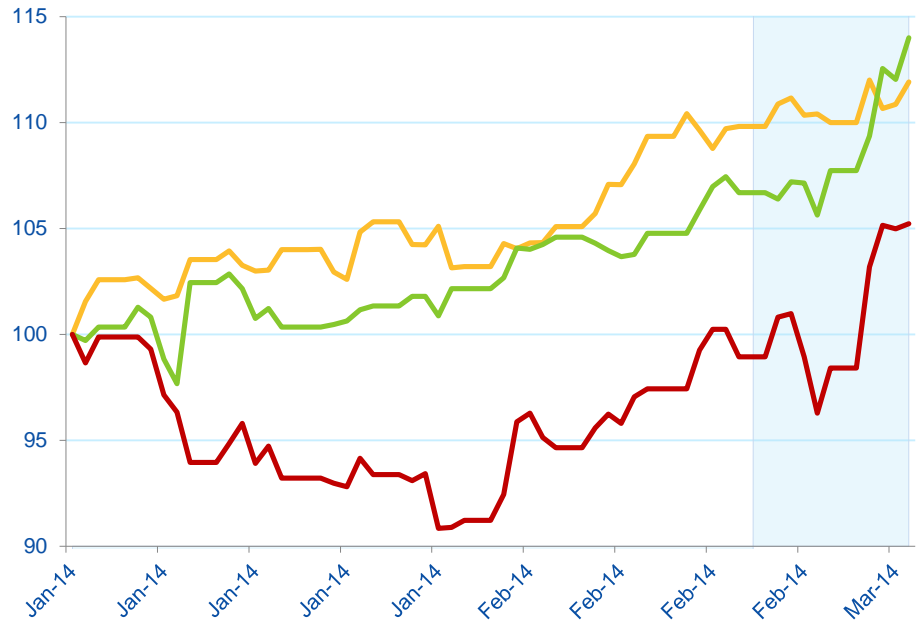


So far, food and gold prices increases higher than energy...

### Commodities : Food Prices

(normalized as Jan2014=100)

Source Bloomberg and BBVA Research

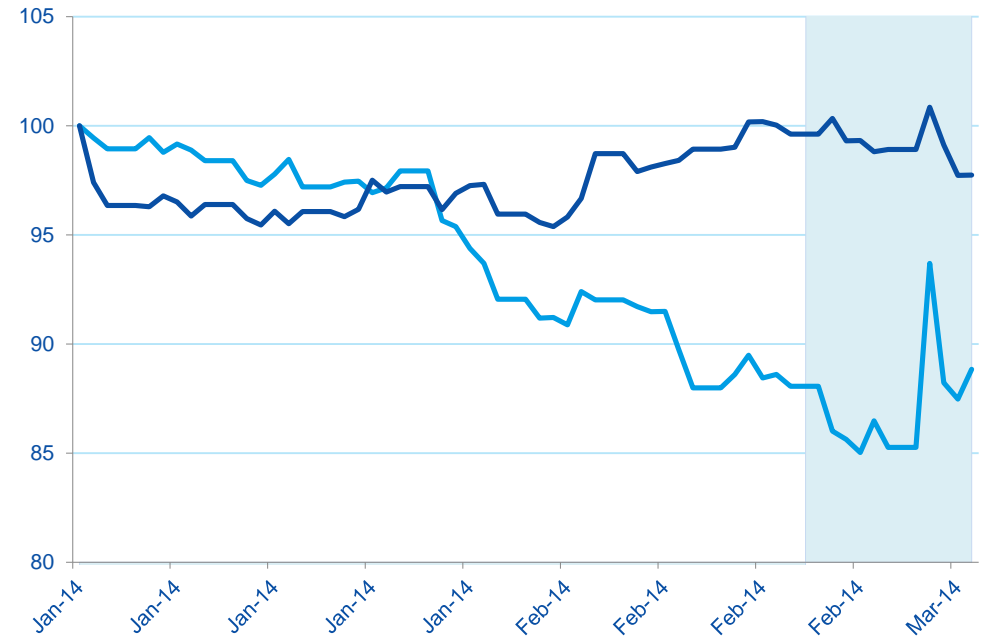


Yanukovich ousted Gold Corn Wheat

### Commodities : Energy Prices

(normalized as Jan2014=100)

Source Bloomberg and BBVA Research

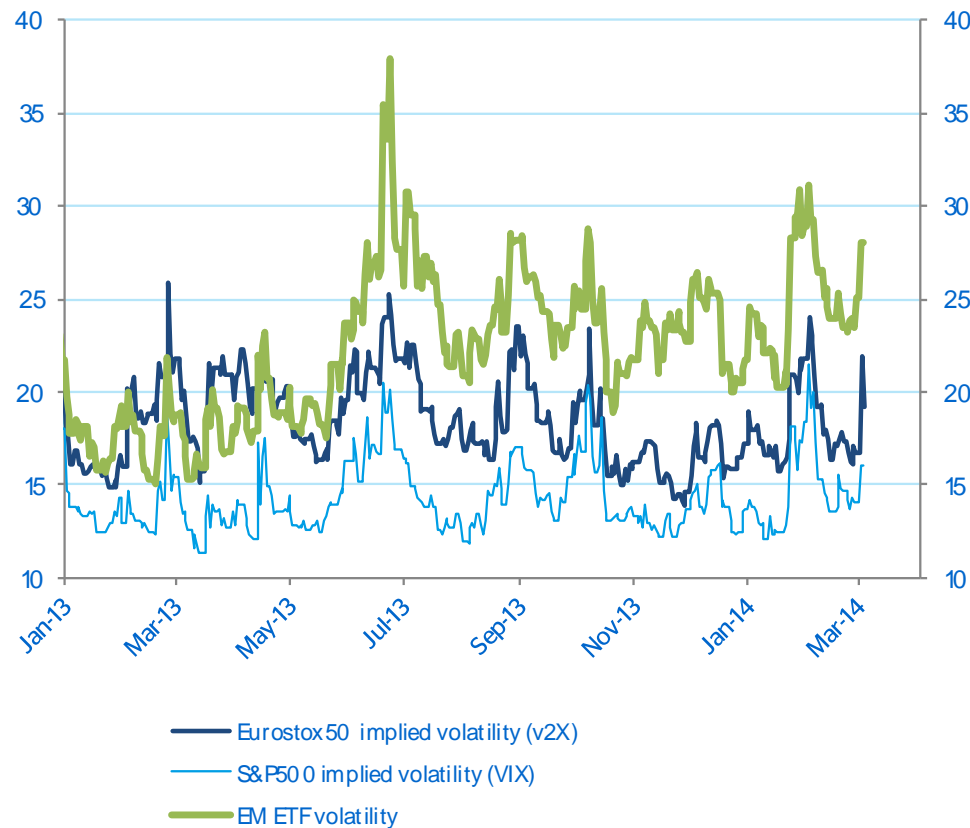


Yanukovich ousted Natural Gas Brent

# Global Risk Aversion has reacted somehow... but at different levels ...

## Equity implied volatility

Source: Bloomberg & BBVA Research through EPFR data

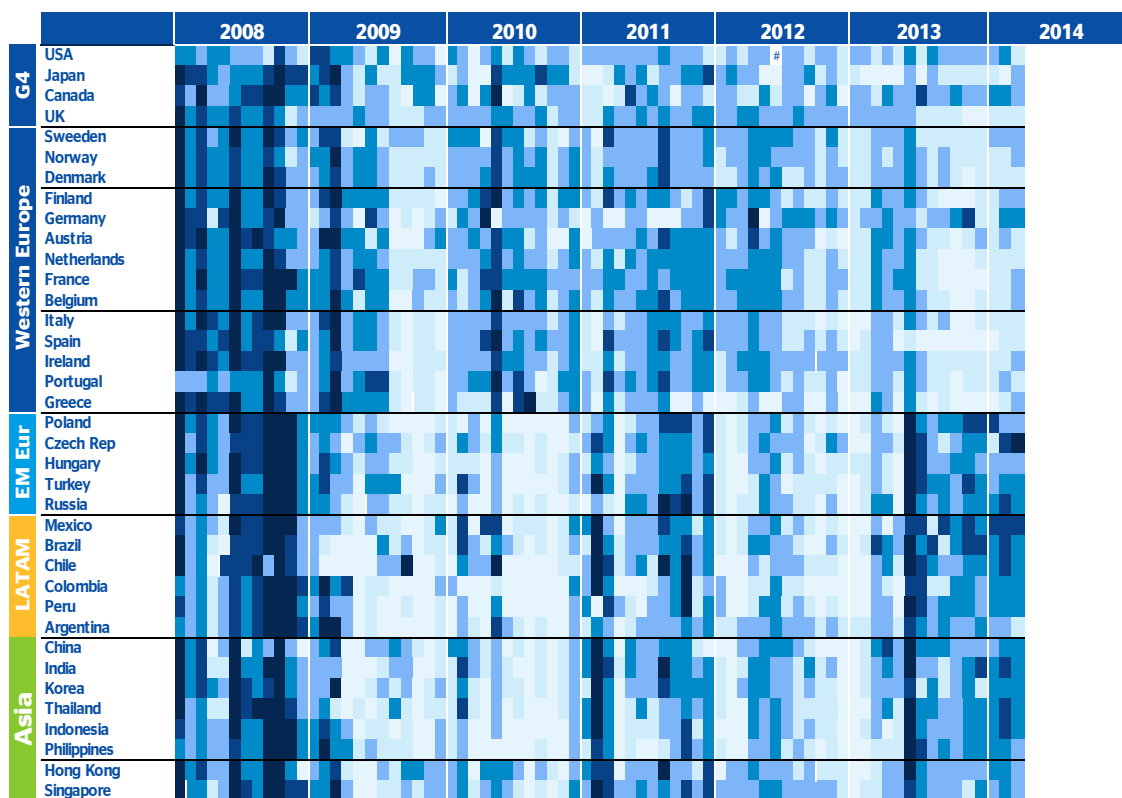


# No serious regional capital flows reversals... Idiosyncratic Factors playing a higher role now than before...

## BBVA Country Portfolio Flows Map

(Country Flows over total Assets)

Source: BBVA Research through EPFR data

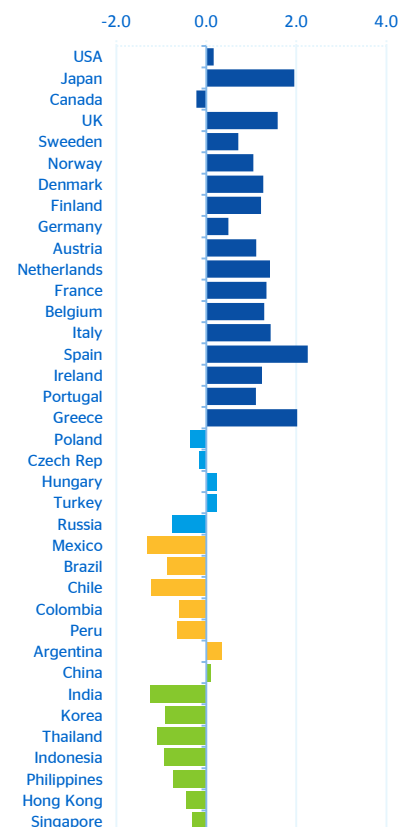


Sharp Capital Outflows (below -2 %)  
 Strong Capital Outflows (between -1 % and -2 %)  
 Moderate Capital Outflows (between 0 and -1 %)  
 Moderate Capital Inflows (between 0 and 1 %)  
 Strong Capital Inflows (between 1 % and 2 %)  
 Booming Capital Inflows (greater than 2 %)

## Portfolio Flows Jan-Feb 14

(country Flows over Total Assets, average)

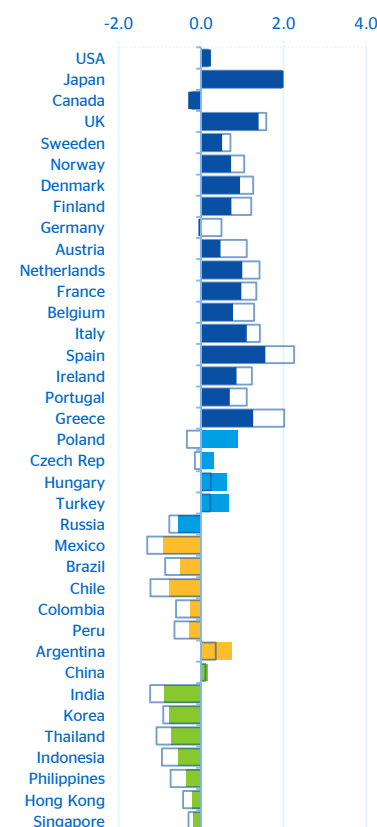
Source: BBVA Research through EPFR



## Idio. Factors behind Jan-Feb 14

(country Flows over Total Assets, average)

Source: BBVA Research through EPFR





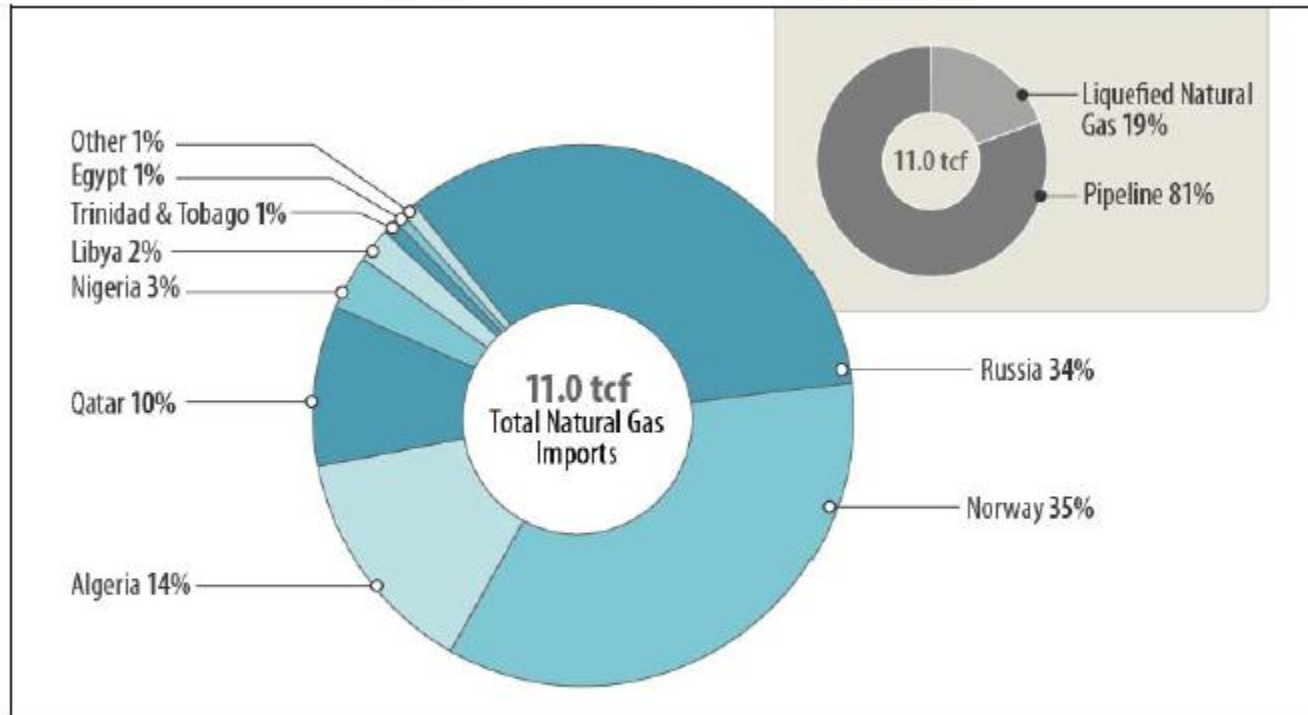
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# Europe depends on Russian Gas...but Russia has something to loose in the crisis...

## EU Natural Gas Imports

Source Europe's Energy Security: Options and Challenges to Natural Gas Supply Diversification



Source: BP Statistical Review of World Energy 2013.

Notes: The United States re-exported a minimal amount of LNG to Europe in 2012 and is included in Other. The percentages do not include imports from one EU country to another. Units are trillion cubic feet (tcf).

Russia has more stake to loose than Europe in that case as 61% of total Russian oil exports flow into Europe but Europe relies only partially on Russia (30%)

A big part of the Gas is flowing through Ukraine but there are also alternative routes for Russian Gas ...

Russia has more stake to loose than Europe in that case as 61% of total Russian oil exports flow into Europe but Europe relies only partially on Russia (30%)



North Stream

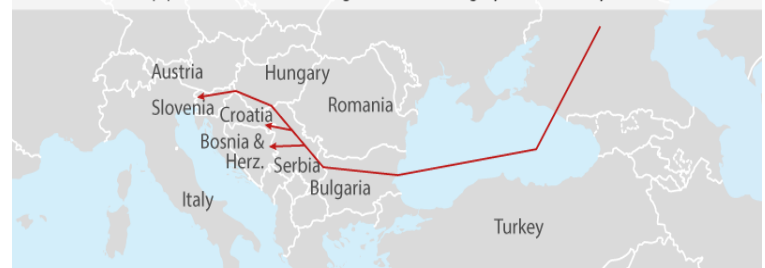
South Stream

Nabucco & Others

**Nord Stream pipeline: Map**



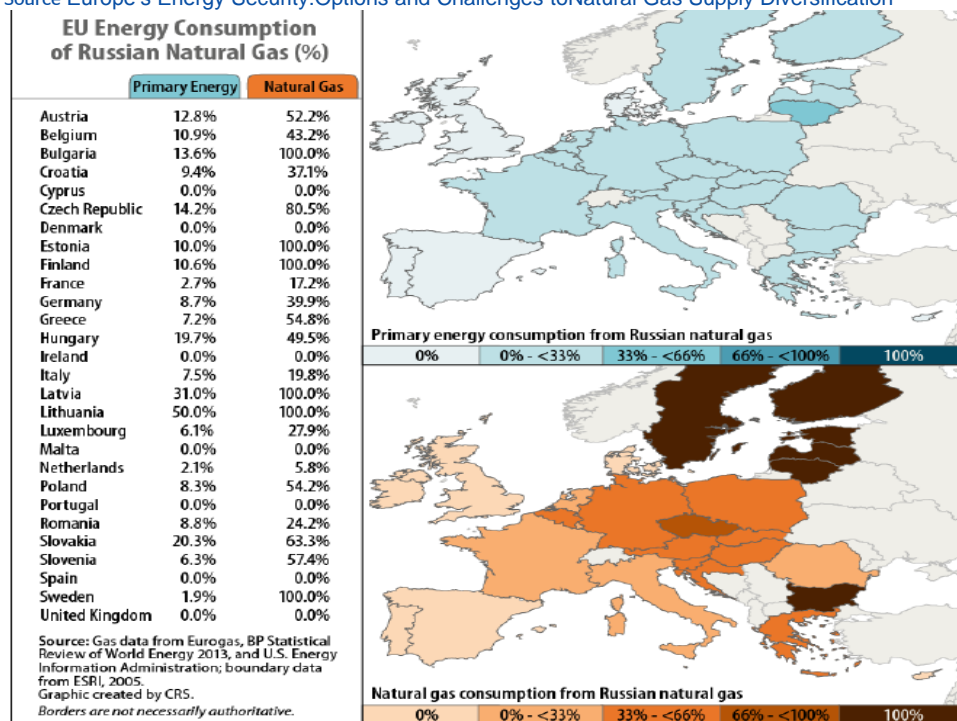
**South Stream pipeline route (Russia-Bulgaria-Serbia-Hungary-Slovenia-Italy)**



Baltics and Emerging Europe would be the most affected...  
but central europe would feel some pain...

## EU Energy Dependence of Russian Gas\*

Source Europe's Energy Security: Options and Challenges to Natural Gas Supply Diversification



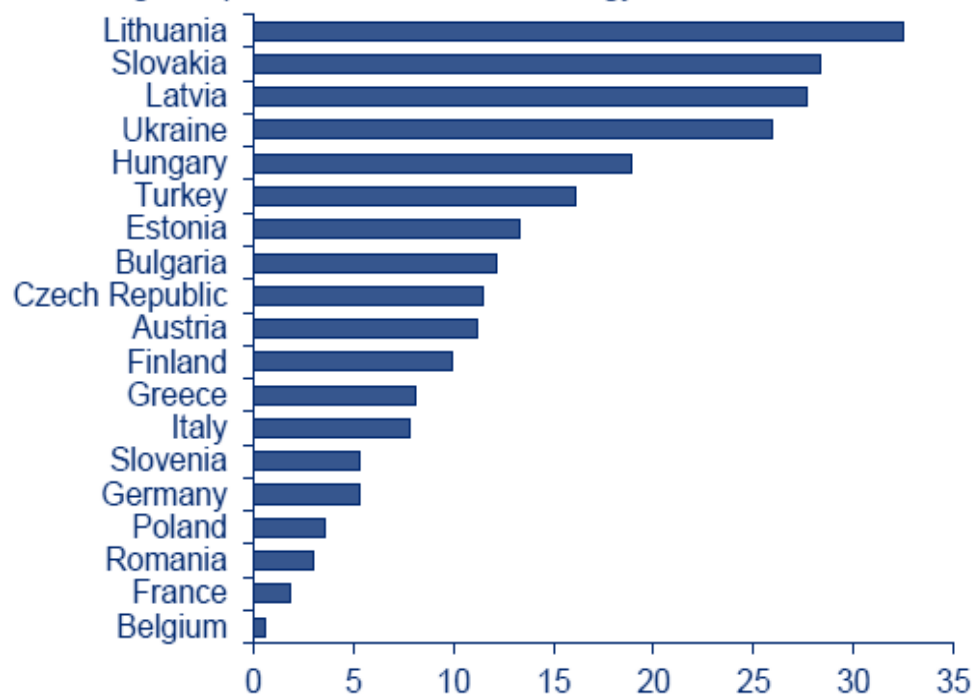
Source: CRS Graphics compiled this graphic.

Notes: For primary energy, which is the base source of energy used to produce electricity and perform other work, Russian natural gas does not comprise greater than 50% for any EU country.

## World Russian Gas Dependence

Source Eurostat BP

Russian gas imports as % of domestic energy use



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The crisis can shift the focus to West Europe Banks links with the region and their particular “banking” model...

### IIP Relative Matrix: Share of Liabilities by issuer and borrower

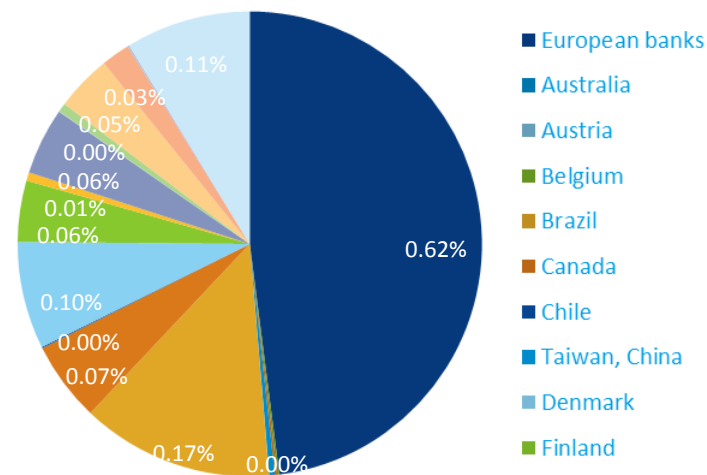
**-% of the liabilities issued** Source: BIS Table 9B: Consolidated foreign claims of reporting banks - immediate borrower basis

Issuer/Borrower	EUR	USA	UK	JAP	Systemic Relevance*
EUR	60%	10%	7%	6%	44%
SWISS	43%	9%	13%	4%	2%
UK	52%	17%		6%	10%
USA	57%		18%	20%	27%
CAN	32%	22%	18%	11%	2%
JAP	31%	29%	9%		4%
O.DEV	49%	7%	16%	16%	19%
China	32%	8%	19%	7%	3%
POL	86%	6%	4%	2%	1%
RUSS	73%	13%		6%	1%
TURK	72%	11%		4%	1%
UKR	89%	6%			0%

(\*as % over Total foreign claims)

### Russia: Borrowing Structure and Systemic Relevance\*

Source: BIS, (\*) calc as % of total world liabilities

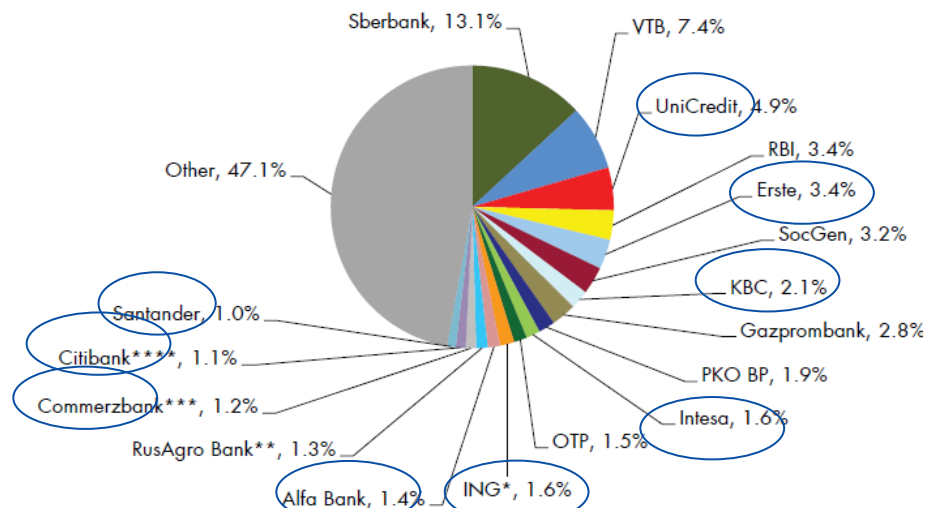


# The crisis can shift the focus to West Europe Banks links with the region and their particular “banking” model

## Market Share of Foreign Banks in Central Eastern Europe

(% total assets)

Source:Raiffeisen



CEE: PL, CZ, SK, HU, SI, IT, LV, EE, RO, BG, HR, RS, MD, BH, AL, KO, MK, RU, UA, BY, KZ

\* CZ, SK, RO, RU, UA as of 31 December 2011

\*\* as of 30 June 2012

\*\*\* as of 31 December 2011

\*\*\*\* CZ, HU, RO, BG, RU as of 31 December 2011

Source: Company data, national central banks

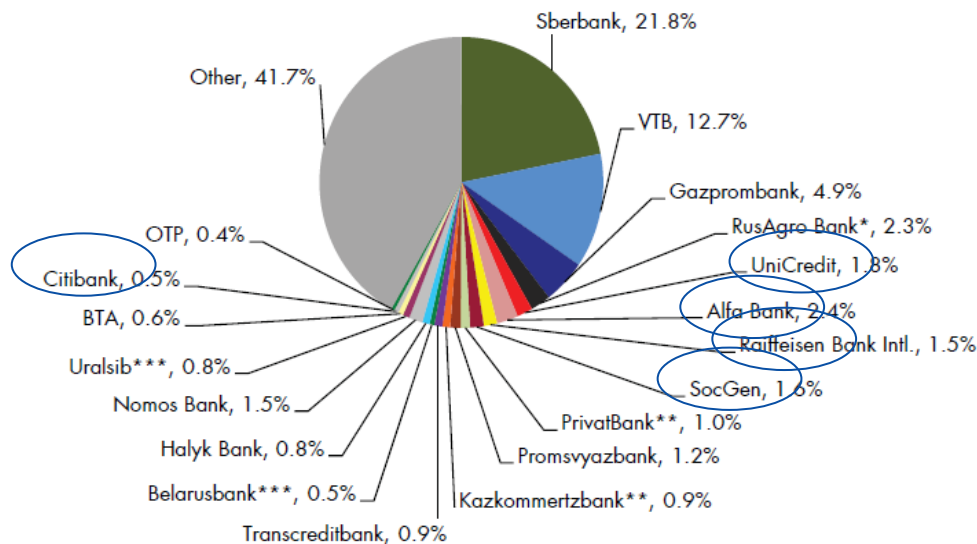
○ US and West European Banks

## Market Share of Foreign Banks in CIS countries

(% total assets)

Source:Raiffeisen

Market shares in CIS (in % of total assets, 2012)



CIS: RU, UA, BY, KZ

\* as of 30 June 2012

\*\* as of 30 September 2012

\*\*\* as of 31 December 2012

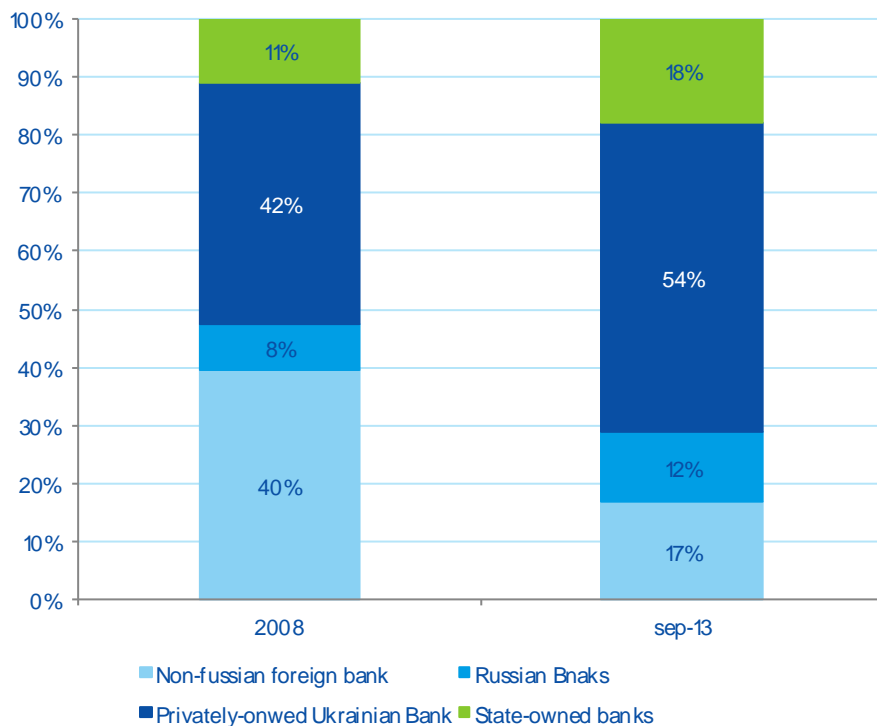
Source: Company data, national central banks



# But Russian Banks will be affected too...

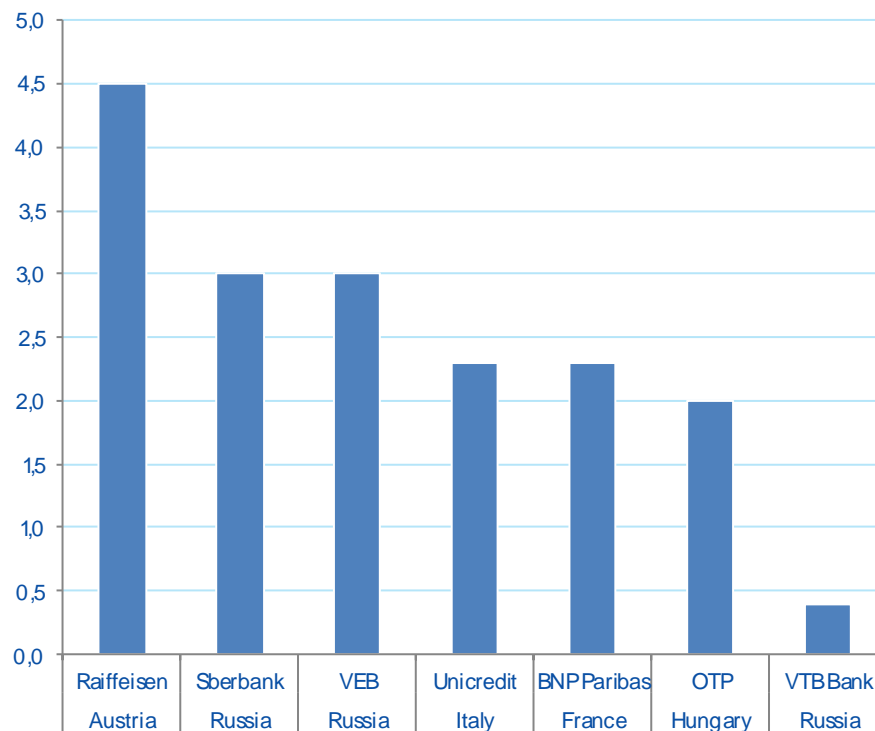
## Market structure of Ukraine's banking sector

Source: Raiffeissen, SNL and each bank



## Direct exposure of foreign banks to Ukraine (€bn)

Source: Raiffeissen, SNL and each bank

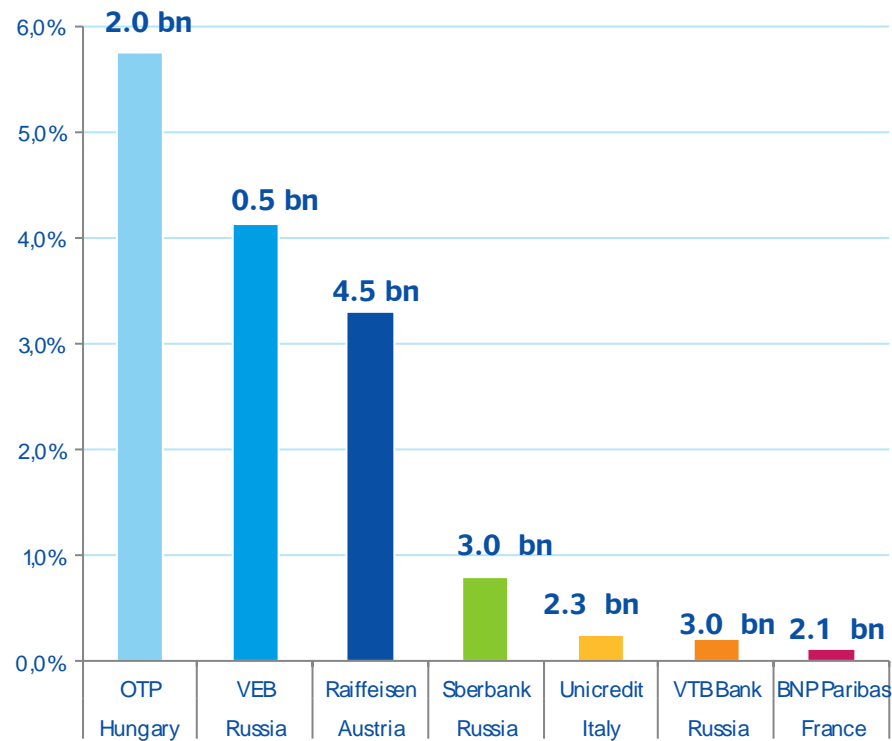




# But Russian Banks will be affected too...

## Bank exposure to Ukraine (as % of 2012 total asset of each bank)

Source: Raiffeissen, SNL and each bank



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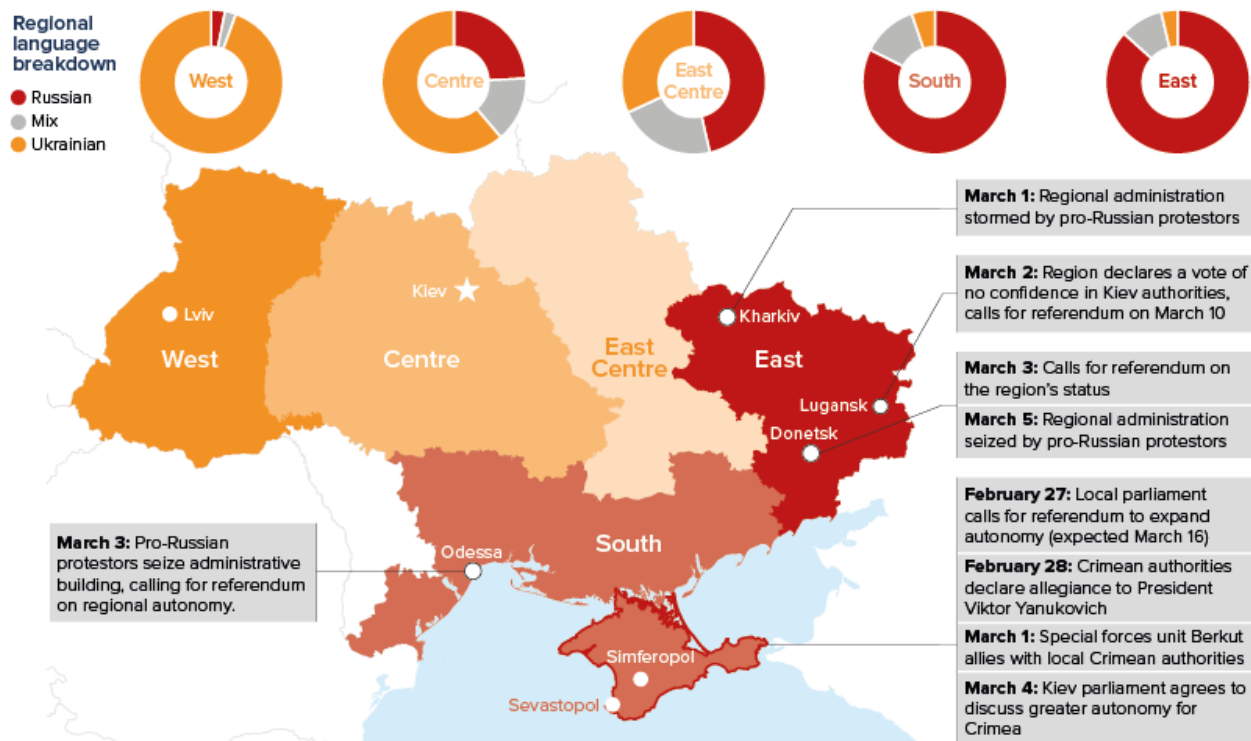
## Inside the uncertainty: Some alternative scenarios

- **A negotiated solution (Transitory Impact)**
- **Conflict confined to Crimea (*Risk Aversion*)**
- **Military escalation (*Risk Aversion + Russian Meltdown*)**

# Inside the uncertainty: Some alternative scenarios

## Ukraine-Russia Affairs

Source: Oxford Analytica



- Ukraine is unlikely to split; a loose federation arrangement is more likely.
- Crimean referendum on autonomy might encourage other south-eastern regions to reassess their status within Ukraine.
- Moscow might intervene should south-eastern protests escalate and result in significant casualties.

# Ukraine-Russia potential “Spill Overs” through different channels..

**Military  
intervention  
Russia & Ukraine**

*Cost Push  
Channel*

**Energy &  
Food**

**Rise in Gas  
& Oil Prices**

**Food and Gold price rises  
Metal Prices drops**

*Confidence &  
Global Risk  
Channel*

**Onfidence & Risk  
Aversion**

**Stock Market  
Drops**

**Risk premiums  
Rise**  
(US-EZ-Jap bond yields drop)

**Capital OutFlows  
To Safe Havens**

**GDP Growth & Recovery  
Expectations Drops**

**Inflation  
Rises**

*Policy &  
Currency  
Mismatch  
Channel*

**External &  
Monetary**

**US\$ strengthen**

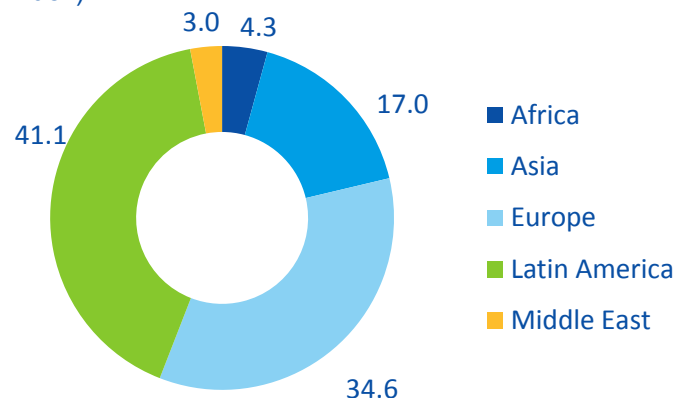
**EM Currencies Depreciation  
+ Monetary Response**

**EM Currencies Depreciation  
+ Currency Mismatch**

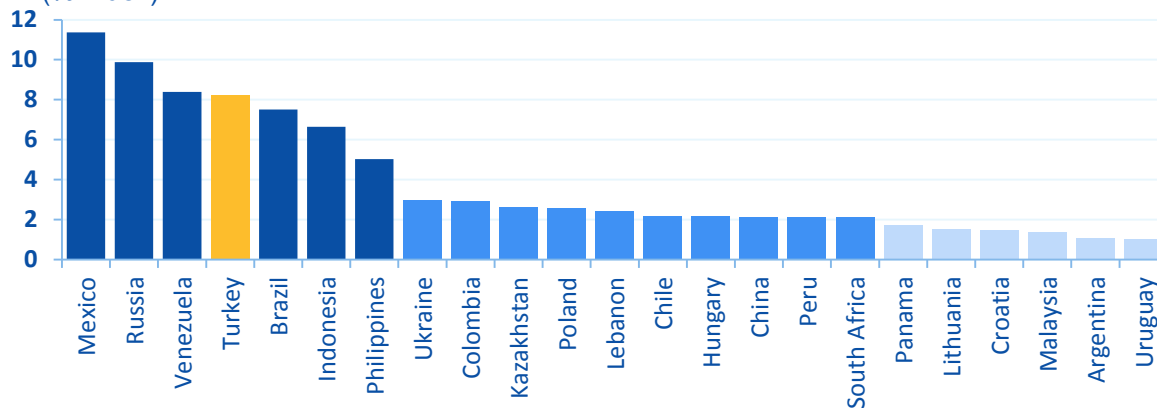
# Global Risk Aversion can increase through “margin calls” as Russia is a systemic EM country...

**Emerging Market Bonds (EMBI Global)**  
(% index)

**65%**

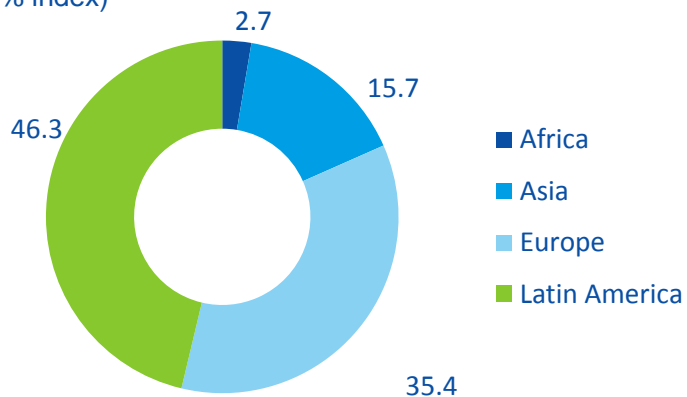


**Emerging Market Bonds (EMBI Global)**  
(% index)

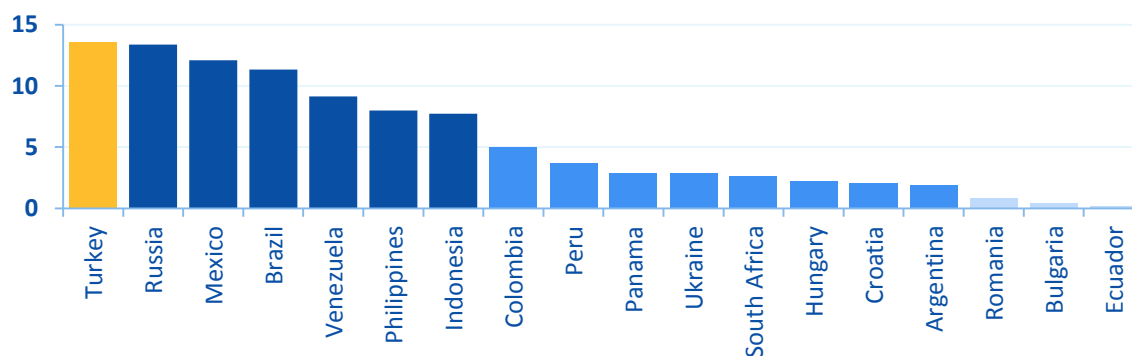


**Emerging Market Bonds (EMBI+)**  
(% index)

**35%**



**Emerging Market Bonds (EMBI+)**  
(% index)

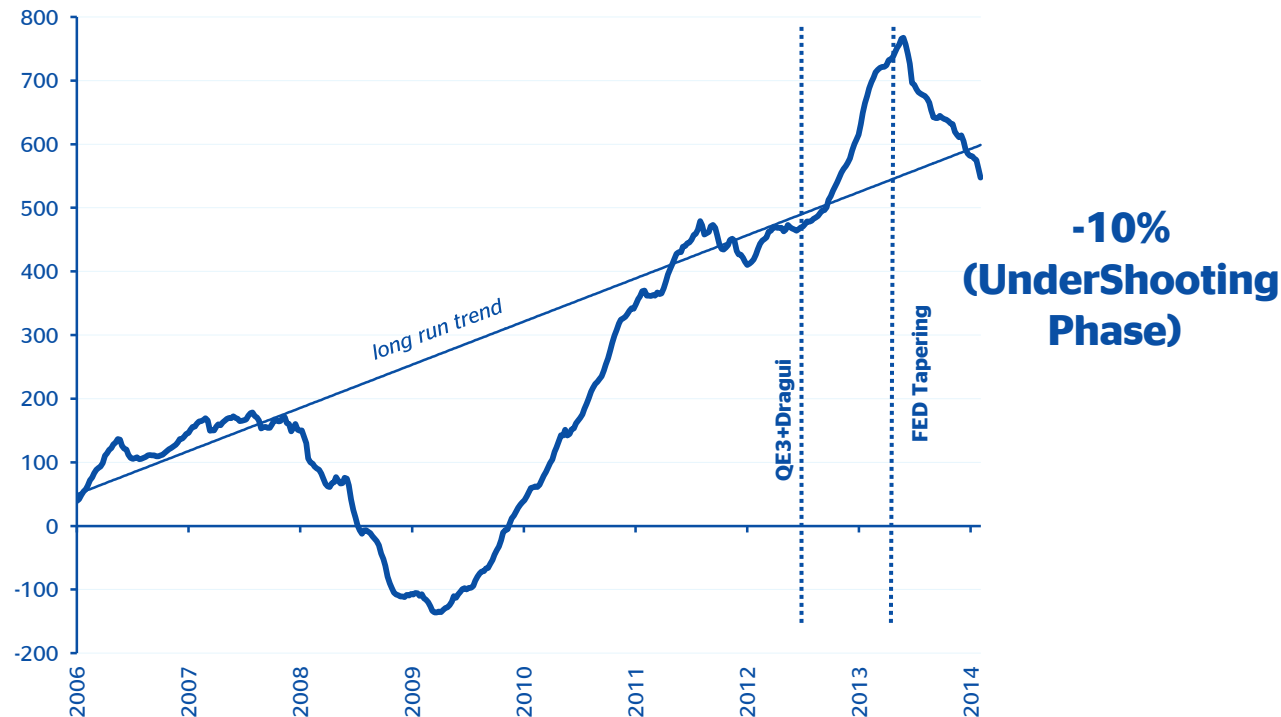


EM flows have entered in the “Undershooting” phase ... (so less margin to fall) ...but unevenly across countries

### Emerging Markets: Cumulative Net Capital Flows

(Cumulative since 2005, US\$ bn)

Source: BBVA Research, IMF and EPFR

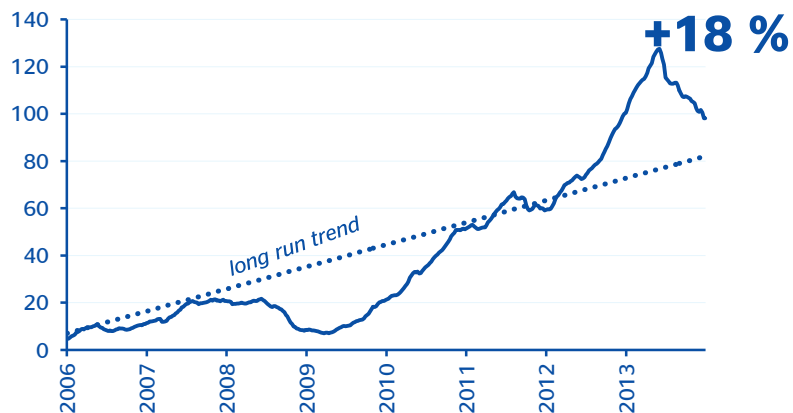


# EM flows have entered in the “Undershooting” phase but unevenly across countries

## México: Cumulative Net Capital Flows

(Cumulative since 2005, US\$ bn)

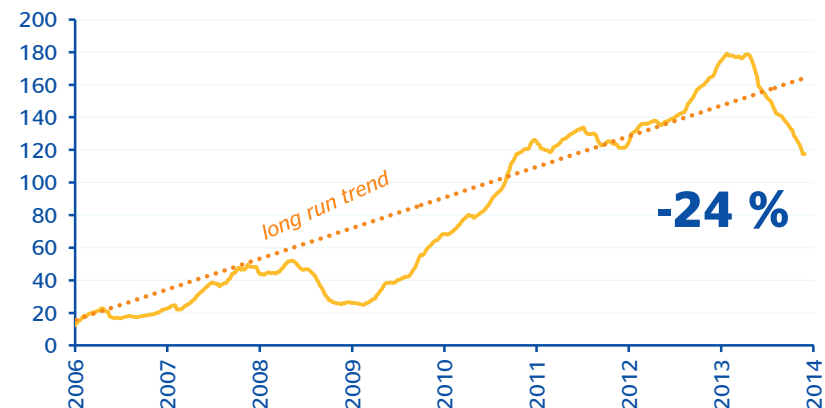
Source: BBVA Research, IMF and EPFR



## Brazil: Cumulative Net Capital Flows

(Cumulative since 2005, US\$ bn)

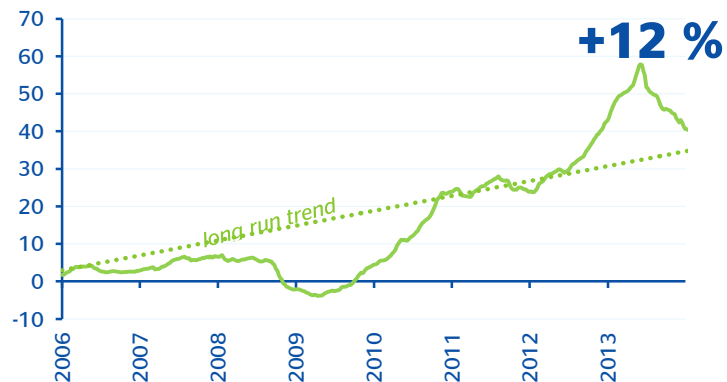
Source: BBVA Research, IMF and EPFR



## Turkey: Cumulative Net Capital Flows

(Cumulative since 2005, US\$ bn)

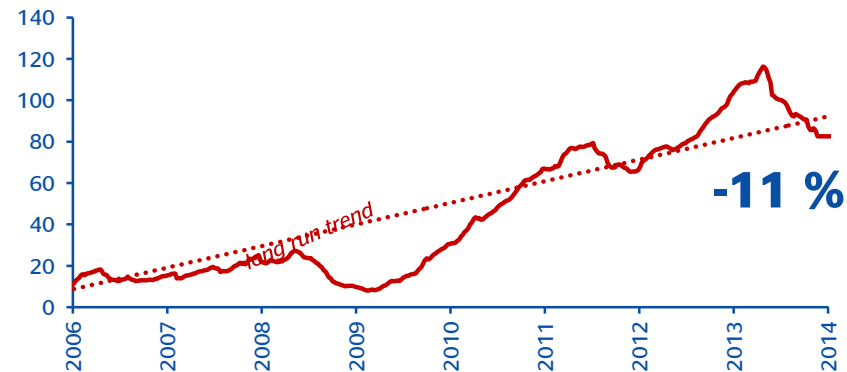
Source: BBVA Research, IMF and EPFR



## Russia: Cumulative Net Capital Flows

(Cumulative since 2005, US\$ bn)

Source: BBVA Research, IMF and EPFR



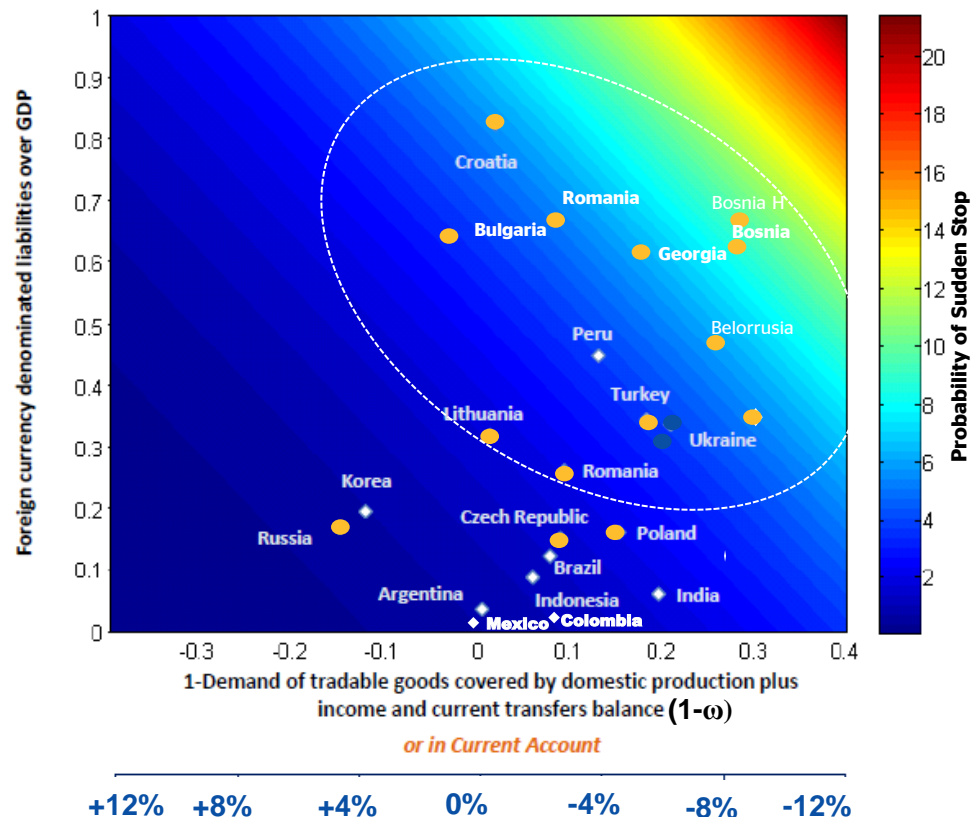


# The probability of Capital Flows “Sudden Stops” is biased to Emerging Europe given the currency mismatch problem

## BBVA Research Systemic Sudden Stop\* Pressure Map

(based on CAC Deficit and Domestic Liability Dollarization)

Source: Calvo, Izquierdo y Mejia (2008) and BBVA Research



## Key Ingredients to Sudden Stop Probability

	(1-ω) or CAC Balance	Domestic Liability Dollarization	Portfolio Integration (EMBI)	FX Regime
<b>Ukraine</b>	Red	Orange	Orange	Orange
<b>Croatia</b>	Green	Red	Orange	Orange
<b>Poland</b>	Orange	Orange	Red	Green
<b>Russia</b>	Green	Green	Red	Orange
<b>Turkey</b>	Red	Orange	Red	Green
<b>Mexico</b>	Green	Green	Red	Green
<b>Brazil</b>	Orange	Green	Red	Green
<b>Chile</b>	Orange	Green	Orange	Green
<b>Peru</b>	Red	Red	Orange	Green
<b>Colombia</b>	Orange	Green	Orange	Green
<b>China</b>	Green	Green	Orange	Orange
<b>India</b>	Red	Green	Green	Green
<b>Korea</b>	Green	Orange	Green	Green
<b>Thailand</b>	Green	Green	Red	Green
<b>Indonesia</b>	Orange	Green	Red	Green

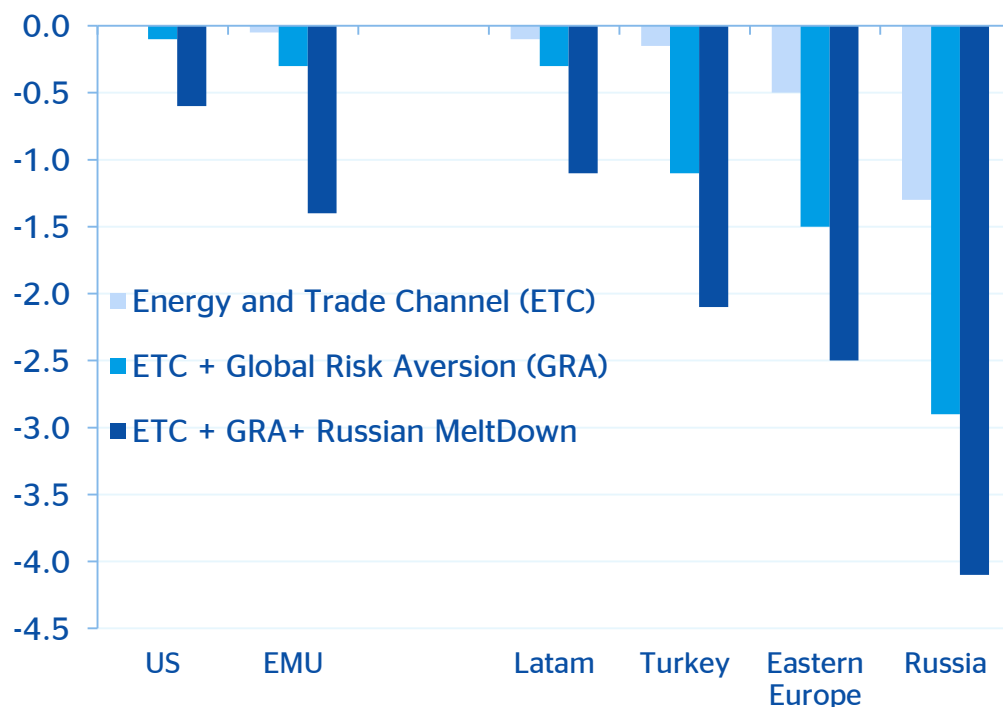
- Systemic Sudden Stop that take place in conjunction with a sharp rise in aggregate interest rate spreads. See Calvo, Izquierdo and Mejia (2008)

Energy & Trade shocks will not have significant effects. We would need “severe market distress for risky results. Russia is the Big Loser of the game (constraint)

### GDP Effects of Ukranian-Russian Crisis Scenarios\*

(% from base scenario cumulative 2014-15)

Source BBVA Research



Scenario 1: Energy and Trade Shock (short-lived)

Scenario 2: scenario 1+ Global Risk Aversión

Scenario 3: scenario 2 + Meltdown in Russia

### GDP Effects of Ukranian-Russian Crisis Scenarios (OEF)

(% difference in Level GDP versus baseline 2015)

Source OEF



Source : Oxford Economics

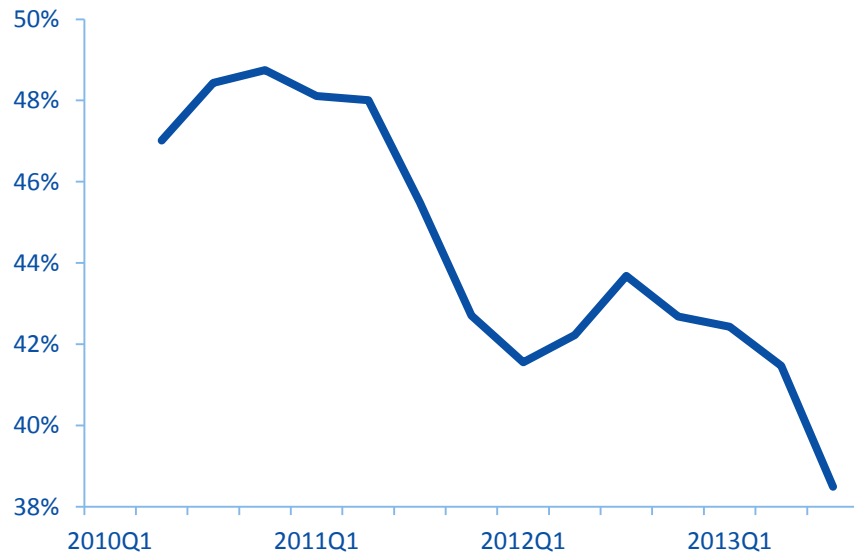
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Ukraine will need immediate assistance but institutional problems could limit the effects of the Bail Out...

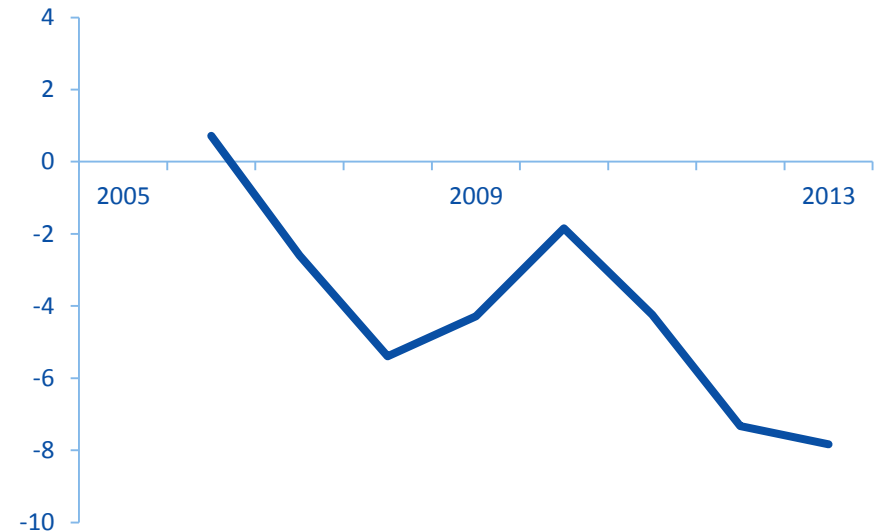
### Ukraine: Cover Ratio (Reserves to Foreign short term liabilities)

Source: BBVA Research



### Ukraine: Current account to GDP

Source: BBVA Research

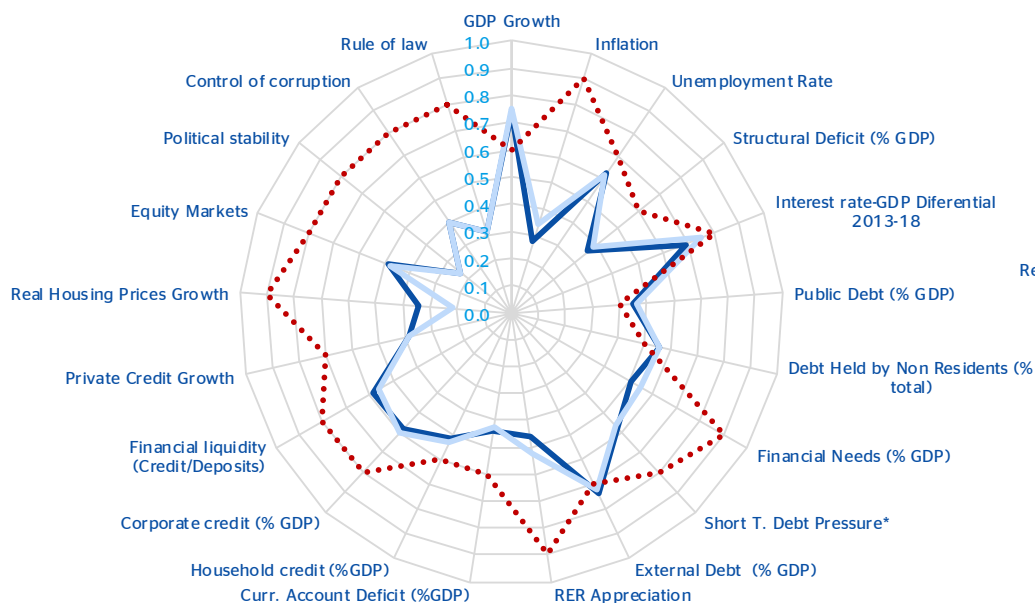


# Emerging Europe is at the top of EM vulnerability...

## Emerging Europe: Vulnerability Radar 2014

(Relative position for the Emerging Market countries. Max Risk=1, Min Risk=0)

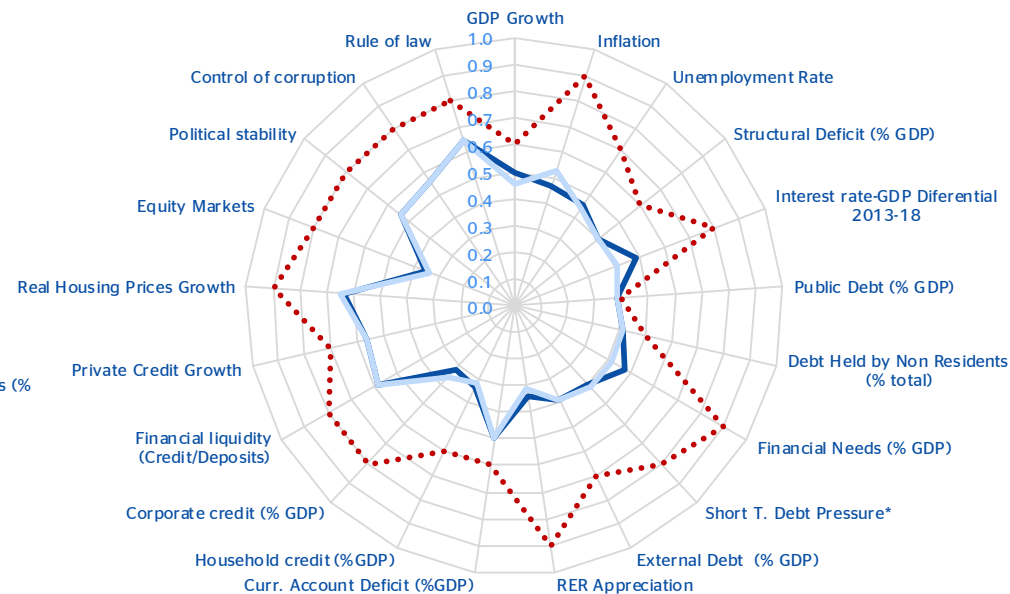
Source: BBVA Research



## Latam: Vulnerability Radar 2014

(Relative position for the Emerging Market countries. Max Risk=1, Min Risk=0)

Source: BBVA Research



Developed: (ST Public Debt/ Total Public Debt)

Emerging : (Reserves to ST External Debt)

1: High vulnerability

0: Low vulnerability

— Emerging Europe 2014

- - - Emerging Europe 2013

..... Risk Thresholds Emerging 2014

— Latam 2014

- - - Latam 2013

..... Risk Thresholds Emerging 2014

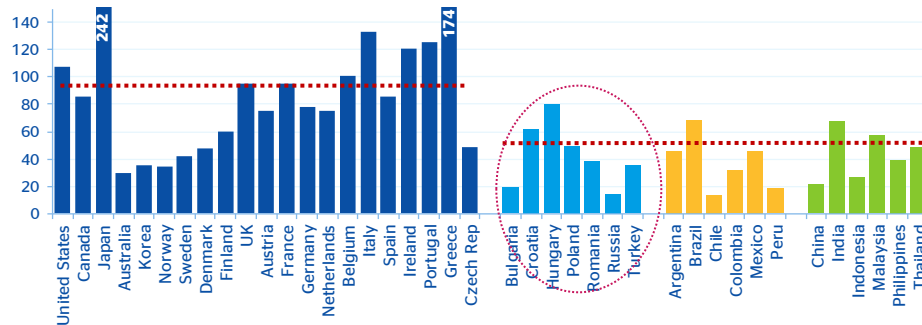
**Vulnerability Radar:** Shows a static and comparative vulnerability for different countries. For this we assigned several solvency, liquidity and macro variables and we reorder in percentiles from 0 (lower ratio among the countries to 1 maximum vulnerabilities.) Furthermore Inner positions in the radar shows lower vulnerability meanwhile outer positions stands for higher vulnerability

# Emerging Europe is at the top of EM vulnerability...

## Gross Public Debt 2014

(% GDP)

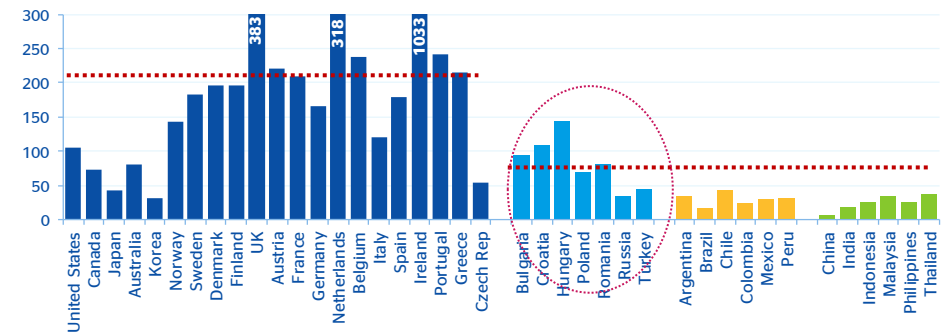
Source: BBVA Research and IMF



## External Debt 2014

(% GDP)

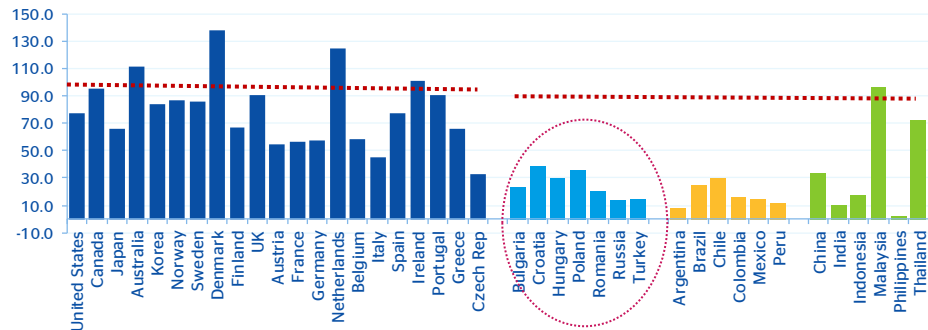
Source: BBVA Research and IMF



## Household Debt 2014

(% GDP)

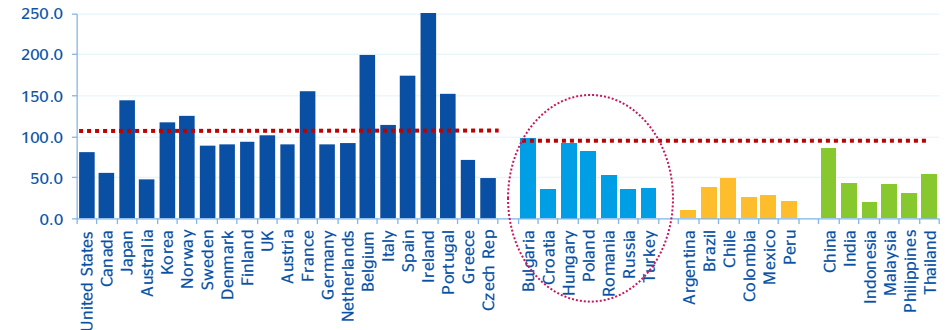
Source: BBVA Research and BIS



## Corporate Sector Debt 2014

(% GDP, excluding bond issuances)

Source: BBVA Research and BIS

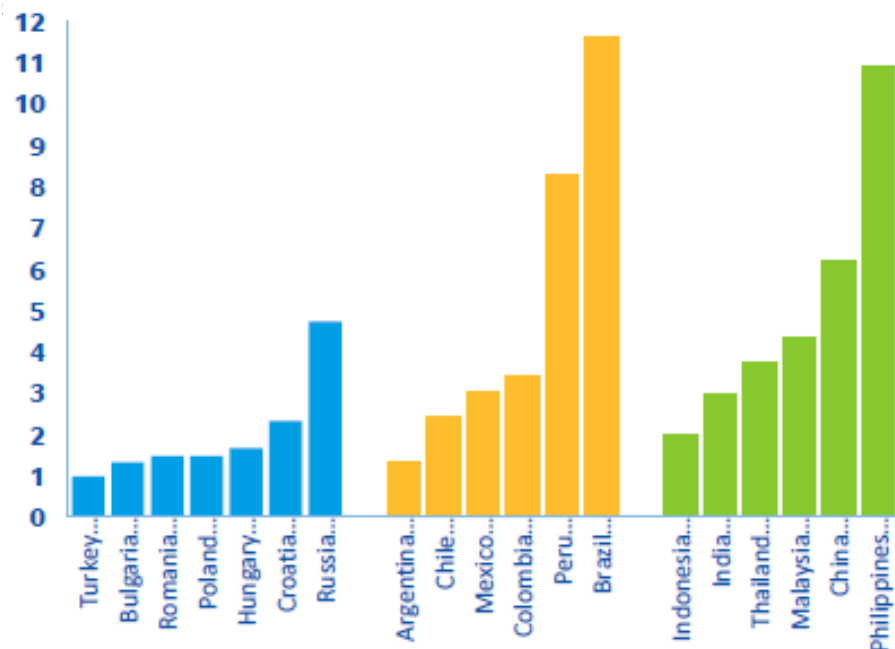


..... Risk Thresholds

# Including Special and Relevant problems...

## Emerging Markets: Current International Reserve Adequacy 2013

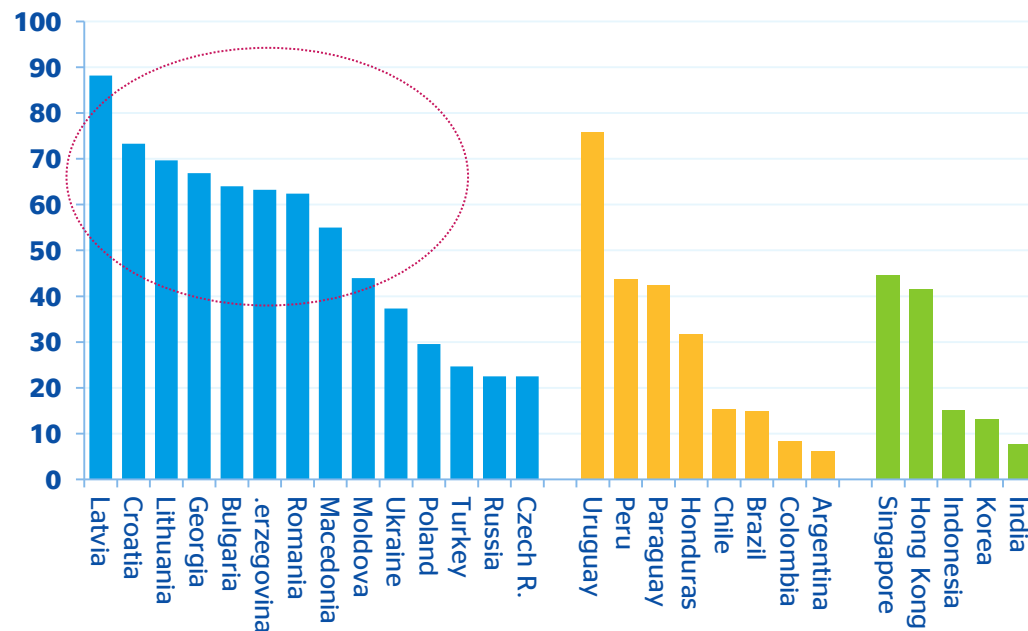
(%GDP)



## Emerging Markets: FX Loans 2012

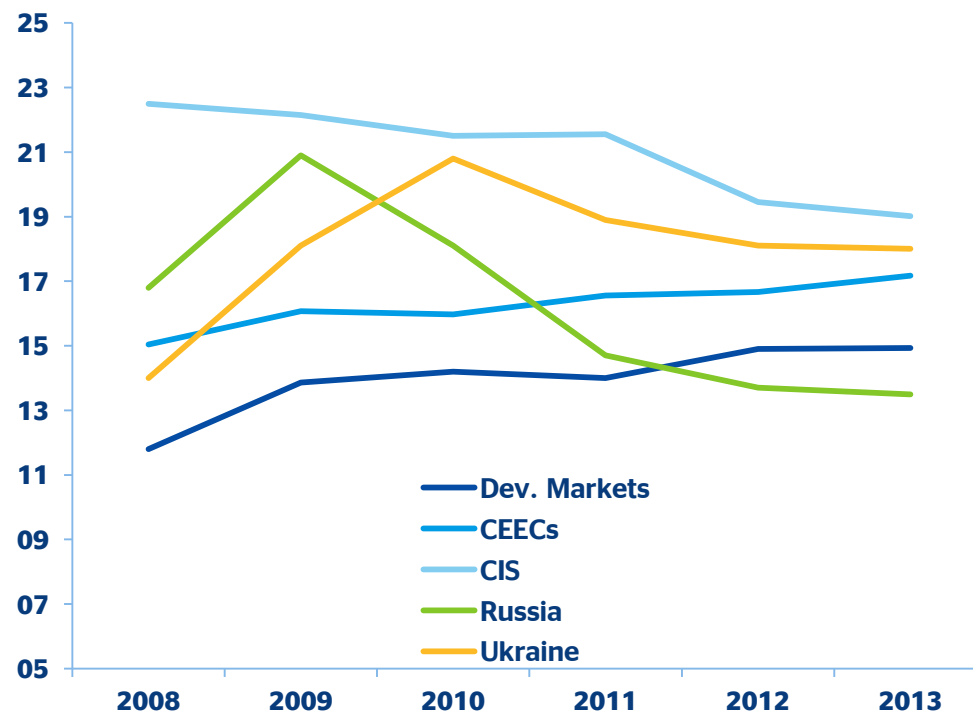
(% Total Loans, 2012 or latest available data)

Source: IMF



# Although Banking Systems are well capitalized...

**Capital Adequacy of the banking system**  
(regulatory capital ratios)



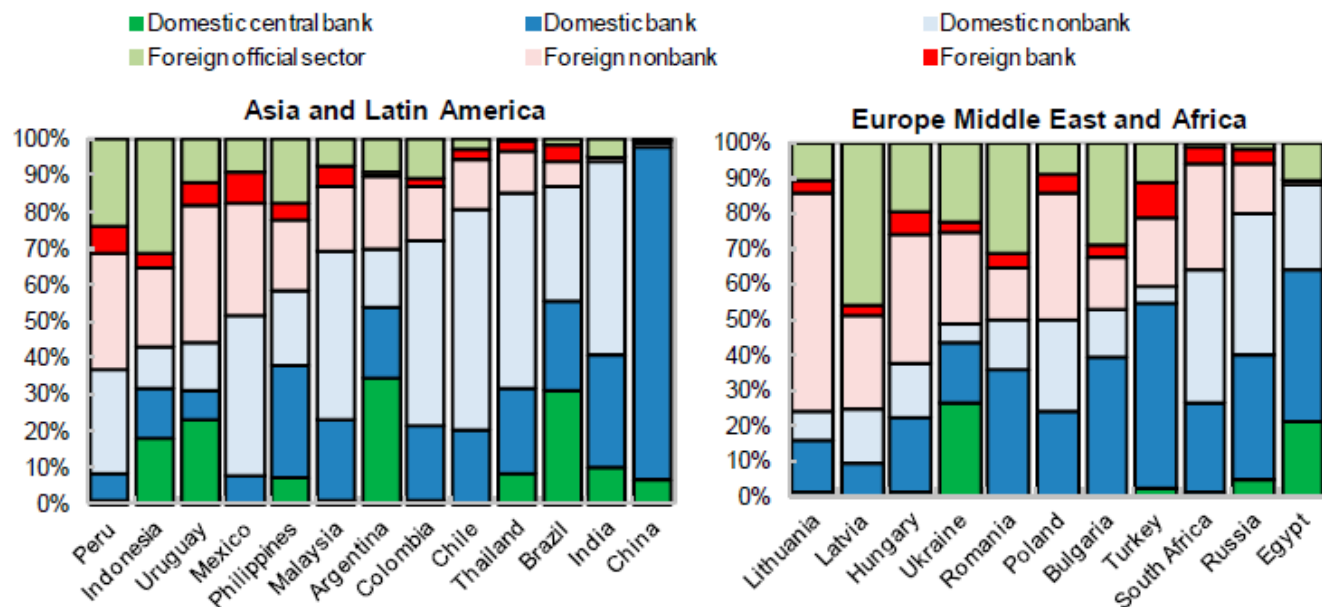


# Corporate exposure to sovereign defaults is also relevant

## Emerging Market Holders of Government Debt

(% of total)

Source: IMF



Source: Authors' calculations.

Note: Government debt indicates general government gross debt. Domestic banks are depository corporations residing in the country (IFS definition). Foreign banks are BIS reporting banks and bank branches residing outside the country. Foreign official sector includes foreign official loans and foreign central bank holdings as reserve assets. Foreign nonbanks and domestic nonbanks are imputed from external and total debt.