

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

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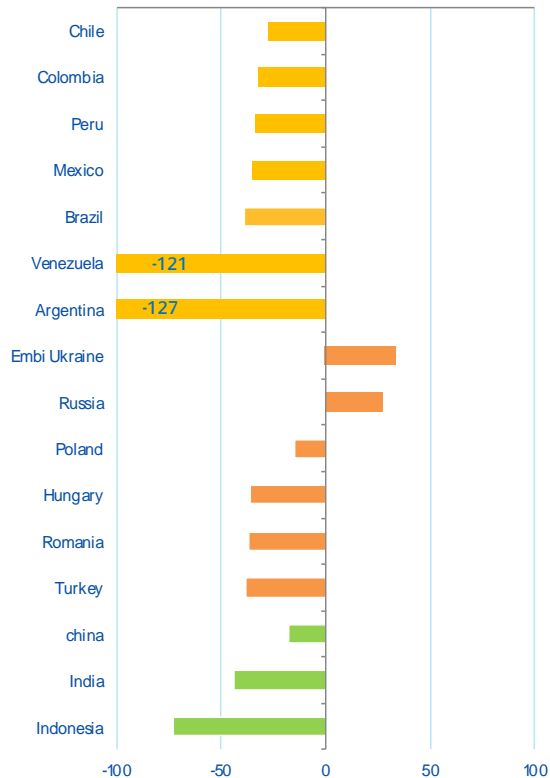
- 1. The Market Reaction to the crisis**
2. The Energy Dependence Issue
3. The Bank Interconecction
4. Transmission Channels and Potential Impact
5. Vulnerabilities in EM and Eastern Europe

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)

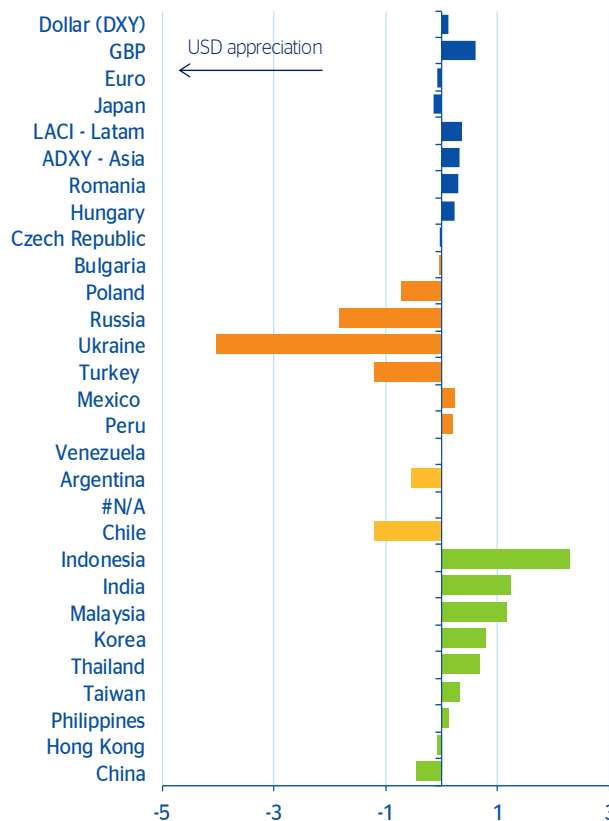
Source: Haver and BBVA Research



FX vs. USD

Porcentual change since Feb 21)

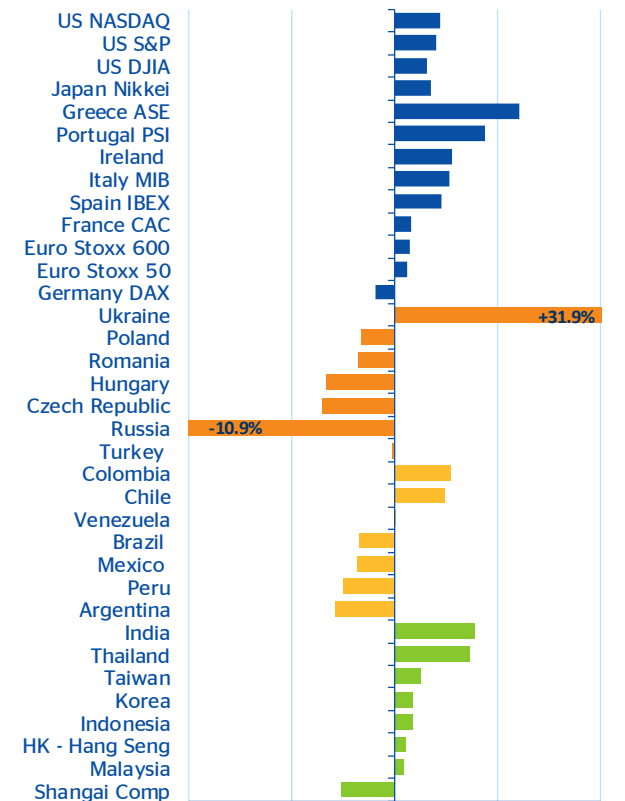
Source: BBVA Research and Bloomberg



Equity markets

(change since Feb 21, bps)

Source: Bloomberg and BBVA Research

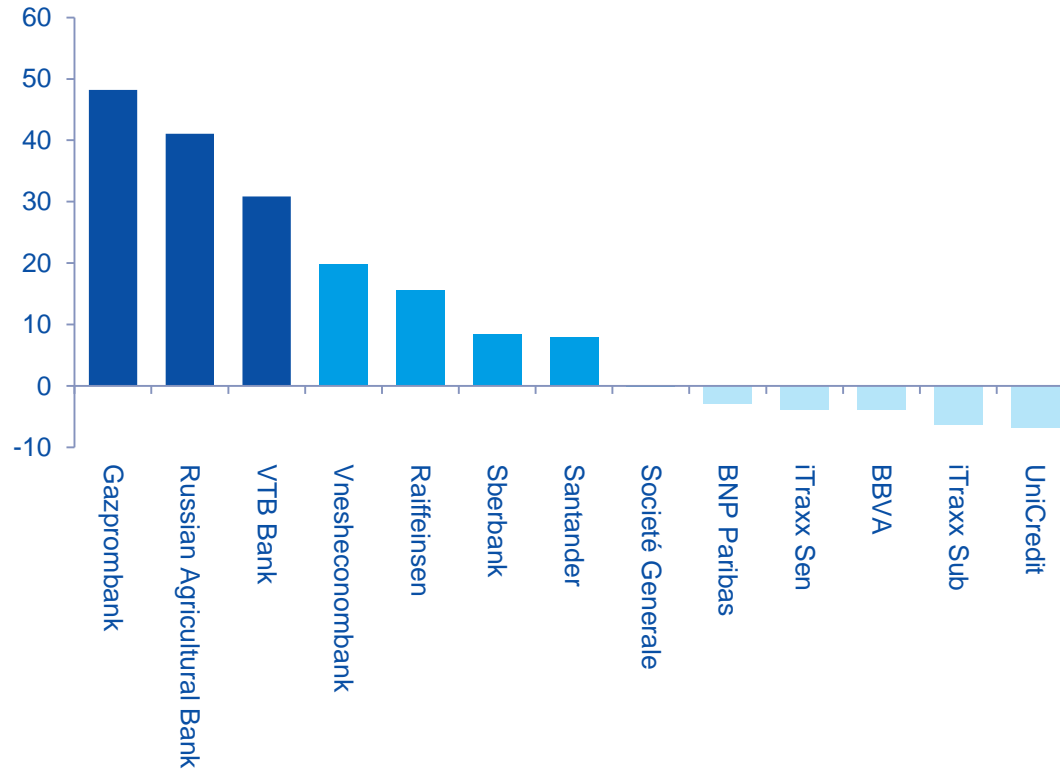


Some Russian and Western European Banks already affected but mildly..

Banks CDSs

(change since 23 Feb)

Source: Bloomberg, DataStream & BBVA

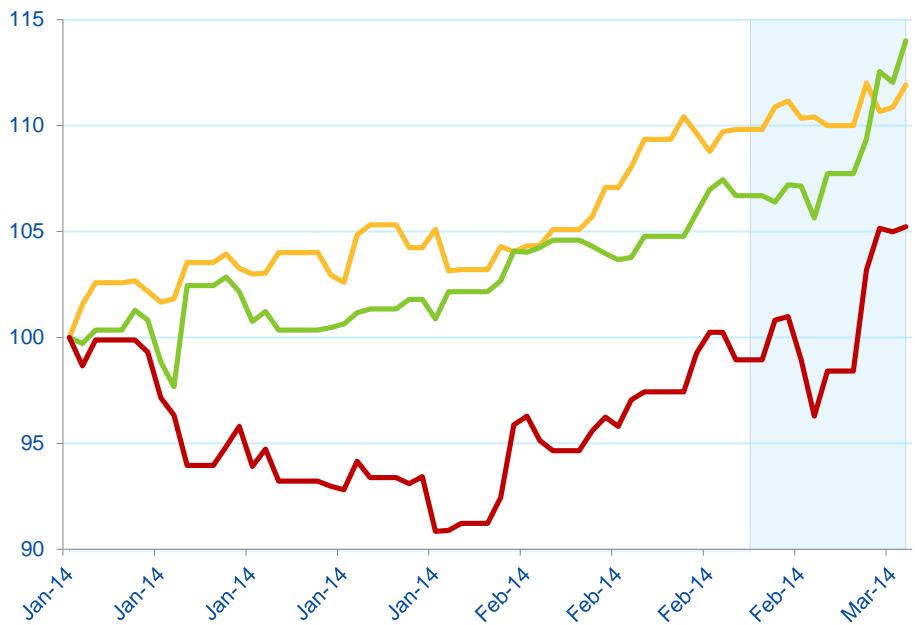


So far, food and gold prices increases higher than energy...

Commodities : Food Prices

(normalized as Jan2014=100)

Source Bloomberg and BBVA Research

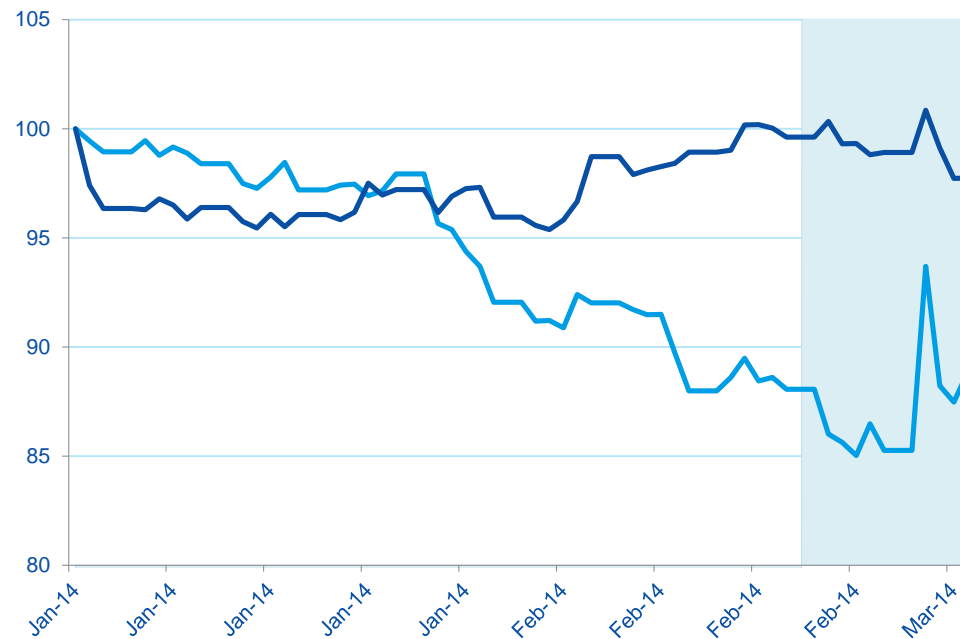


Yanukovich ousted Gold Corn Wheat

Commodities : Energy Prices

(normalized as Jan2014=100)

Source Bloomberg and BBVA Research

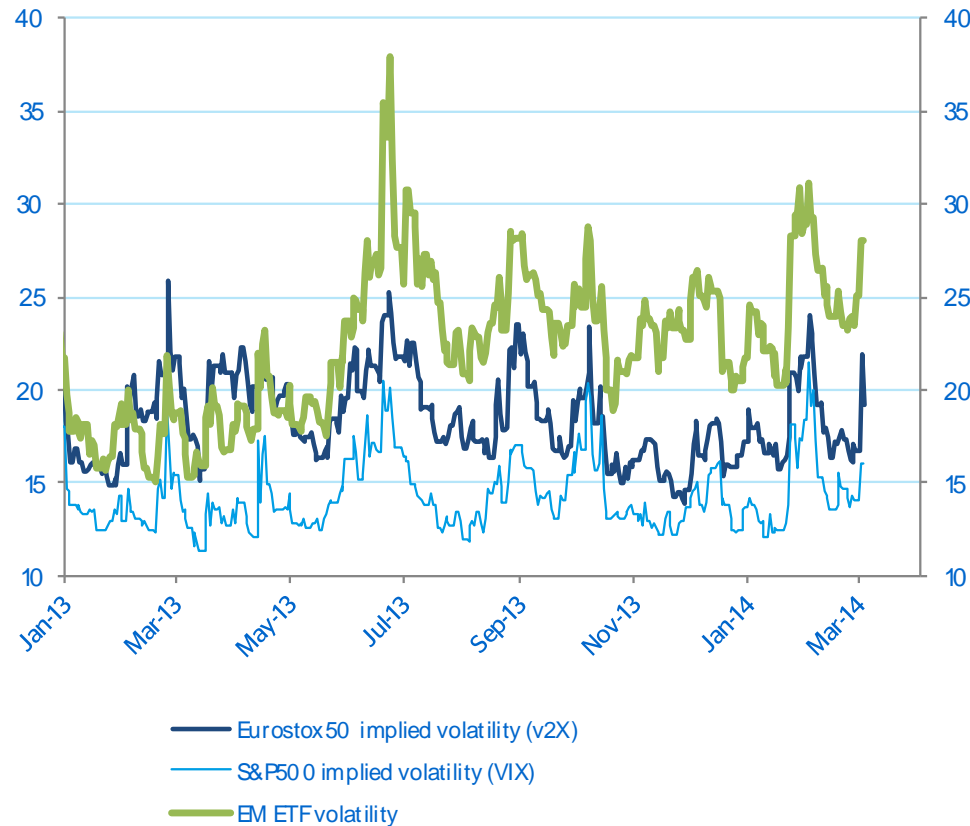


Yanukovich ousted Natural Gas Brent

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

Equity implied volatility

Source: Bloomberg & BBVA Research through EPFR data

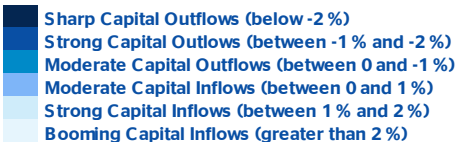
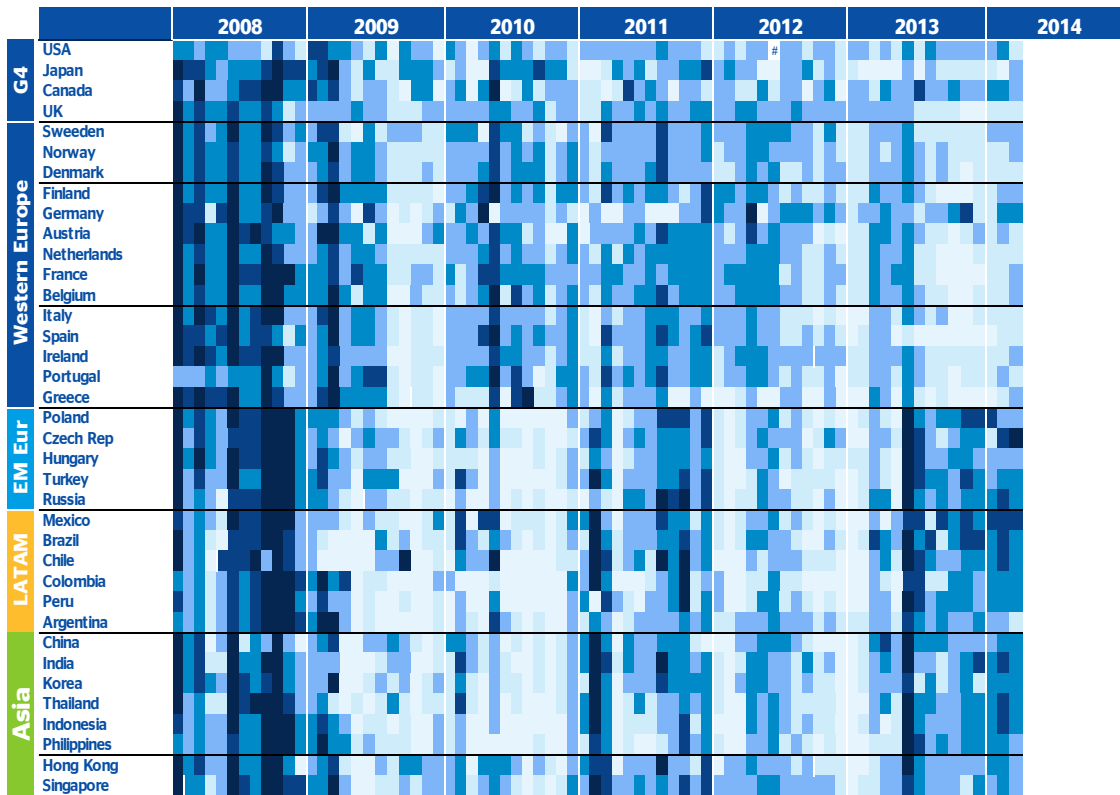


No serious regional capital flows reversals... Idiosyncratic Factors playing a higher role now than before...

BBVA Country Portfolio Flows Map

(Country Flows over total Assets)

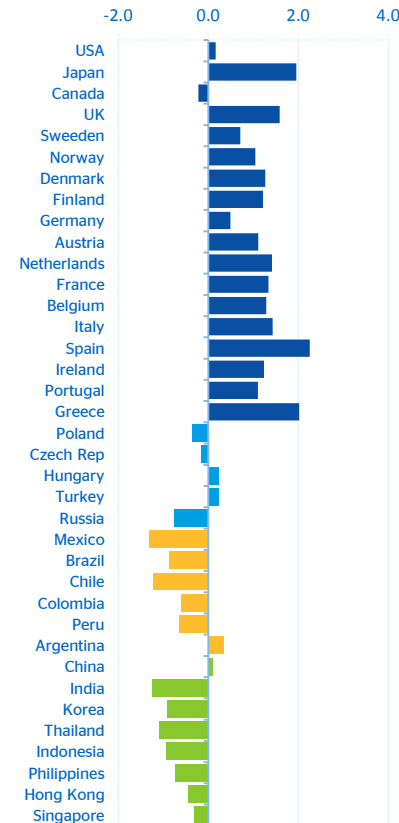
Source: BBVA Research through EPFR data



Portfolio Flows Jan-Feb 14

(country Flows over Total Assets, average)

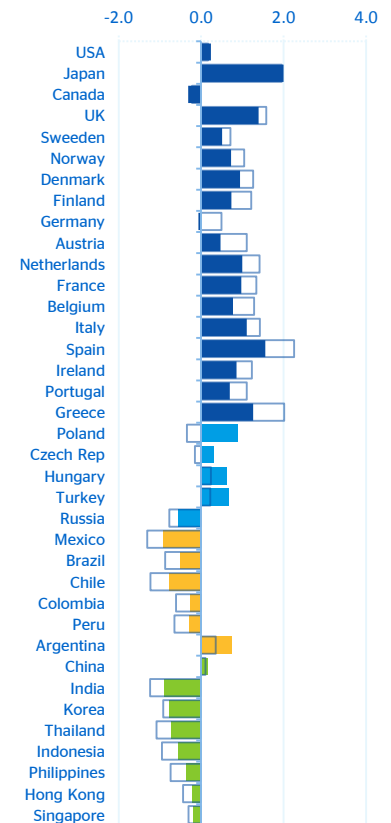
Source: BBVA Research through EPFR



Idio. Factors behind Jan-Feb 14

(country Flows over Total Assets, average)

Source: BBVA Research through EPFR



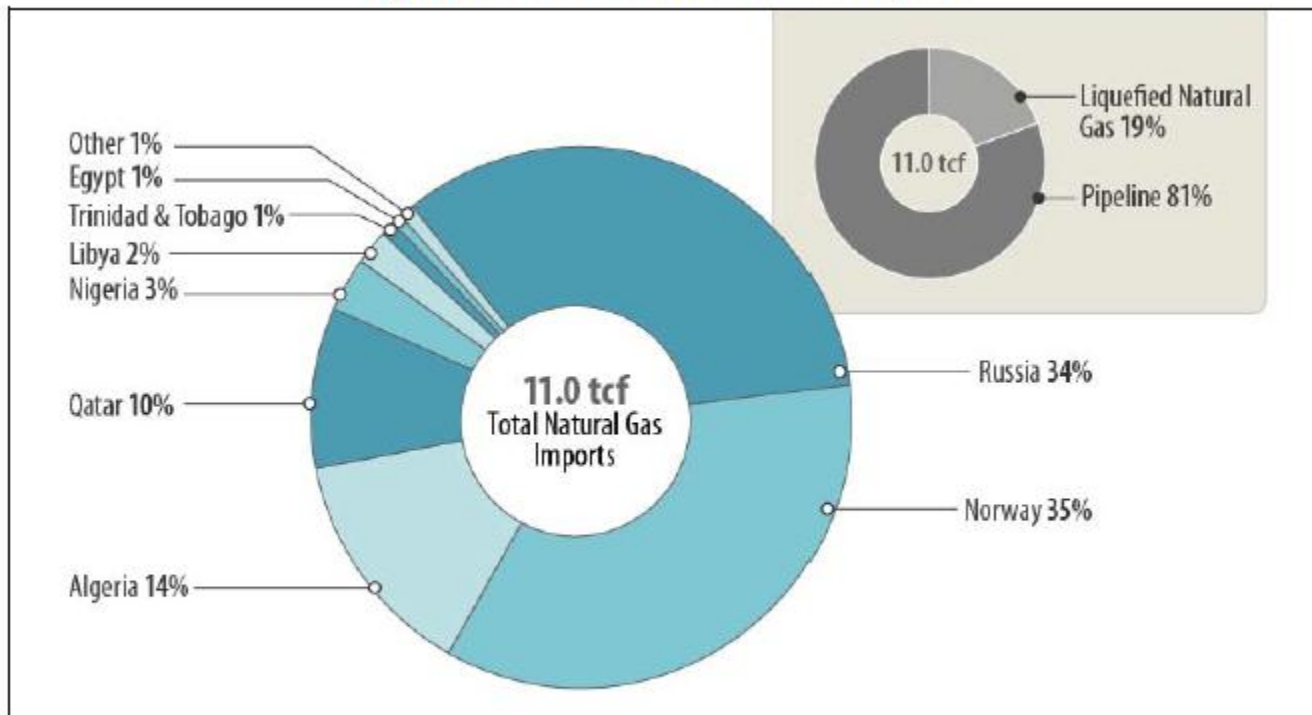
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Europe depends on Russian Gas...but Russia has something to loose in the crisis...

EU Natural Gas Imports

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



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%)

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).

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

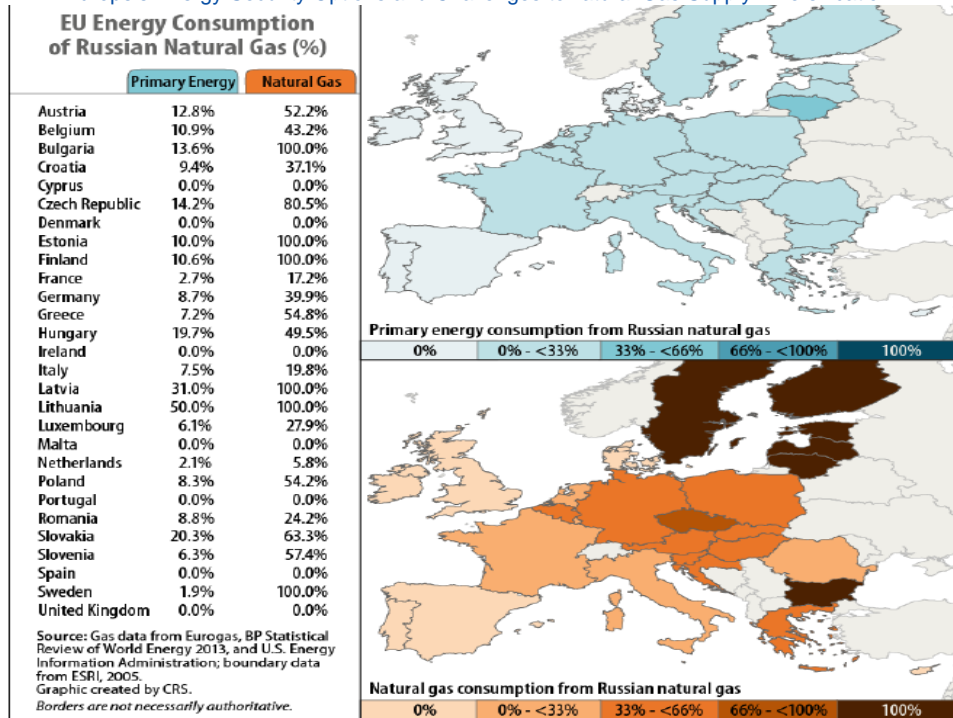
Nord Stream pipeline: Map



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



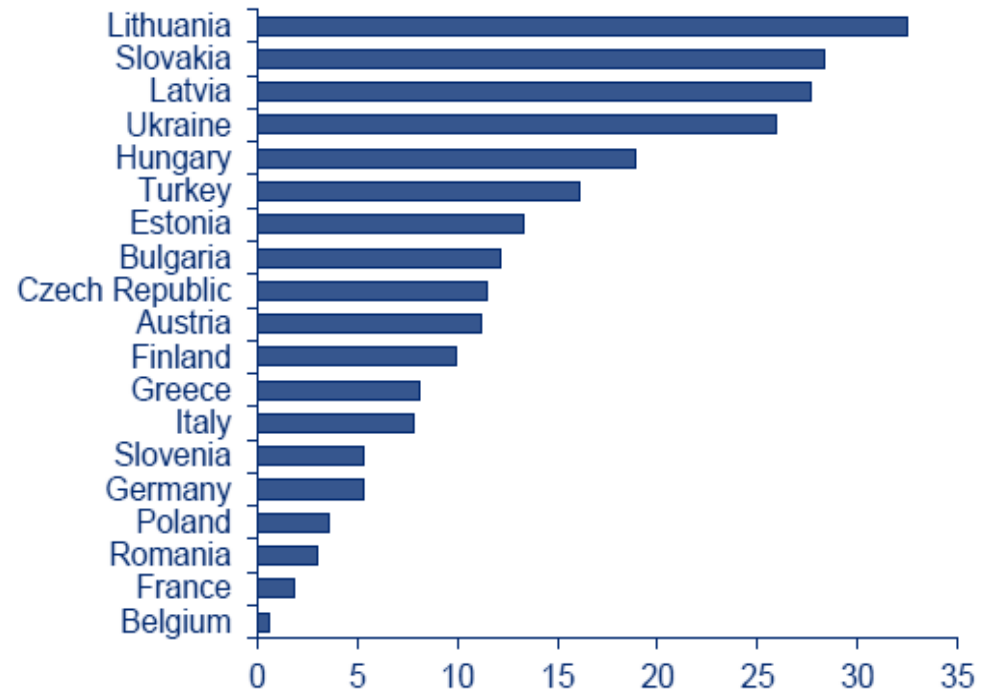
Source: CRS Graphics compiled this graphic.

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

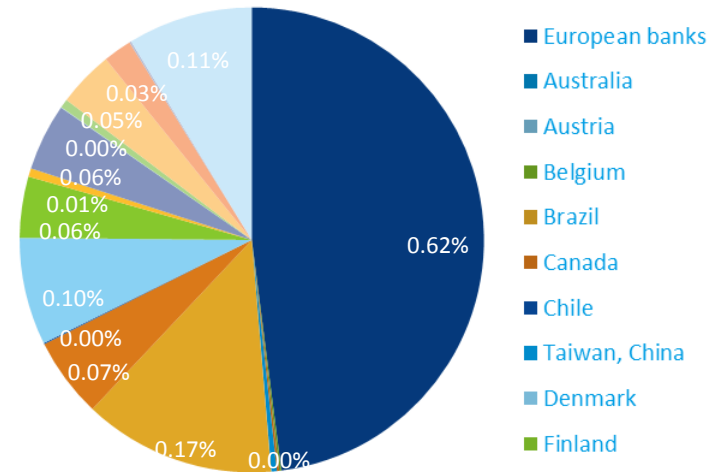
-% of the liabilities issued Source: BIS Table 9B: Consolidated foreign claims of reporting banks - immediate borrower basis

| 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

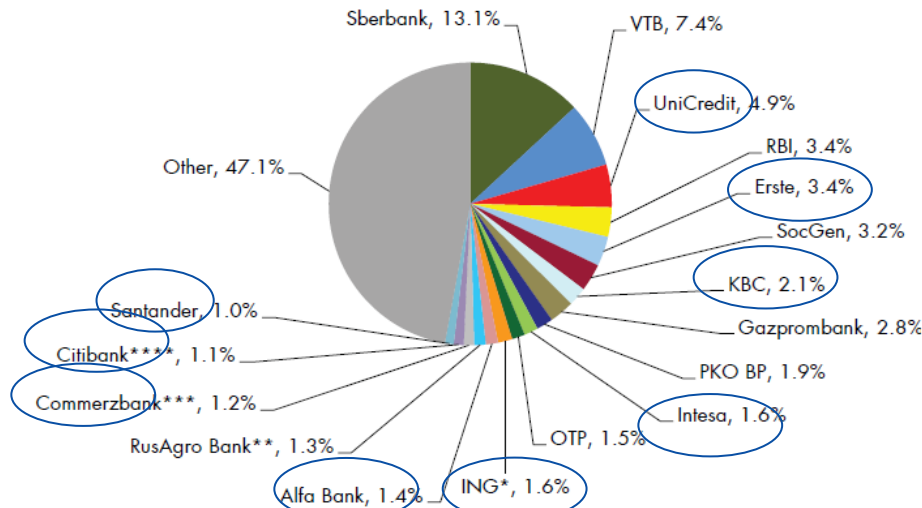


The crisis can shift the focus to West Europe Banks links with the region and their particular “banking” model

Market Share of Foreign Banks in Central Eastern Europe

(% total assets)

Source:Raiffeisen



CEE: PL, CZ, SK, HU, SI, LT, 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

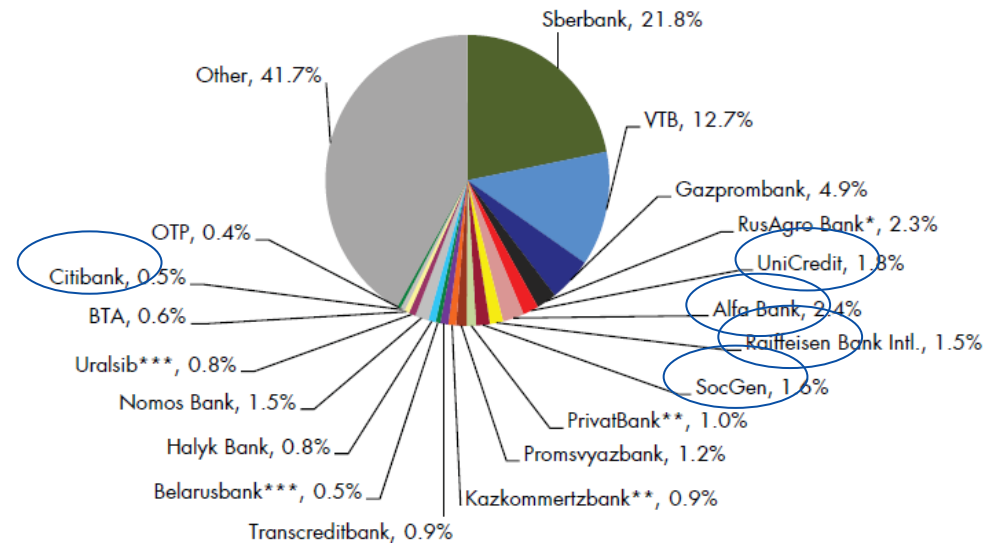
 US and West European Banks

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

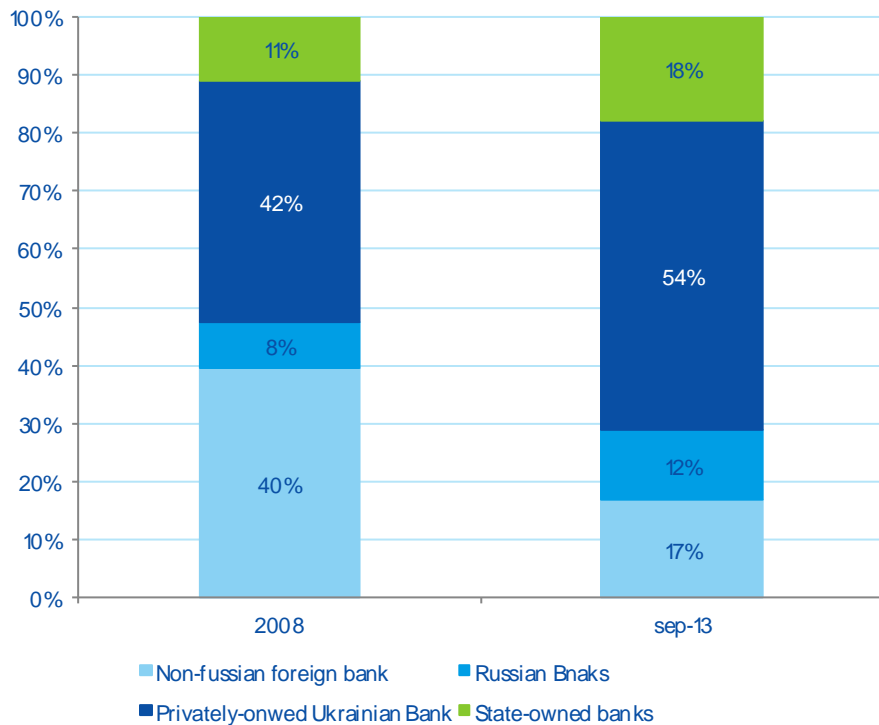
*** as of 31 December 2012

Source: Company data, national central banks

But Russian Banks will be affected too...

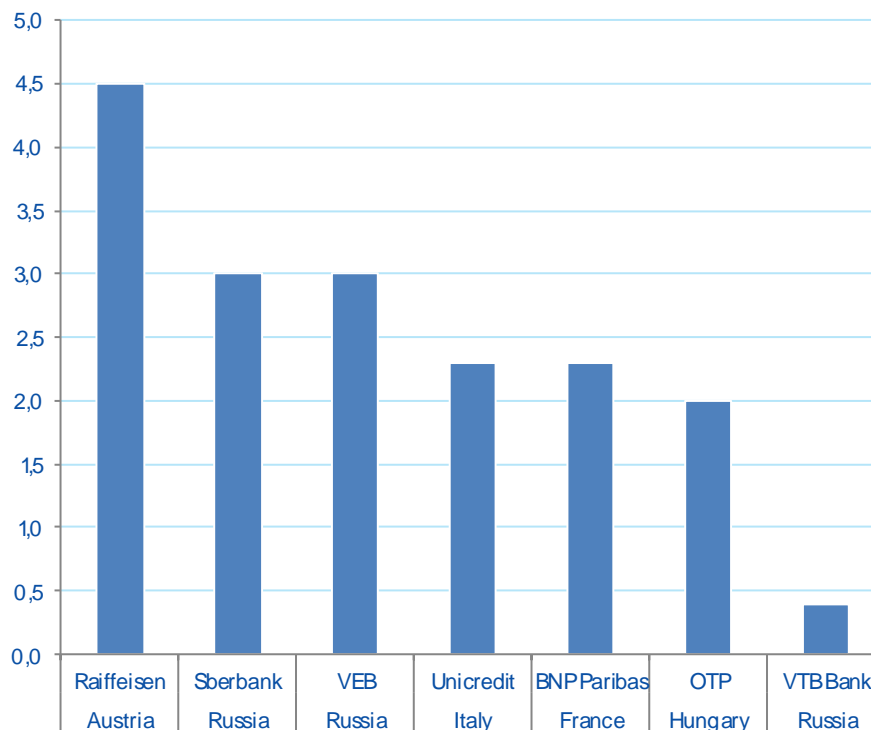
Market structure of Ukraine's banking sector

Source: Raiffeissen, SNL and each bank



Direct exposure of foreign banks to Ukraine (€bn)

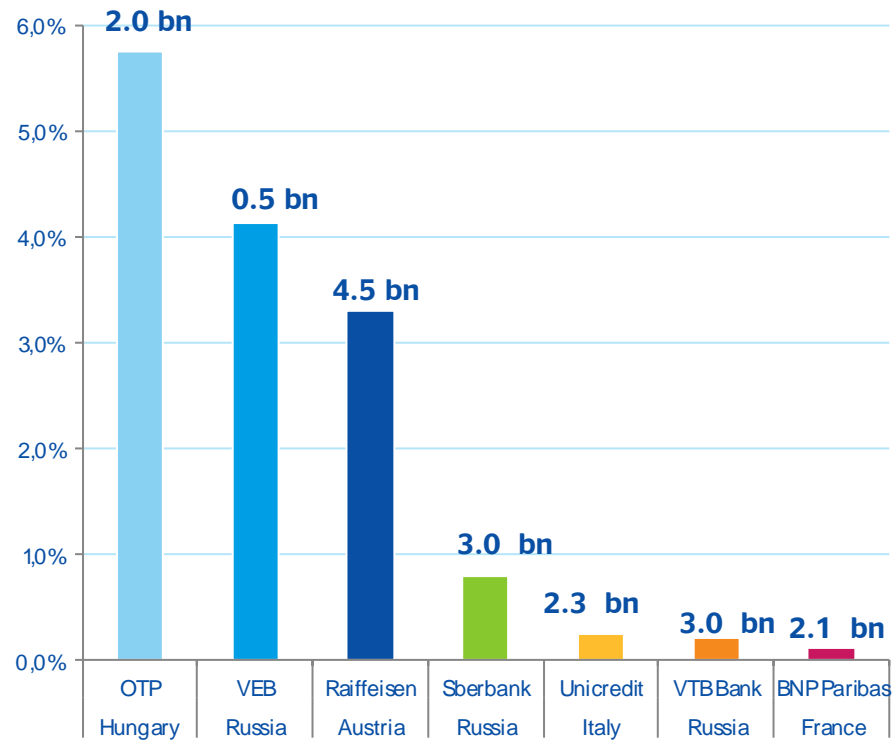
Source: Raiffeissen, SNL and each bank



But Russian Banks will be affected too...

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

Source: Raiffeisen, SNL and each bank



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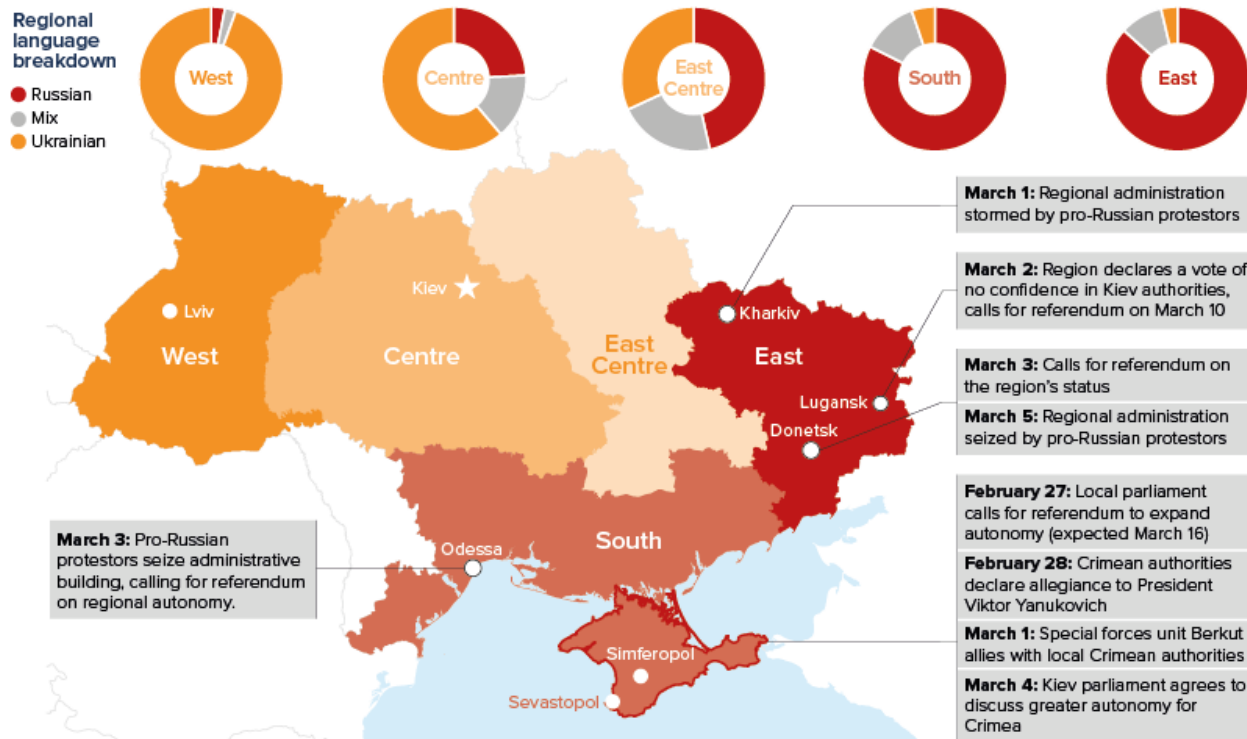
Inside the uncertainty: Some alternative scenarios

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

Inside the uncertainty: Some alternative scenarios

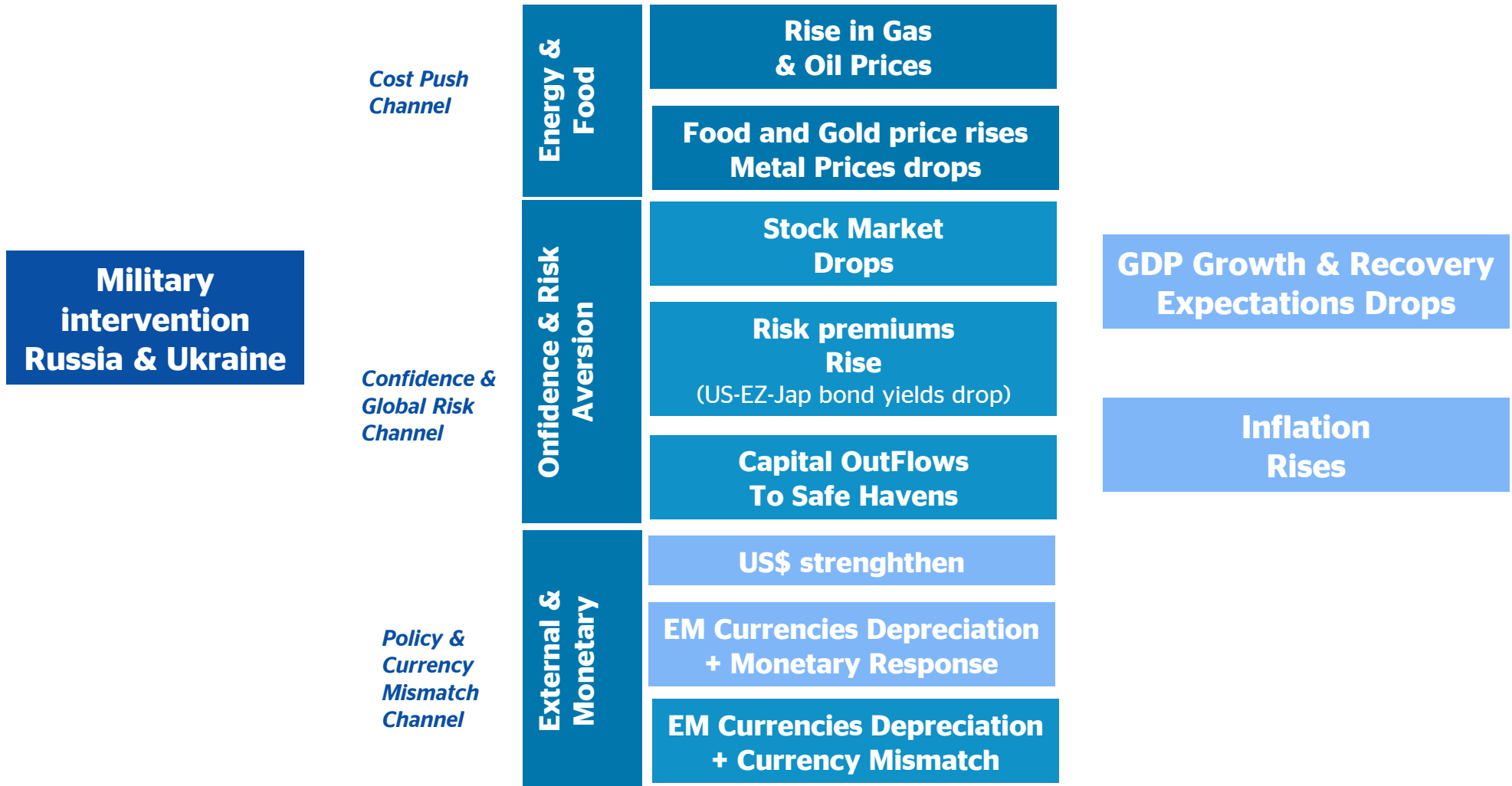
Ukraine-Russia Affairs

Source: Oxford Analytica



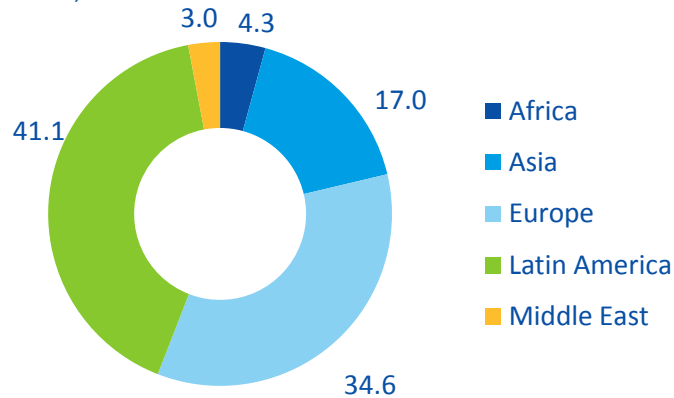
- Ukraine is unlikely to split; a loose federation arrangement is more likely.
- Crimean referendum on autonomy might encourage other south-eastern regions to re-assess their status within Ukraine.
- Moscow might intervene should south-eastern protests escalate and result in significant casualties.

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

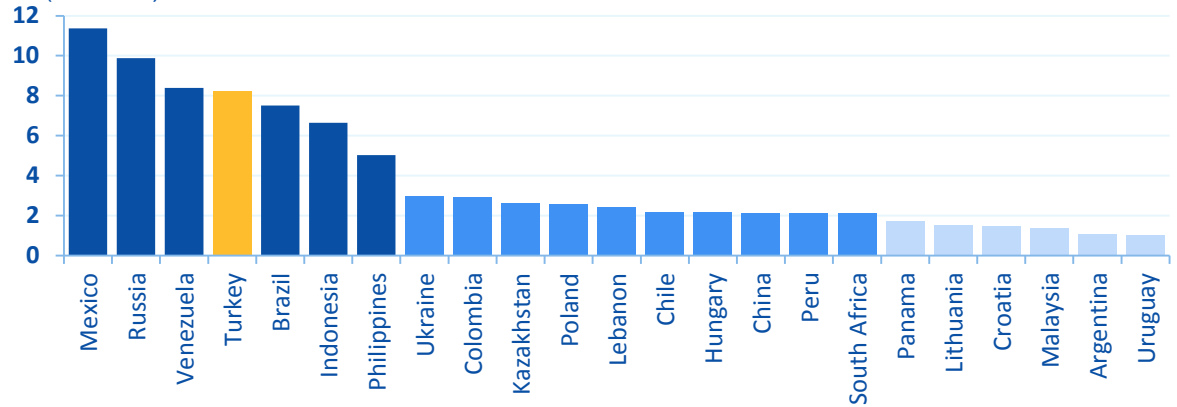


Global Risk Aversion can increase through “margin calls” as Russia is a systemic EM country...

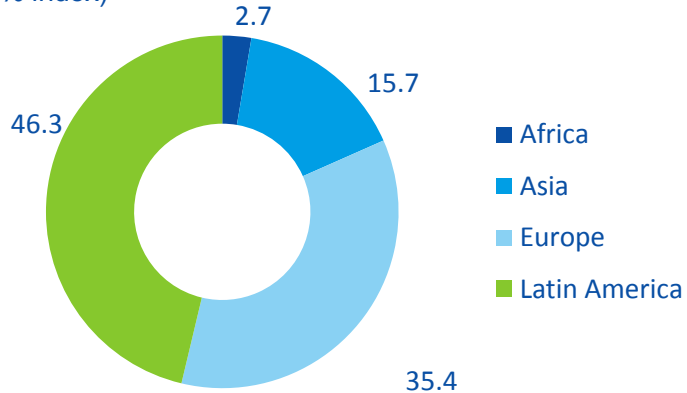
Emerging Market Bonds (EMBI Global)
(% index) **65%**



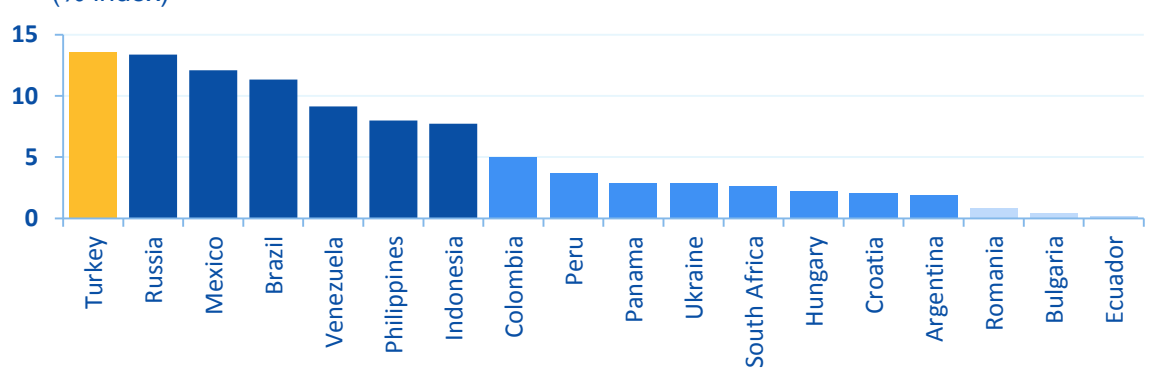
Emerging Market Bonds (EMBI Global)
(% index)



Emerging Market Bonds (EMBI+)
(% index) **35%**



Emerging Market Bonds (EMBI+)
(% index)

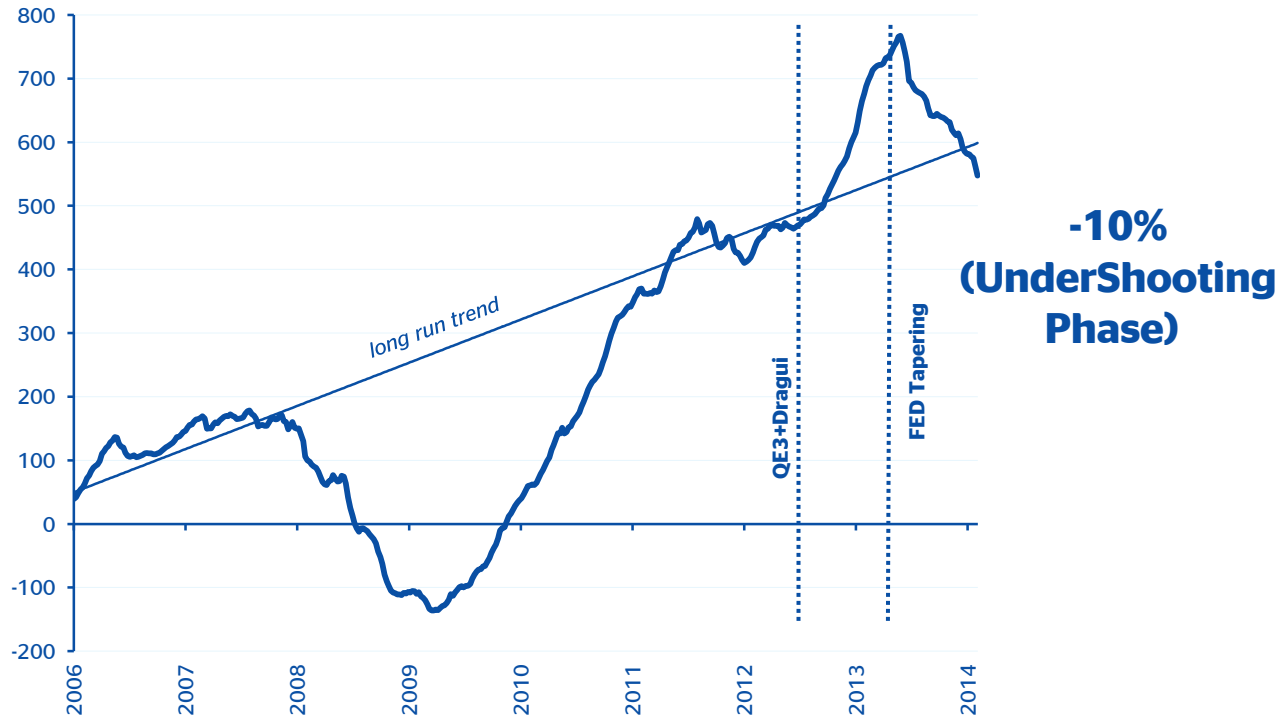


EM flows have entered in the “Undershooting” phase ... (so less margin to fall) ...but unevenly across countries

Emerging Markets: Cumulative Net Capital Flows

(Cumulative since 2005, US\$ bn)

Source: BBVA Research, IMF and EPFR

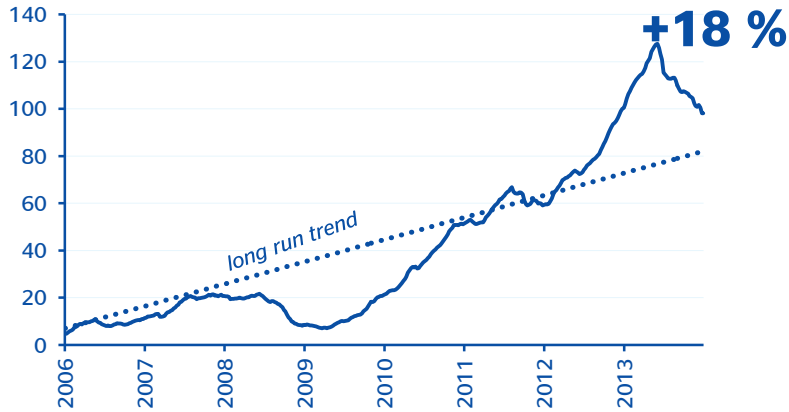


EM flows have entered in the “Undershooting” phase but unevenly across countries

México: Cumulative Net Capital Flows

(Cumulative since 2005, US\$ bn)

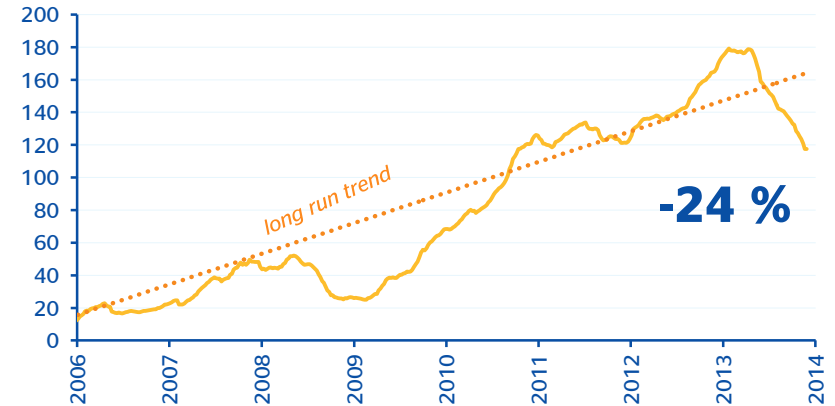
Source: BBVA Research, IMF and EPFR



Brazil: Cumulative Net Capital Flows

(Cumulative since 2005, US\$ bn)

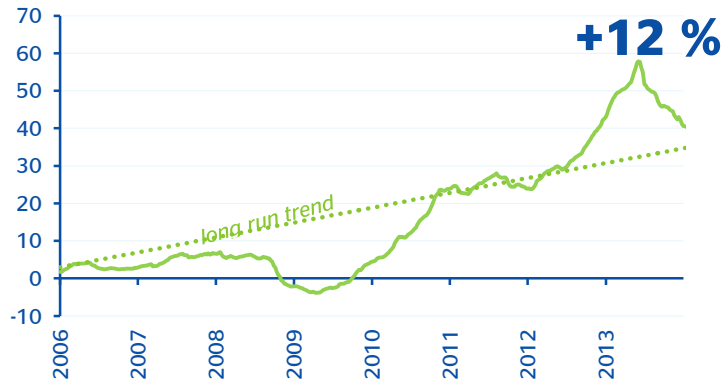
Source: BBVA Research, IMF and EPFR



Turkey: Cumulative Net Capital Flows

(Cumulative since 2005, US\$ bn)

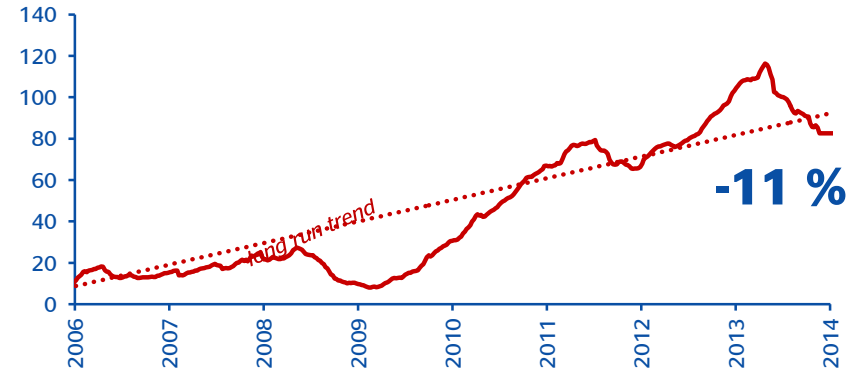
Source: BBVA Research, IMF and EPFR



Russia: Cumulative Net Capital Flows

(Cumulative since 2005, US\$ bn)

Source: BBVA Research, IMF and EPFR

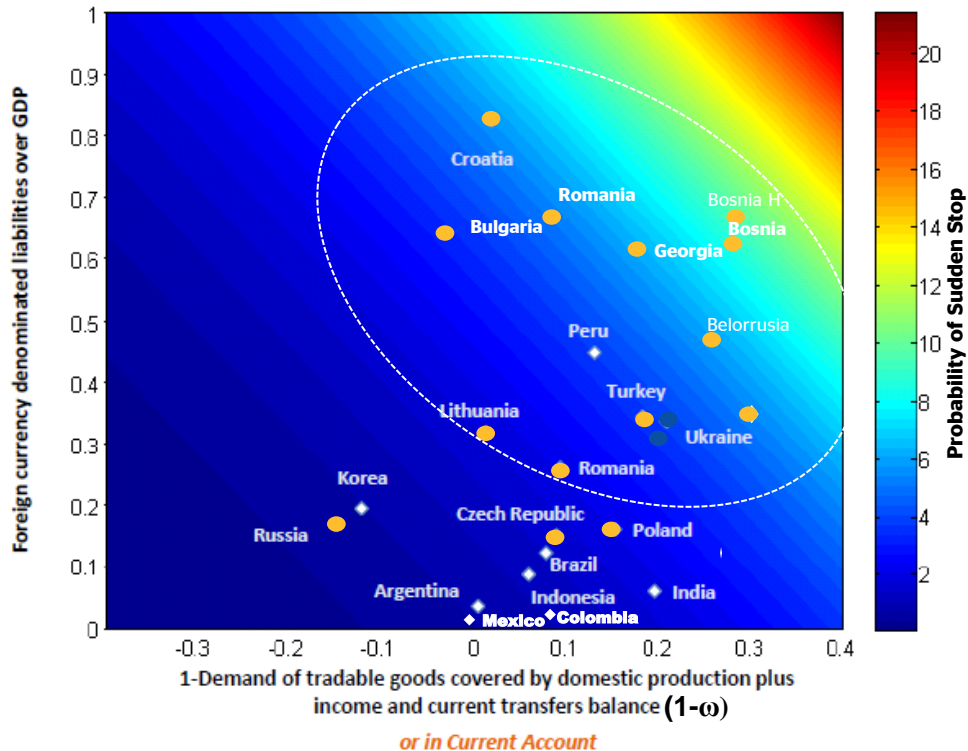


The probability of Capital Flows “Sudden Stops” is biased to Emerging Europe given the currency mismatch problem

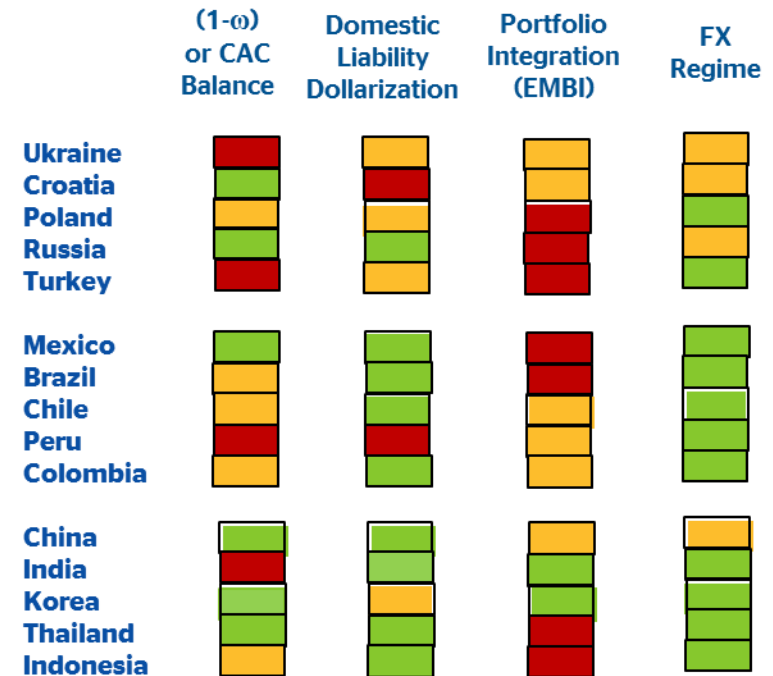
BBVA Research Systemic Sudden Stop* Pressure Map

(based on CAC Deficit and Domestic Liability Dollarization)

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



Key Ingredients to Sudden Stop Probability



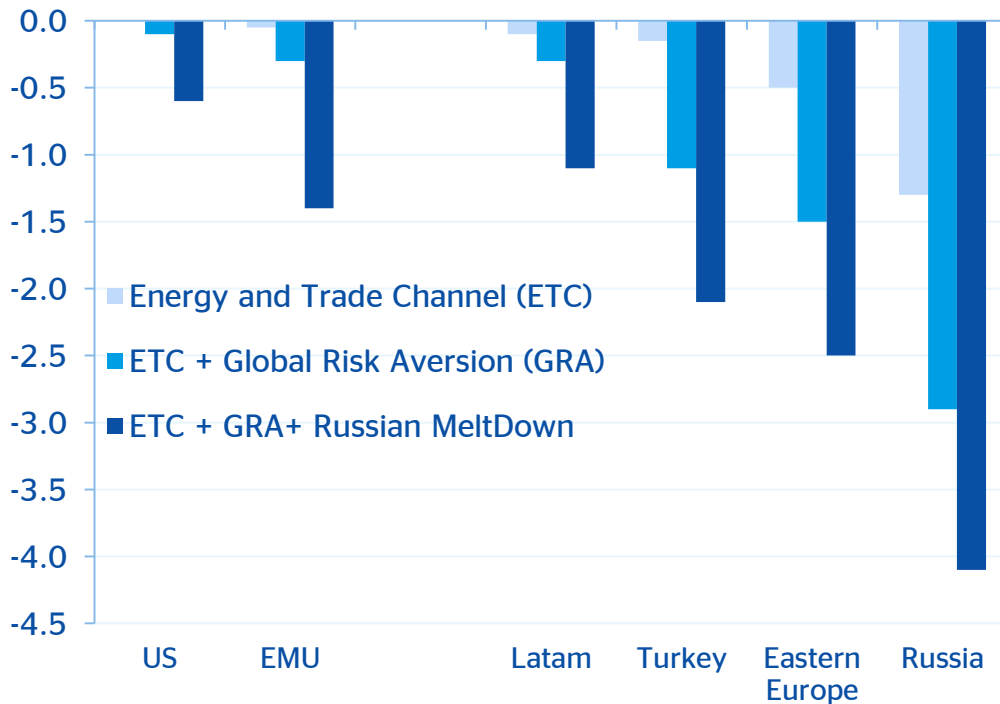
+12% +8% +4% 0% -4% -8% -12%

- 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)

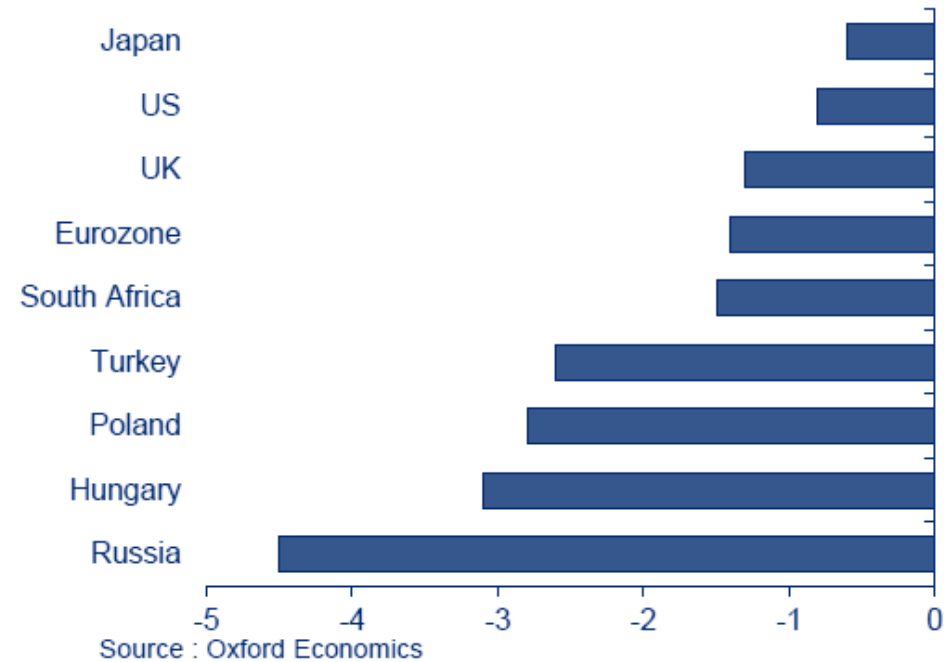
GDP Effects of Ukrainian-Russian Crisis Scenarios*

(% from base scenario cumulative 2014-15)
Source BBVA Research



GDP Effects of Ukrainian-Russian Crisis Scenarios (OEF)

(% difference in Level GDP versus baseline 2015)
Source OEF



Scenario 1: Energy and Trade Shock (short-lived)
Scenario 2: scenario 1+ Global Risk Aversión
Scenario 3: scenario 2 + Meltdown in Russia

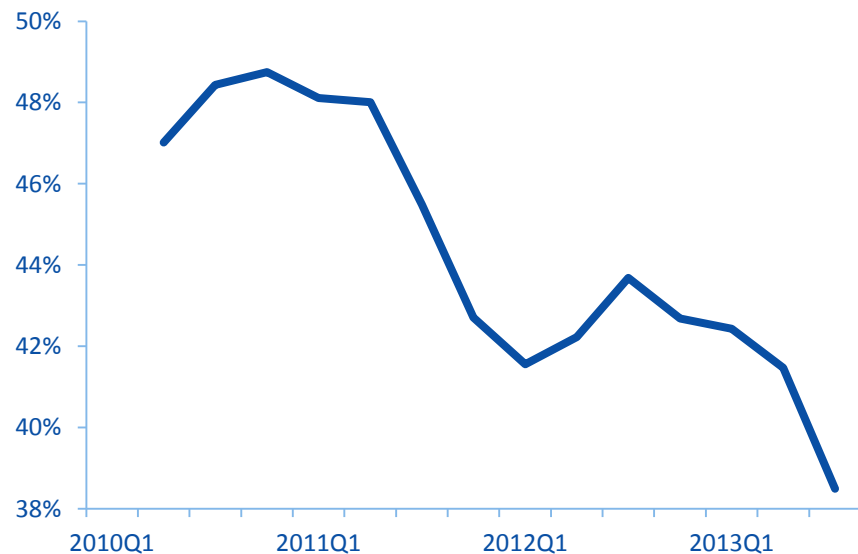
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Ukraine will need immediate assistance but institutional problems could limit the effects of the Bail Out..

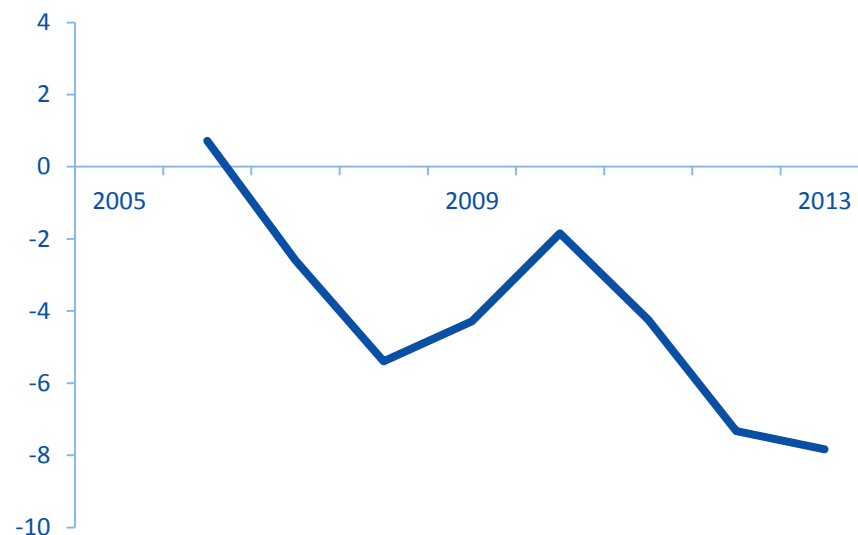
Ukraine: Cover Ratio (Reserves to Foreign short term liabilities)

Source: BBVA Research



Ukraine: Current account to GDP Source:

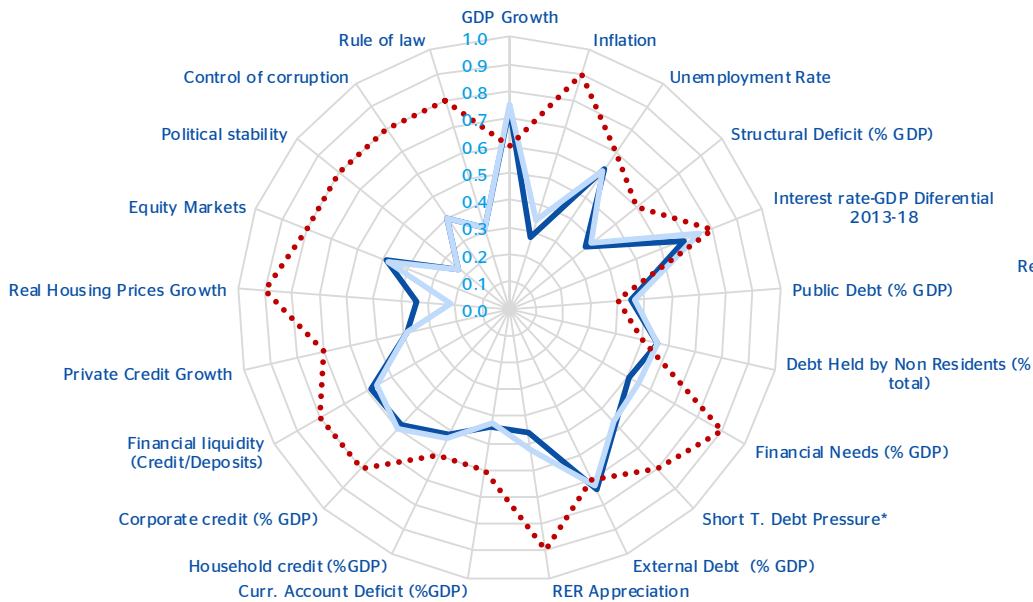
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Emerging Europe is at the top of EM vulnerability..

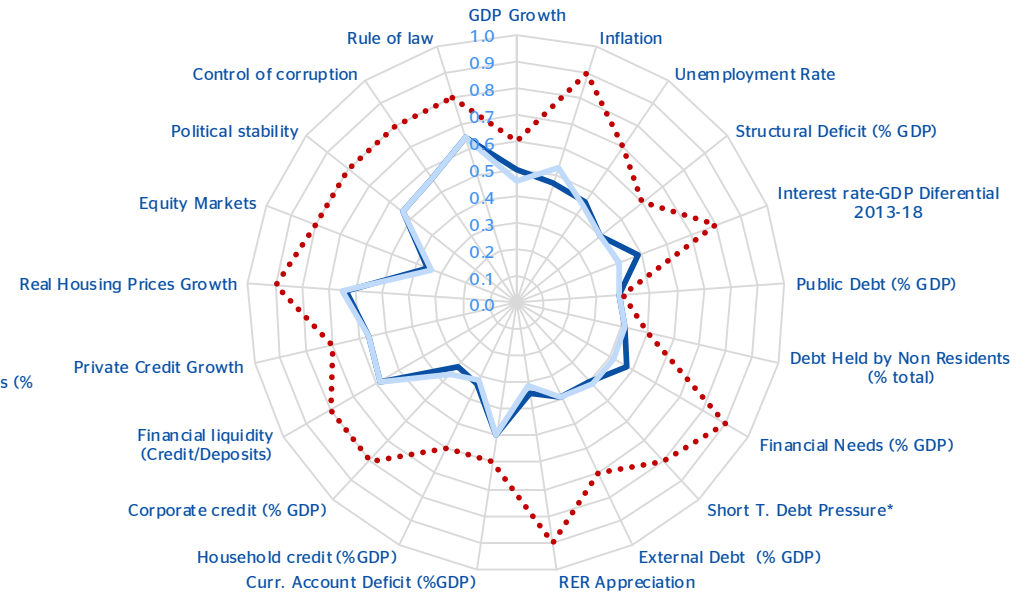
Emerging Europe: Vulnerability Radar 2014

(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

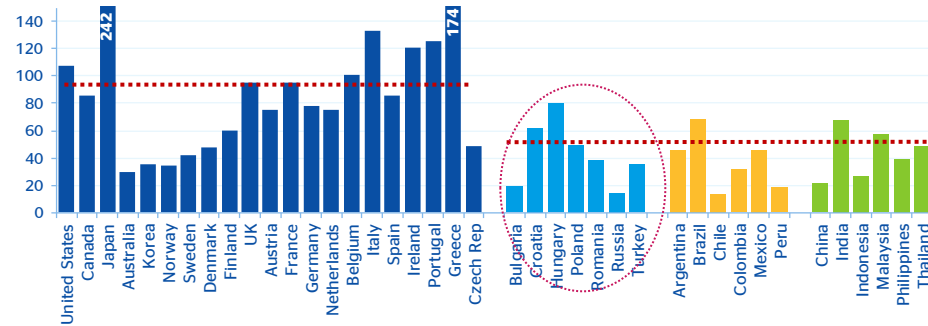
— Latam 2014
— Latam 2013
..... Risk Thresholds Emerging 2014

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..

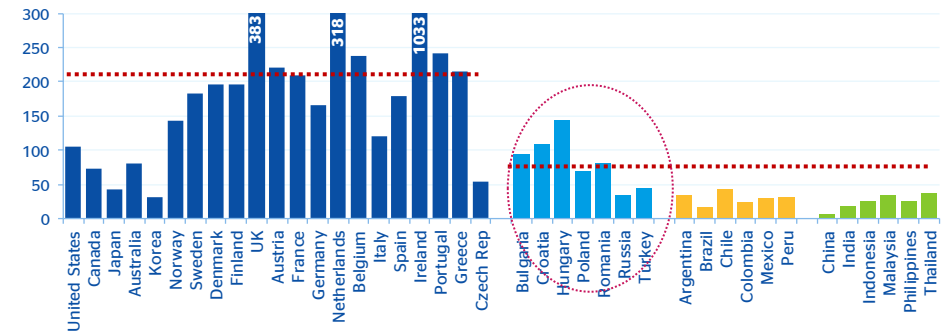
Gross Public Debt 2014

(% GDP)
Source: BBVA Research and IMF



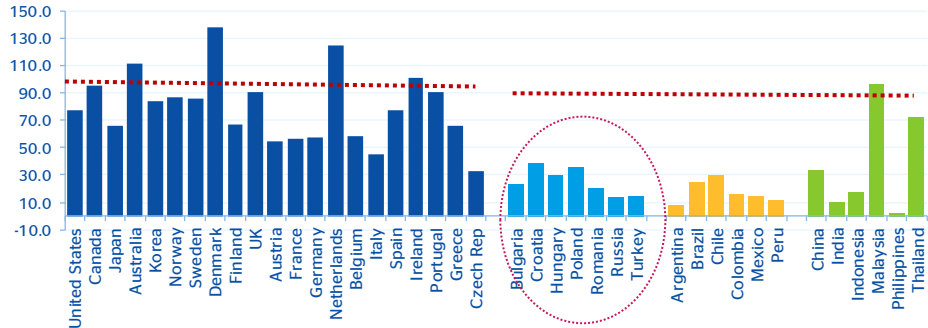
External Debt 2014

(% GDP)
Source: BBVA Research and IMF



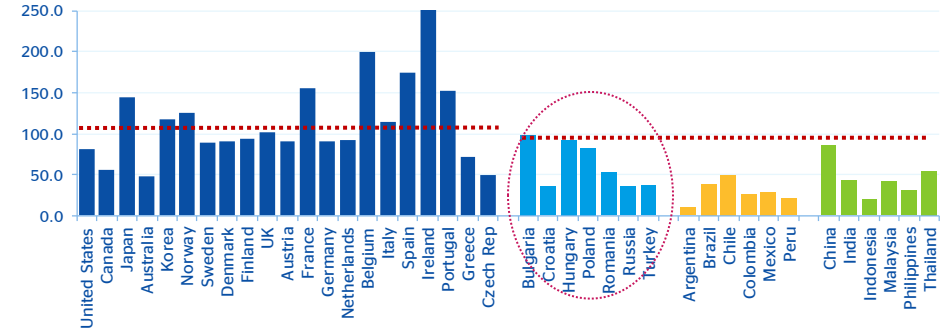
Household Debt 2014

(% GDP)
Source: BBVA Research and BIS



Corporate Sector Debt 2014

(% GDP, excluding bond issuances)
Source: BBVA Research and BIS

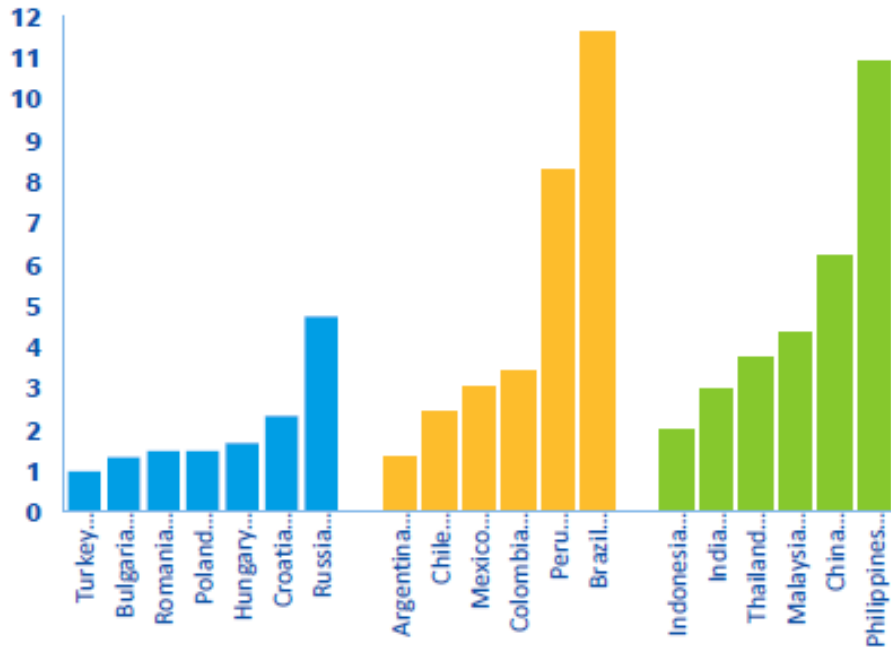


..... Risk Thresholds

Including Special and Relevant problems...

Emerging Markets: Current International Reserve Adequacy 2013

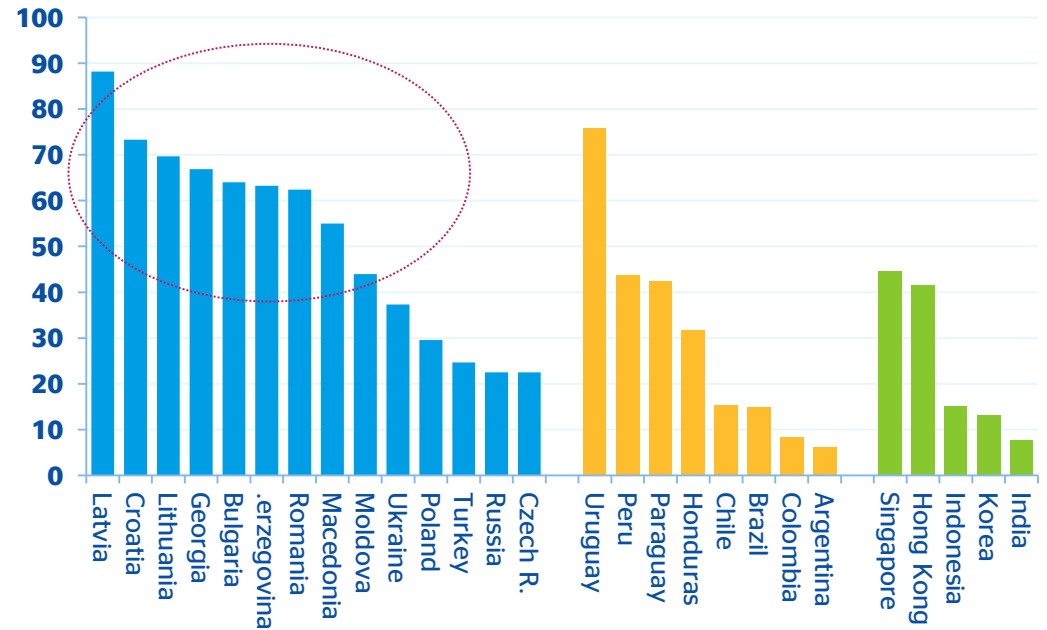
(%GDP)



Emerging Markets: FX Loans 2012

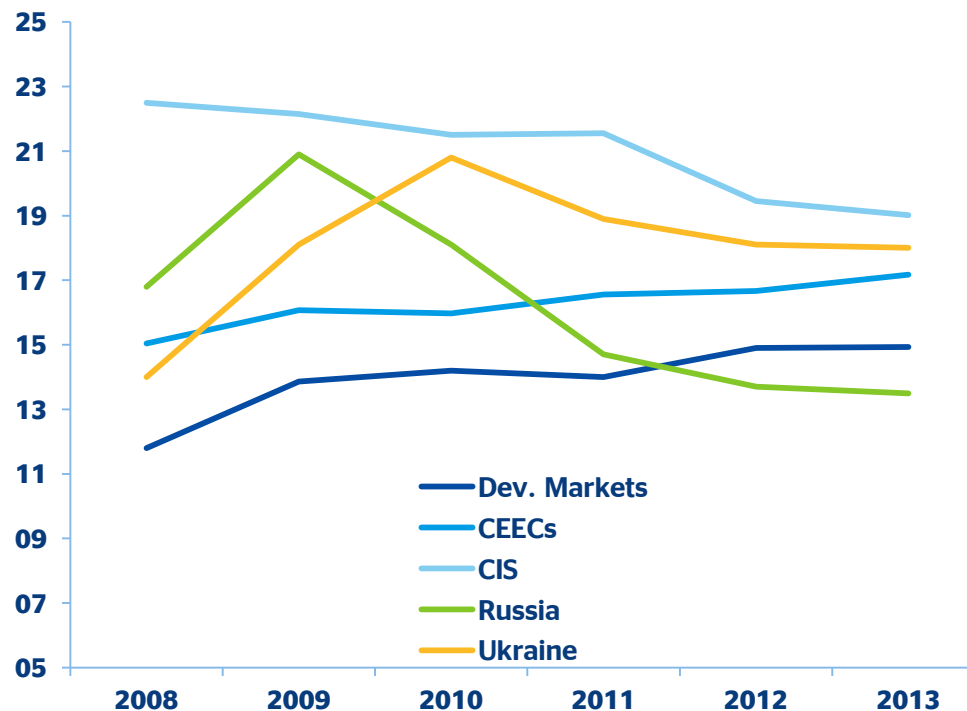
(% Total Loans, 2012 or latest available data)

Source: IMF



Although Banking Systems are well capitalized...

Capital Adequacy of the banking system
(regulatory capital ratios)

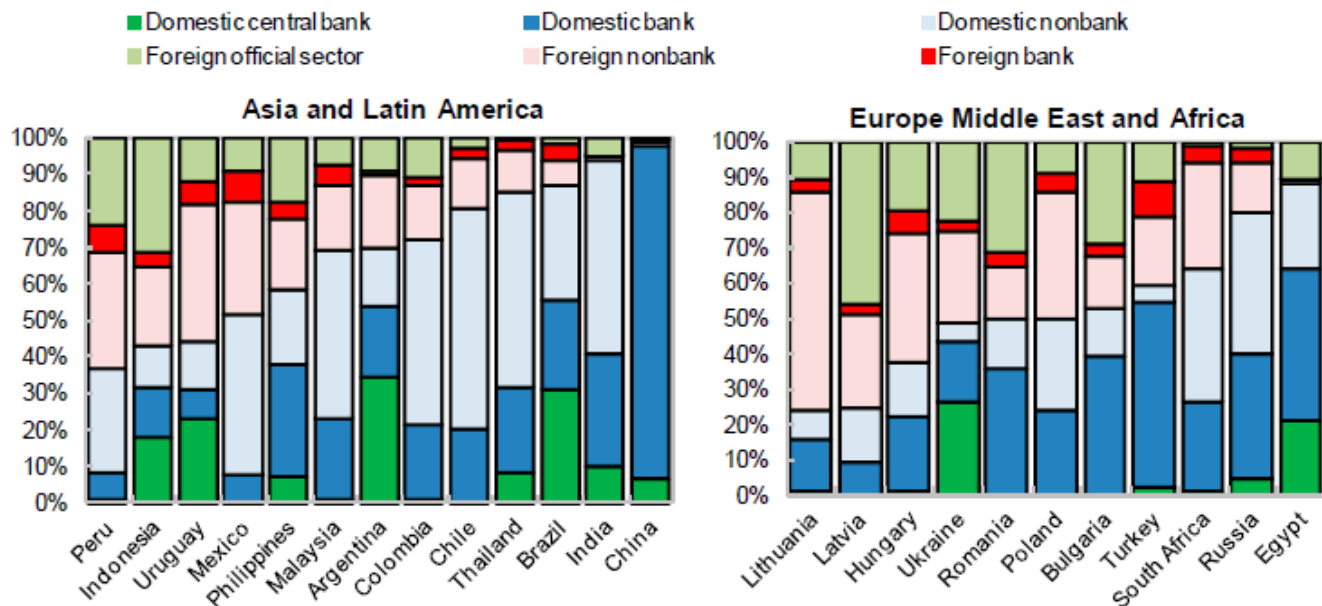


Corporate exposure to sovereign defaults is also relevant

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.