Country Risk Quarterly Report

BBVA Research

Cross-Country Emerging Markets Unit

December 2013

Summary

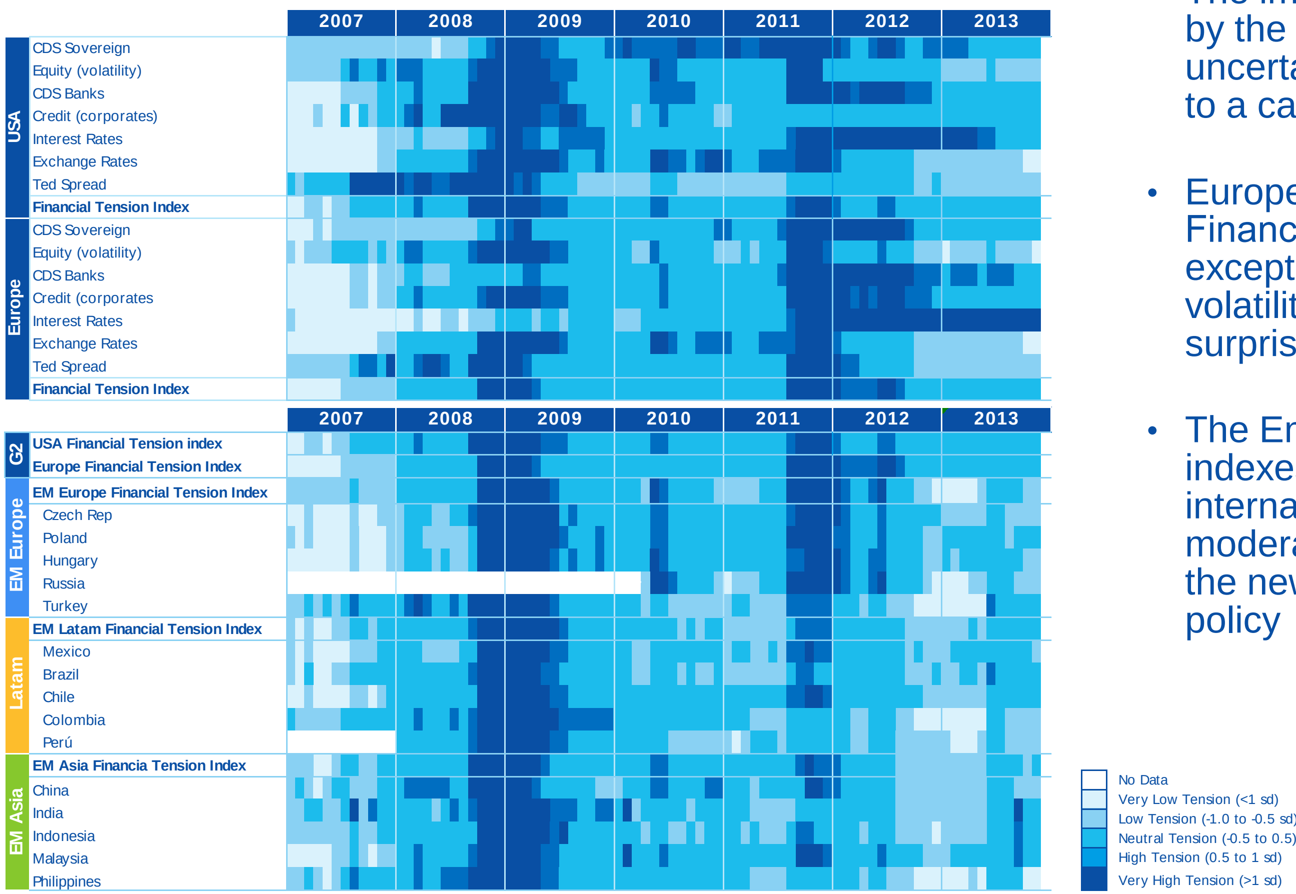
Financial Markets & Global Risk Aversion	• Uncertainty about the timing of the US Tapering announcement increased during the quarter with analyst still debating on the timing of the end of ultra loose monetary policy • European peripheral countries seem to be the most benefited from the easing of tensions supported also by the improvement in macroeconomic conditions in some important countries as Spain and Germany • However, the appetite for EM assets continues to be weaker than at the beginning of the year due to the mixed data coming from some of the largest EM (India, Brazil). Chinese economic data improved during the quarter
Sovereign Markets & Ratings Update	• Risk premia in most developed markets have continued the downward trend. CDS in Peripheral European countries have reached levels not observed since the beginning of the fiscal crisis in the first half of 2010 • Despite some fine tuning in the safest sovereigns (downgrades in France and Netherlands), there are incipient signs of a reversal in the EU periphery credit rating cycle (such as the improvement in the Spain's outlook by all the three agencies) • The positive momentum of the rating cycle remains in most EMs, with the upgrade of Peru and Colombia by Fitch. However, the negative trend in EM Europe continues, as the same agency downgraded Croatia
Our own country risk assessment	• The volatility period surrounding the last May-June about the US Tapering has started to recede. The improvement in communication skills by Western Central Bankers has provided some cushion, preparing financial markets to the beginning of policy normalization • Although improving, the Developed Economies continue to face important challenges including the improvement of public finances and economic growth • The Emerging Markets situation have also improved thanks to the better tone of financial markets and a historically low levels of vulnerability, including sound public, external and private balance sheet positions and lower levels of FX denominated liabilities (except in Eastern Europe). Flexible exchange rates have enhanced the exchange rate role as shock absorber but complacency is out of the question

Index

Section 1
Financial Markets Stress

BBVA Research Financial Stress Map

Source: BBVA



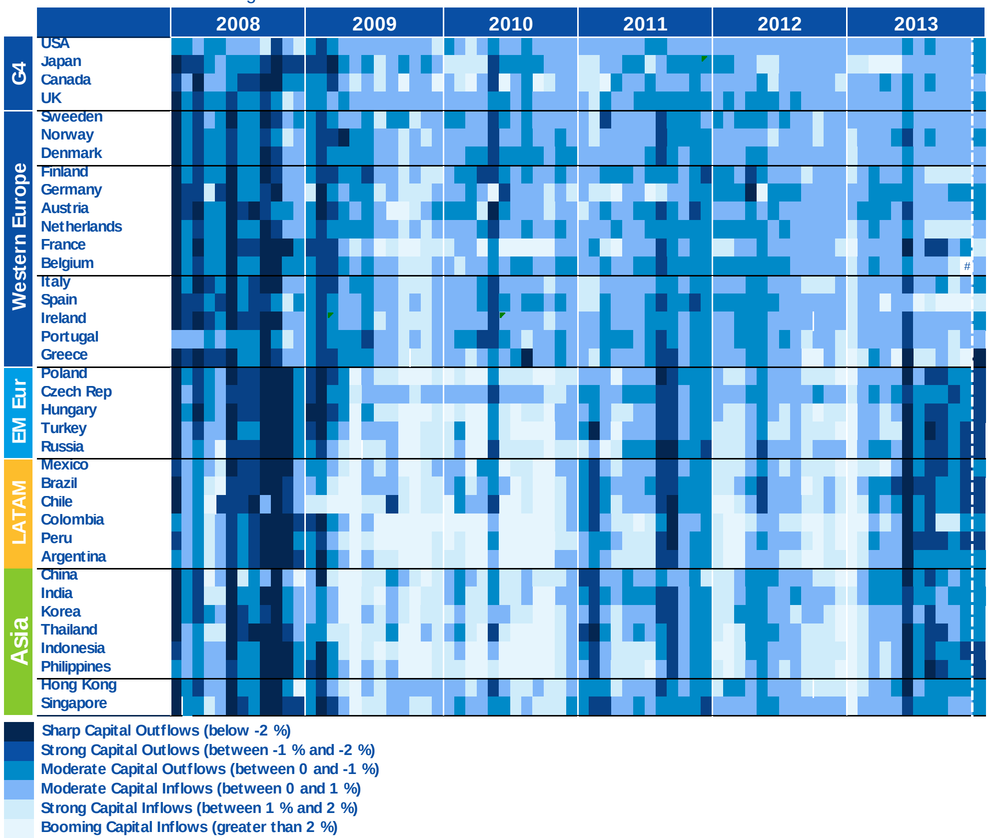
- The improvement in communication skills by the US Fed Officials and the end of the uncertainty about the new governor has led to a calmer period in the US markets.
- Europe´s Financial stress eased in most of Financial Tension Index's components, except the interest rate component whose volatility increased due to the ECB surprised reduction in the ECB repo.
- The Emerging Markets Financial Tensions indexes decoupling receded once the international portfolio re-balancing moderated and markets started to digest the new scenario for the US monetary policy

Section 1

Capital Flows Update

BBVA Country Portfolio Flows Map

(Country Flows over total Assets)
Source: BBVA Research through EPFR data



- Portfolio re-allocation continued during the quarter although net capital outflows have visibly moderated from Q3 since most the rebalancing has been already achieved (95% of the excess has been corrected) and Fed's action has been priced in

- The ongoing portfolio re-balancing process continued (although at slower pace) and the adjustment looks now near completion

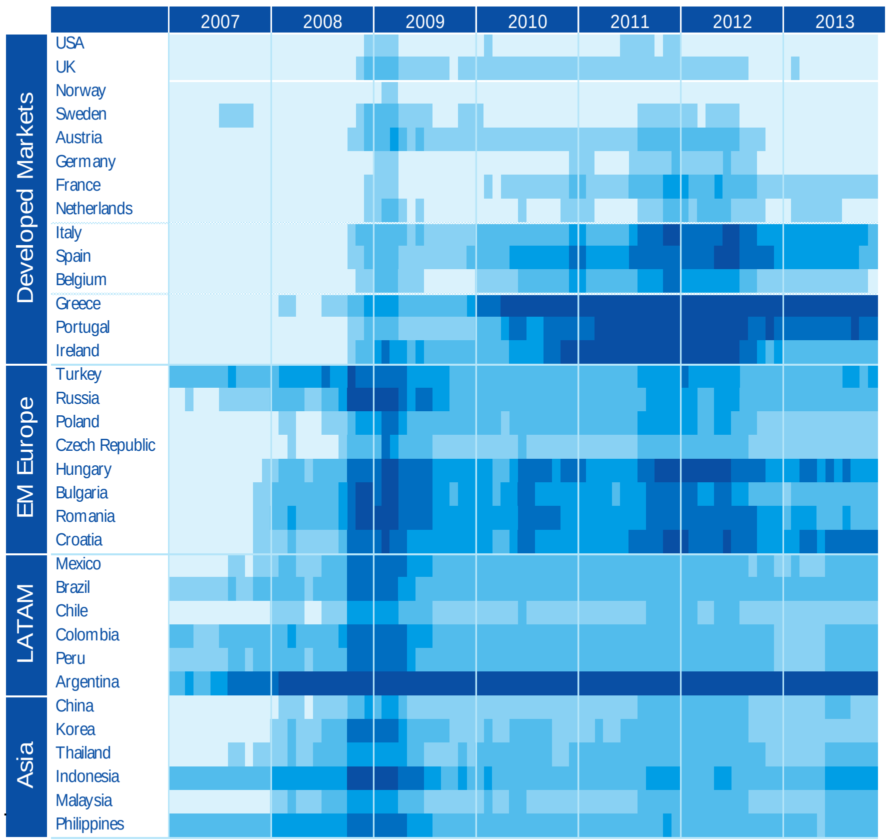
- *Institutionals* strongly rebalanced their positions from EM treasuries into DM's equity: liquid bond positions in E. Europe and LatAm were undone in exchange for equity and some under-priced treasuries from the Periphery (Spain). *Retailers* followed on European equity too but remained neutral on their position in EMs

Section 2

Sovereign Markets Update

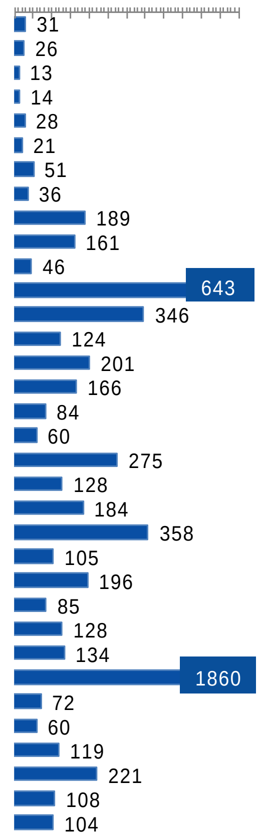
Sovereign CDS spreads

Source: Datastream and BBVA Research



Nov. 2013

End of Month



Sovereign CD Swaps Map: It shows a color map with 6 different ranges of CD Swaps quotes (darker >500, 300 to 500, 200 to 300, 100 to 200, 50 to 100 and the lighter below 50 bp)

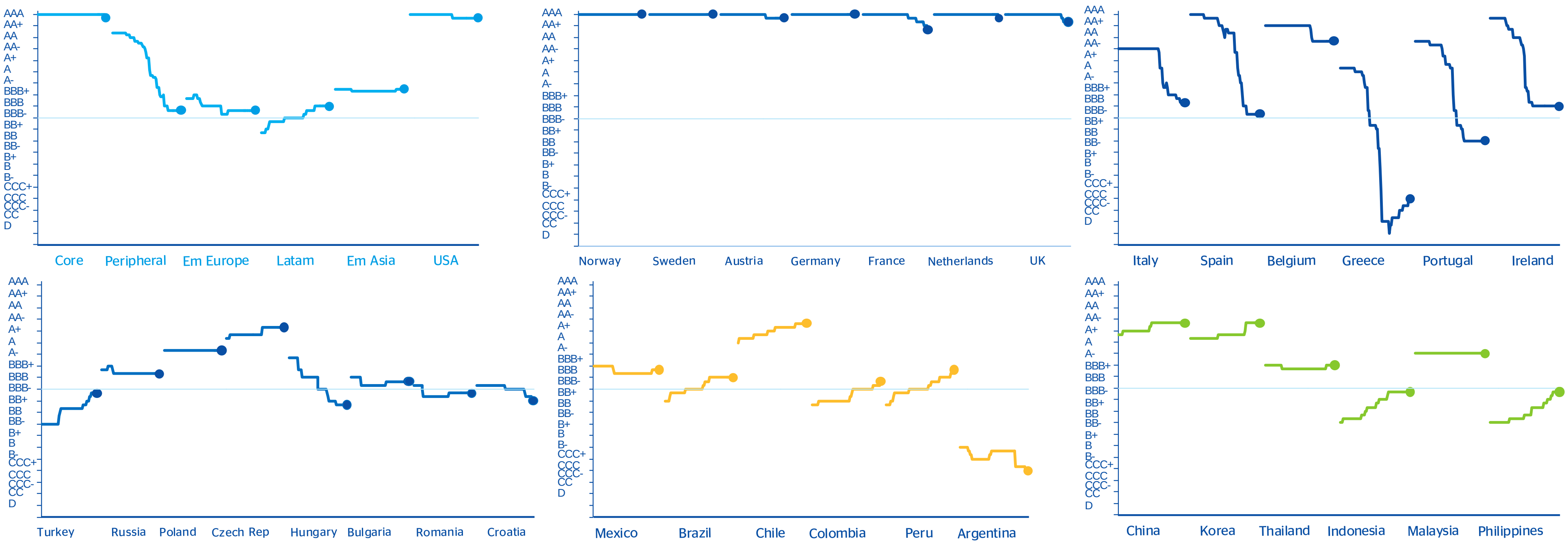
- European periphery's CDS spreads had remarkably decreased in the last quarter, being Greece, Portugal, Spain and Italy the most benefited (4000bp, 170bp, 130bp and 90bp lower than their respective maxima of 2013)
- Most EM Europe's CDS remained stable through the last quarter. Russia had the strongest decrease, meanwhile Croatia suffered the strongest rise
- Latin America sovereign CDS spreads have also remained stable after the rise they suffered in the previous two quarters
- Most of Asian sovereigns spreads experienced a reversal and decreased during this quarter after being the region that suffered the strongest increase in the previous one

Section 2

Sovereign Credit Ratings Update

Sovereign Rating Index 2007-2013

Source: BBVA Research by using S&P, Moodys and Fitch Data



Sovereign Rating Index: An index that translates the three important rating agencies ratings letters codes (Moody´s, Standard & Poor´s and Fitch) to numerical positions from 20 (AAA) to default (0). The index shows the average of the three rescaled numerical ratings.

- Developed Economies: France suffered a new downgrade, this time by S&P, who also downgraded Netherlands. On the other hand, S&P upgraded Greece by two notches and S&P and Fitch improved their outlook for Spain
- Emerging Markets: Peru and Colombia were upgraded again, this time by Fitch, and Croatia was downgraded also by Fitch

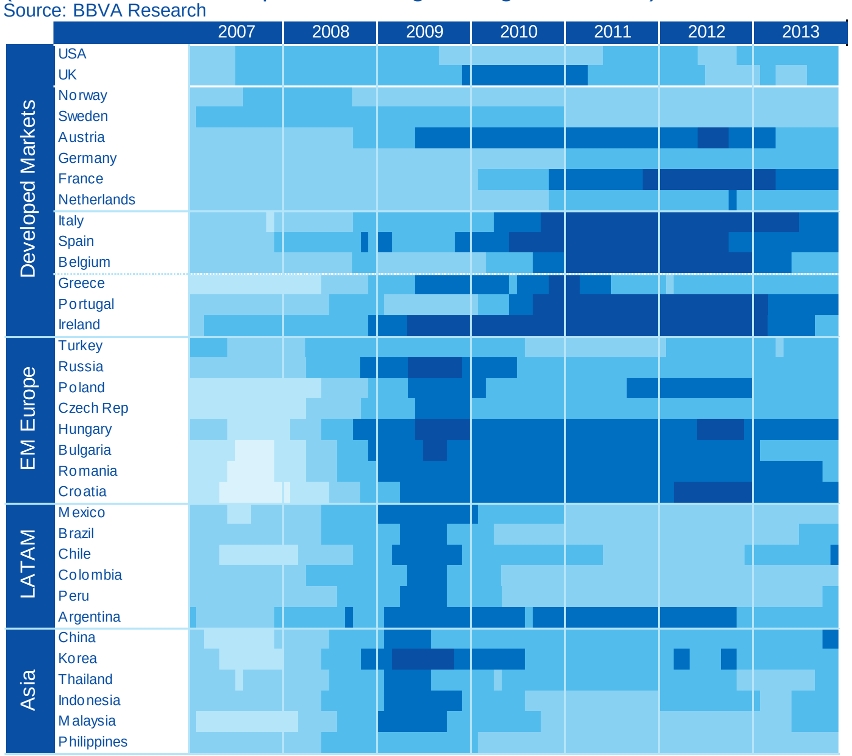
Section 2

Sovereign downgrade Pressures Map

Rating Agencies Downgrade Pressure Map

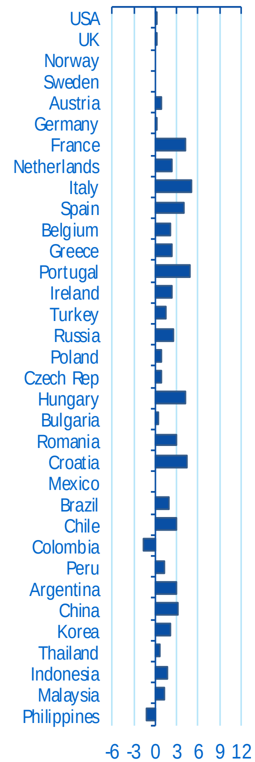
(actual minus CDS-implied sovereign rating, in notches)

Source: BBVA Research



Nov. 2013

End of Month



- The gap between implicit and observed ratings in Europe’s periphery is shrinking thanks to the decrease in most CDS spreads
- In Emerging Europe, downgrade risk remained stable in most of the cases although continues to be high in Hungary and Croatia
- Downgrade pressure in Latin-America continue to be small. It is worth noting the case of Chile, who had a negative gap one year ago. The table does not reflect the most recent upgrade of Colombia (December), which is in line with the previous negative gap
- In Asia, downgrade pressure is in the neutral area, with some minor downgrade pressures in China

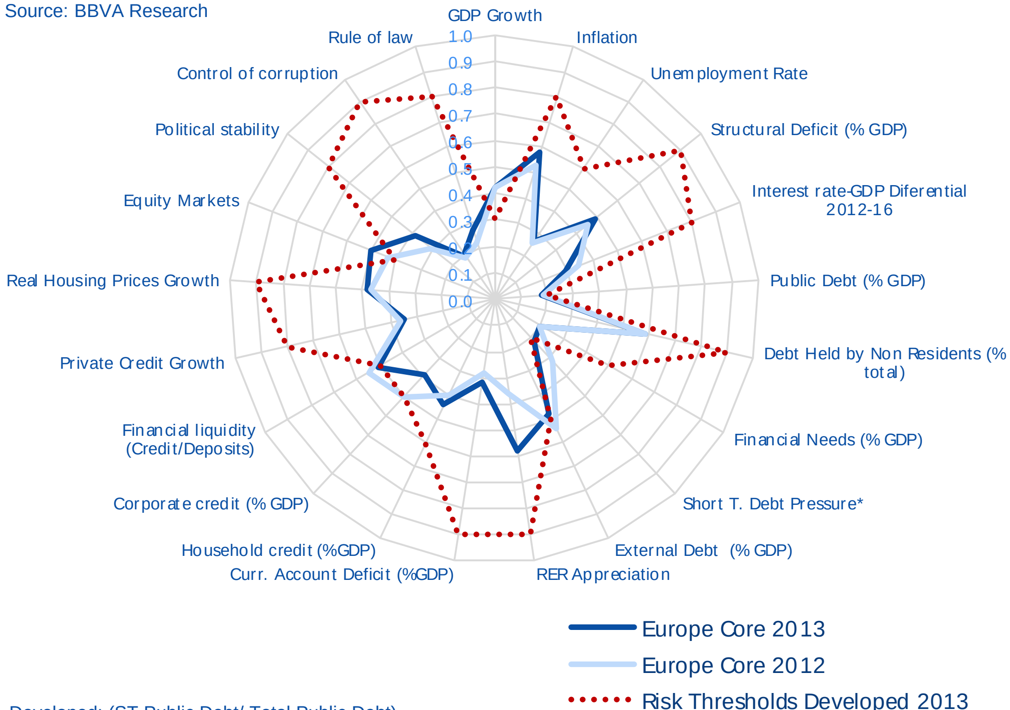
Downgrade Pressure Map: The map shows the difference of the current ratings index (numerically scaled from default (0) to AAA (20)) and the implicit ratings according to the Credit Default Swaps. We calculate implicit probabilities of default (PDs) from the observed CDS and the estimated equilibrium spread. For the computation of these PDs we follow a standard methodology as the described in Chan-Lau (2006) and we assume a constant Loss Given Default of 0.6 (Recovery Rate equal to 0.4) for all the countries in the sample. We use the resulting PDs in a cluster analysis to classify each country at every point in time in one of 20 different categories (ratings) to emulate the same 20 categories used by the Rating Agencies.

Section 3

Regional Risk Update: Core Europe

Europe Core Countries: Vulnerability Radar 2013

(Relative position for the Emerging Developed countries. Max Risk=1, Min Risk=0)
*Include Austria, Belgium, France, Germany, Denmark, Norway and Sweden
Source: BBVA Research



Developed: (ST Public Debt/ Total Public Debt)
Emerging : (Reserves to ST External Debt)
1: High vulnerability
0: Low vulnerability

Private credit risk and banking liquidity is below risk thresholds. Public finance vulnerability indicators are also quite low.

Equity markets are currently slightly above the risk threshold for this year

Low GDP Growth is still the main vulnerability

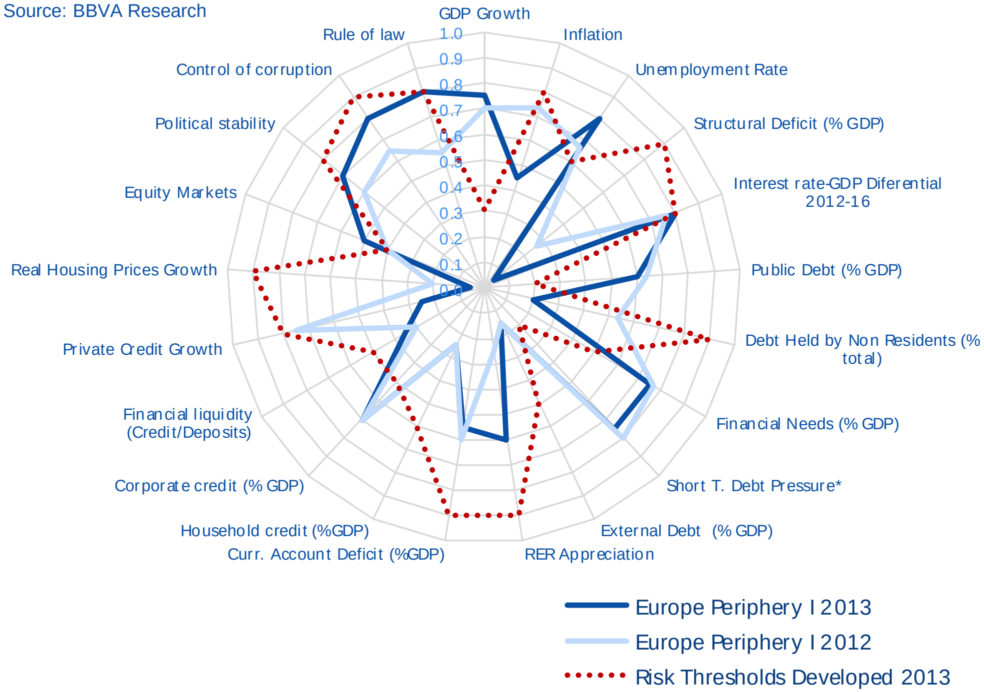
Vulnerability Radar: Shows a static and comparative vulnerability for different countries. For this we assigned several solvency , liquidity and macro variables and we reorder in percentiles from 0 (lower ratio among the countries to 1 maximum vulnerabilities.) Furthermore Inner positions in the radar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

Section 3

Regional Risk Update: Europe Periphery I

Europe Periphery I: Vulnerability Radar 2013

(Relative position for the Developed Market countries. Max Risk=1, Min Risk=0)
*Include Spain and Italy
Source: BBVA Research



Developed: (ST Public Debt/ Total Public Debt)
Emerging : (Reserves to ST External Debt)
1: High vulnerability
0: Low vulnerability

Structural Public Deficit, housing prices growth, and Private credit growth are all at minimum risk levels.

Interest rate-GDP differential is on the rise due to lower GDP growth. Inflation is at very low historical levels.

Activity and employment indicators remain poor, together with Public Debt and public finance liquidity indicators

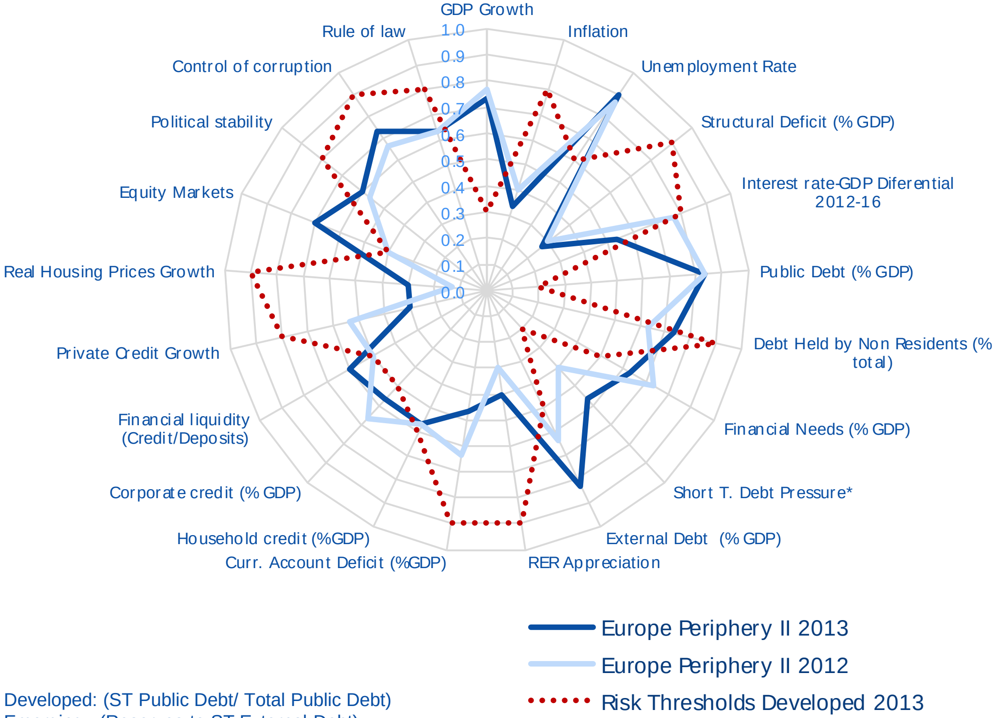
Vulnerability Radar: Shows a static and comparative vulnerability for different countries. For this we assigned several solvency , liquidity and macro variables and we reorder in percentiles from 0 (lower ratio among the countries to 1 maximum vulnerabilities.) Furthermore Inner positions in the radar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

Section 3

Regional Risk Update: Europe Periphery II

Europe Periphery II: Vulnerability Radar 2013

(Relative position for the Developed Market countries. Max Risk=1, Min Risk=0)
*Include Greece, Ireland and Portugal
Source: BBVA Research



Developed: (ST Public Debt/ Total Public Debt)
Emerging : (Reserves to ST External Debt)
1: High vulnerability
0: Low vulnerability

Structural public deficit well below the risk threshold. Private credit growth, household credit and real housing prices continue to adjust

Equity Markets growth continue above risk thresholds for the year. Inflation at very low historical levels

Public and External debt vulnerability still growing. Banking liquidity is worsening with respect to previous quarter

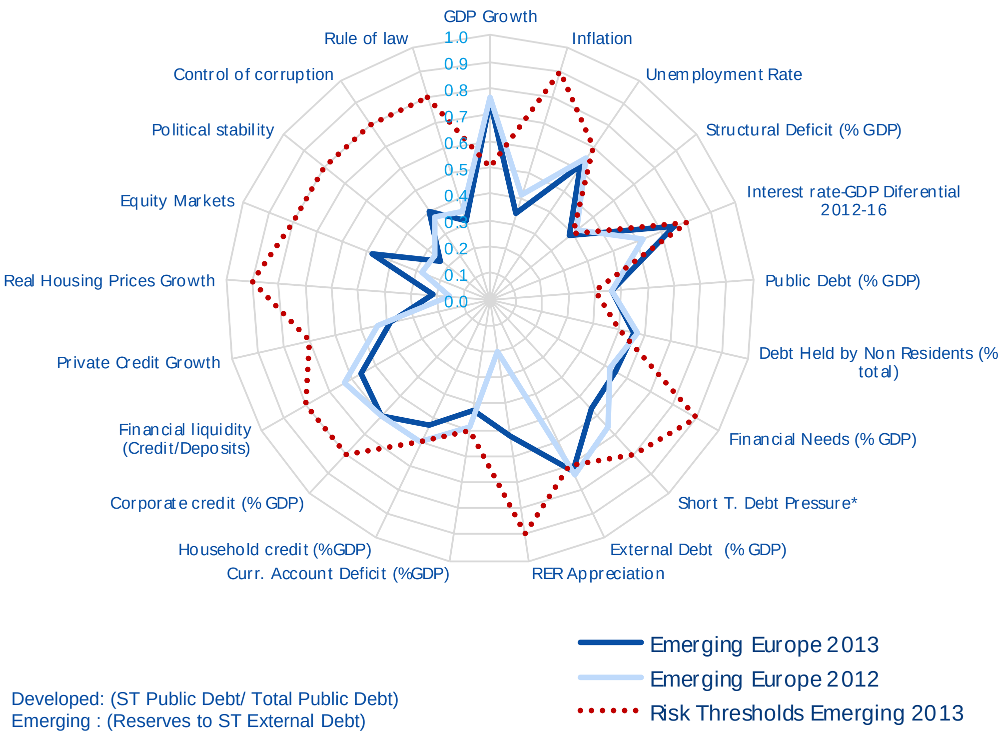
Vulnerability Radar: Shows a static and comparative vulnerability for different countries. For this we assigned several solvency , liquidity and macro variables and we reorder in percentiles from 0 (lower ratio among the countries to 1 maximum vulnerabilities.) Furthermore Inner positions in the radar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

Section 3

Regional Risk Update: Emerging Europe

Emerging Europe: Vulnerability Radar 2013

(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

Most of the vulnerabilities are below their corresponding risk thresholds and are stable with respect to previous quarter.

Private Credit growth further accelerating in Turkey and Russia. Current account problems in some countries

Public and external debt levels still high. Poor growth place risks on debt dynamics through interest rate-GDP differentials

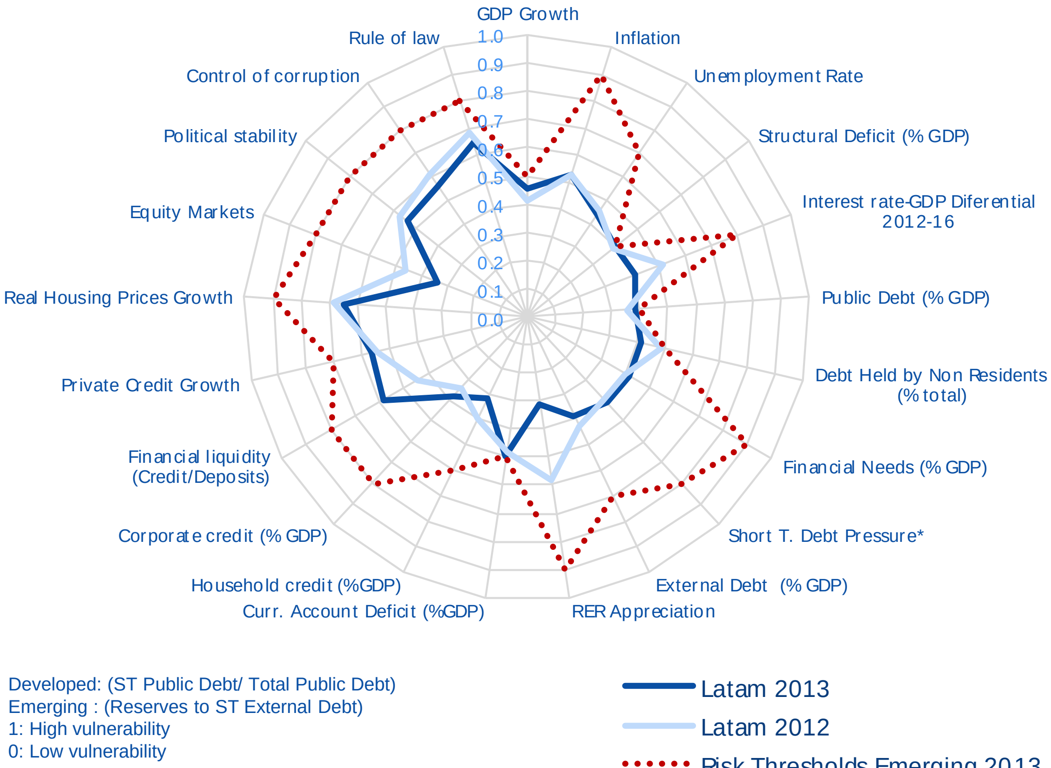
Vulnerability Radar: Shows a static and comparative vulnerability for different countries. For this we assigned several solvency , liquidity and macro variables and we reorder in percentiles from 0 (lower ratio among the countries to 1 maximum vulnerabilities.) Furthermore Inner positions in the radar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

Section 3

Regional Risk Update: Latam

Latam: Vulnerability Radar 2013

(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

Private credit growth has clearly moderated with respect to previous quarter.

Economic growth weakens in some countries

Current Account vulnerability is rising again with respect to previous quarter, although is still below risk threshold

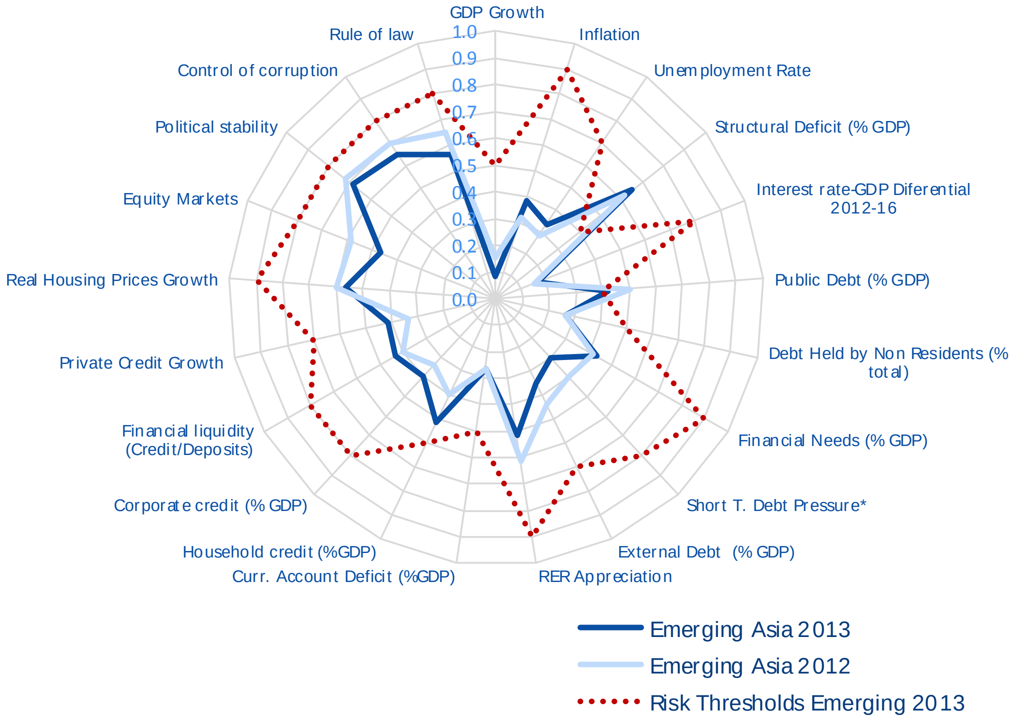
Vulnerability Radar: Shows a static and comparative vulnerability for different countries. For this we assigned several solvency , liquidity and macro variables and we reorder in percentiles from 0 (lower ratio among the countries to 1 maximum vulnerabilities.) Furthermore Inner positions in the radar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

Section 3

Regional Risk Update: Asia

Emerging Asia: Vulnerability Radar 2013

(all data for 2012, 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

Activity indicators continued to be mixed but still among the most solid in the Emerging Markets

Private Credit and housing prices risks growth keep on rising in China

Structural fiscal deficits above the risk thresholds in some countries

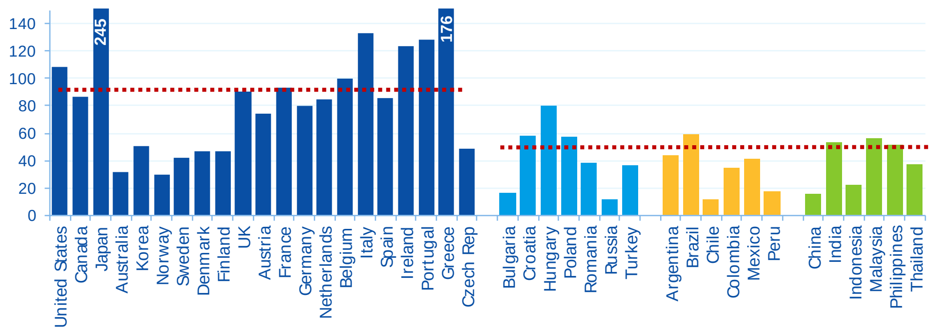
Vulnerability Radar: Shows a static and comparative vulnerability for different countries. For this we assigned several solvency , liquidity and macro variables and we reorder in percentiles from 0 (lower ratio among the countries to 1 maximum vulnerabilities.) Furthermore Inner positions in the radar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

Section 3

Public and Private Debt Chart Gallery

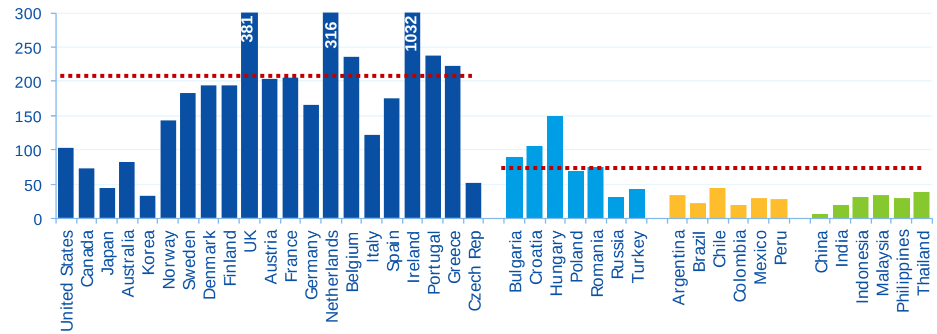
Gross Public Debt 2013

(% GDP)
Source: BBVA Research and IMF



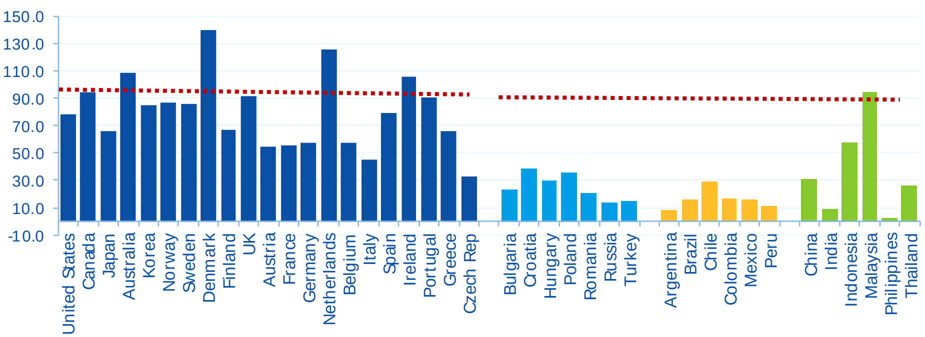
External Debt 2013

(% GDP)
Source: BBVA Research and IMF



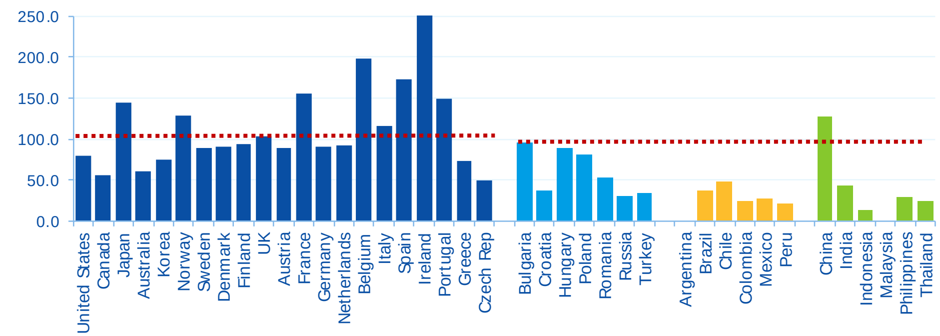
Household Debt 2013

(% GDP)
Source: BBVA Research and BIS



Corporate Sector Debt 2013

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



Risk Thresholds

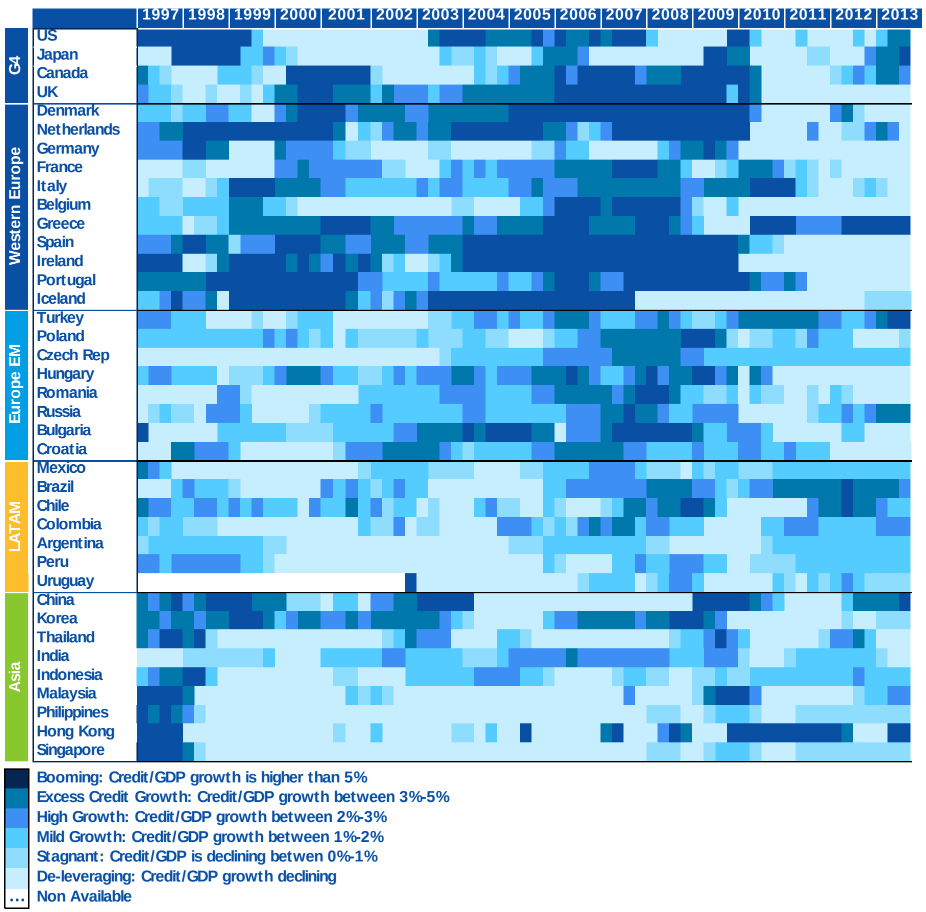
Section 3

Private Credit Pulse

Private credit colour map (1997-2013 Q4)

(yearly change of private credit-to-GDP ratio)

Source: BBVA Research and Haver



- Credit-to-GDP ratio continues rising in the US, and it is starting to show signs of a rapid acceleration in Japan. Credit ratio also continues to grow fast in Greece limiting the necessary de-leveraging process

- Turkey and Russia continue showing signs of a rapid expansion of private credit, although the most recent data from Q4 in Turkey (not included in this report) shows that it is already moderating. The rest of the countries in Emerging Europe continue experiencing their deleveraging process

- The growth of private credit in Latin America is slowing down its pace throughout the whole region

- In Asia, credit growth continues to be fast in China and Hong Kong. There are no signs of excess credit growth in the rest of the countries

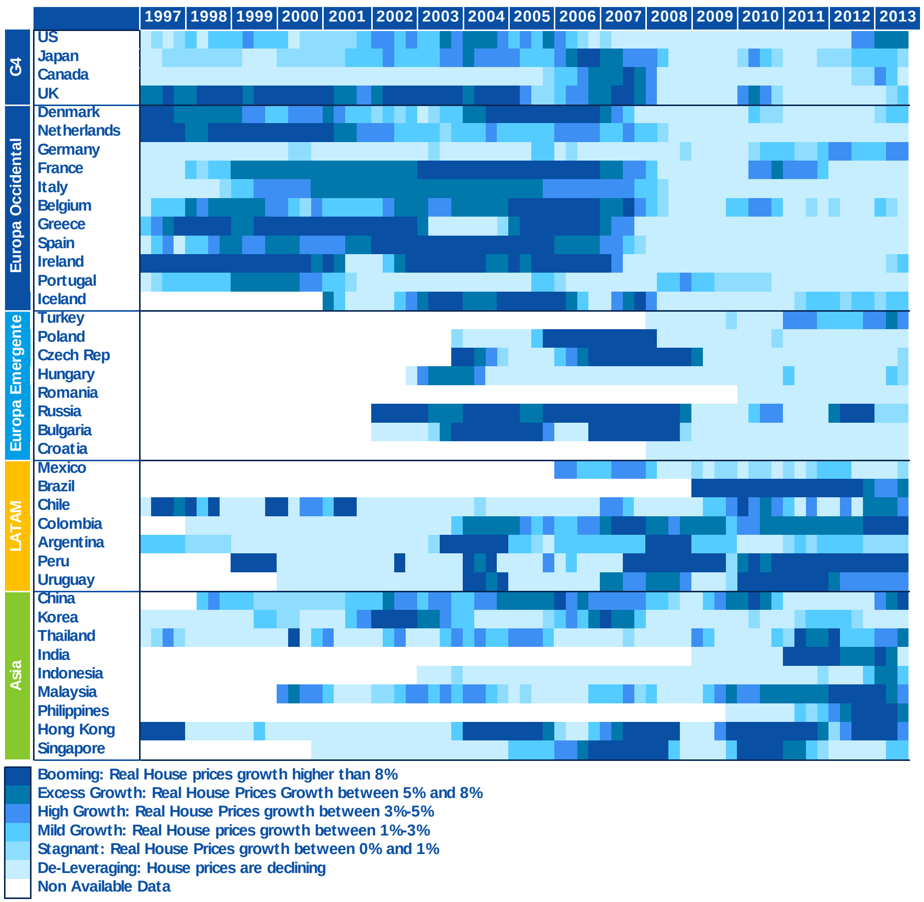
Section 3

Real Housing Prices Pulse

Real housing prices colour map (1997-2013 Q4)

(yearly change of real housing prices)

Source: BBVA Research, BIS and Global Property Guide

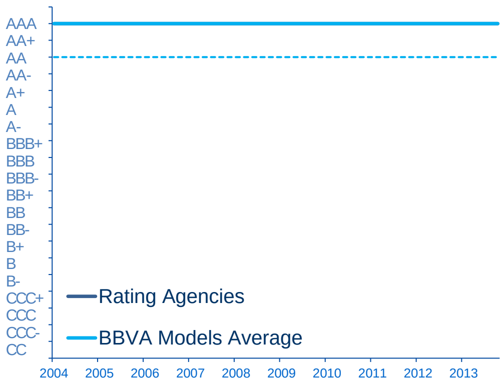


- Real housing prices growth continues its recovery in the US and the UK. Germany continues to lead housing prices growth in Europe. First signs of recovery in Ireland
- Housing prices continue to freeze in most Emerging Europe countries, with some exceptions as Turkey (although housing prices are not growing as fast as credit)
- In Latin America, housing prices are growing almost everywhere, with the exceptions of Mexico and Argentina. Colombia and Peru are the ones who could call for some concern, since prices have been booming for several quarters, especially in Peru
- Housing prices growth has slowed its pace all over Emerging Asia, with the exception of China, where prices have accelerated its growth rate in the last quarter

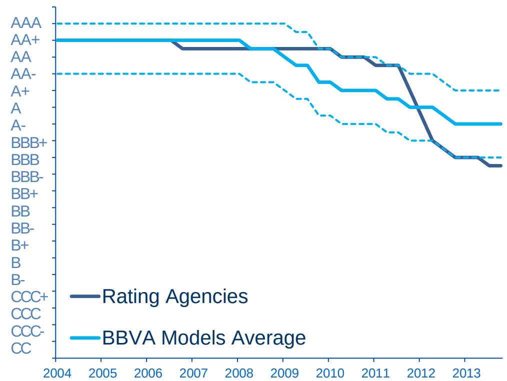
Section 3

Regional Risk Update: Western Europe

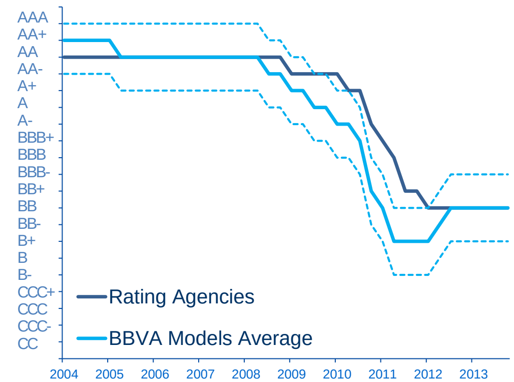
Europe Core: Sovereign Rating
(Rating agencies and BBVA scores +-1std dev)
Source: Standard & Poors, Moody´s, Fitch and BBVA Research



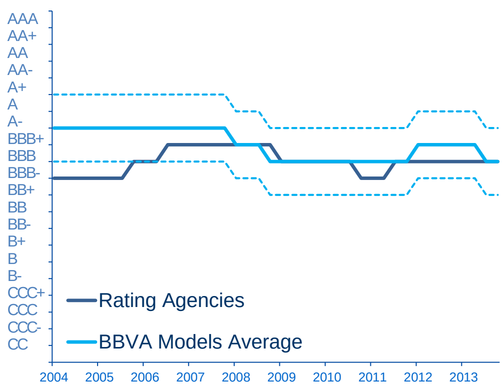
Europe Periphery I: Sovereign Rating
(Rating agencies and BBVA scores +-1 std dev)
Source: Standard & Poors, Moody´s, Fitch and BBVA Research



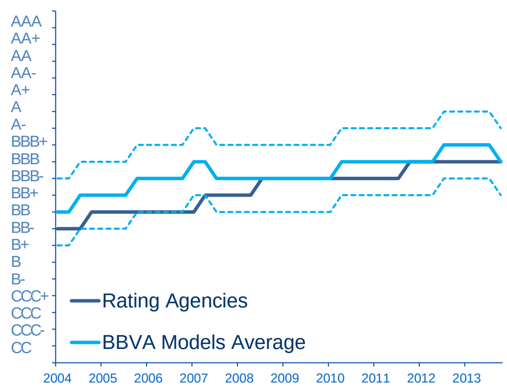
Europe Periphery II: Sovereign Rating
(Rating agencies and BBVA scores +.1 std dev)
Source: Standard & Poors, Moody´s, Fitch and BBVA Research



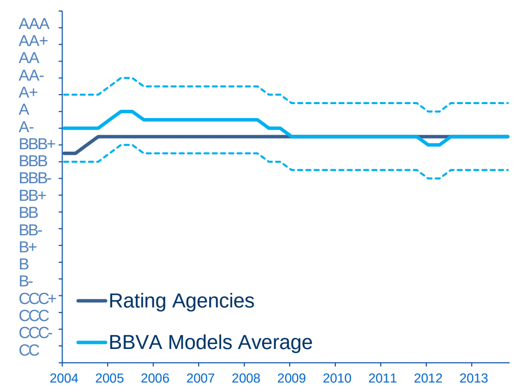
EM Europe: Sovereign Rating
(Rating agencies and BBVA scores)
Source: Standard & Poors, Moody´s, Fitch and BBVA Research



Latam: Sovereign Rating
(Rating agencies and BBVA scores)
Source: Standard & Poors, Moody´s, Fitch and BBVA Research

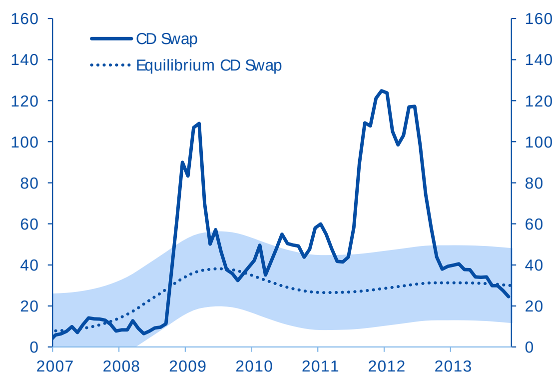


Emerging Asia: Sovereign Rating
(Rating agencies and BBVA scores)
Source: Standard & Poors, Moody´s, Fitch and BBVA Research

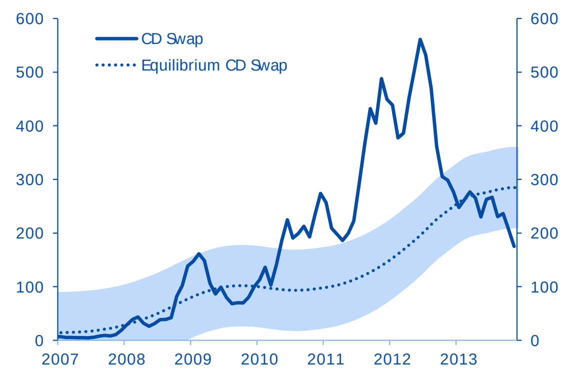


Section 3
Regional Risk: CD Swaps Update

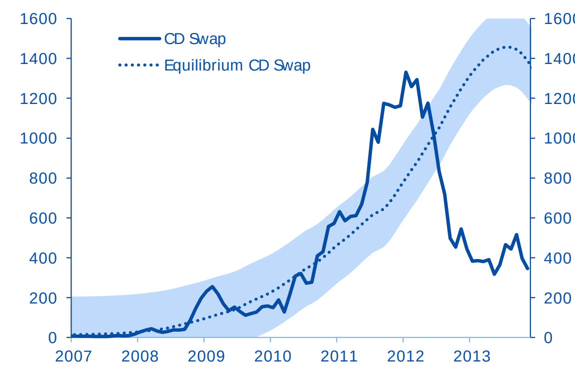
Europe Core: CD Swap 5 year
(equilibrium: average of 4 alternative models + 0.5 Standard deviation)



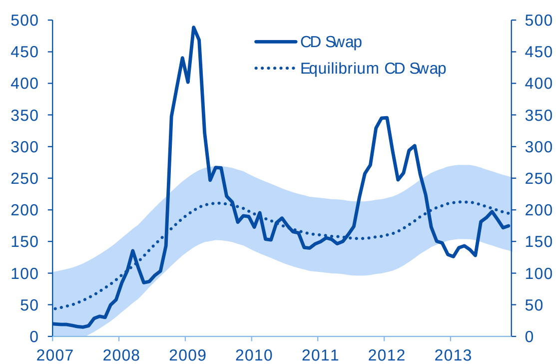
Europe Periphery I: CD Swap 5 year
(equilibrium: average of 4 alternative models + 0.5 Standard deviation)



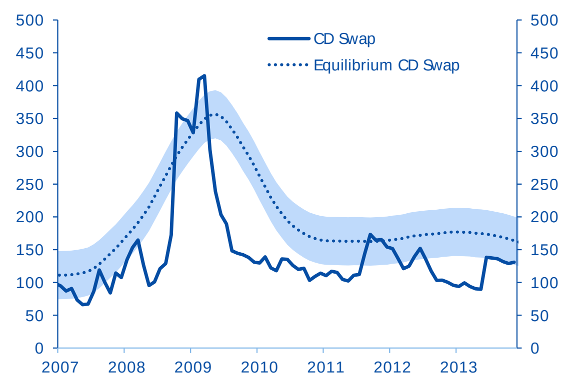
Europe Periphery II: CD Swap 5 year
(equilibrium: average of 4 alternative models + 0.5 Standard deviation)



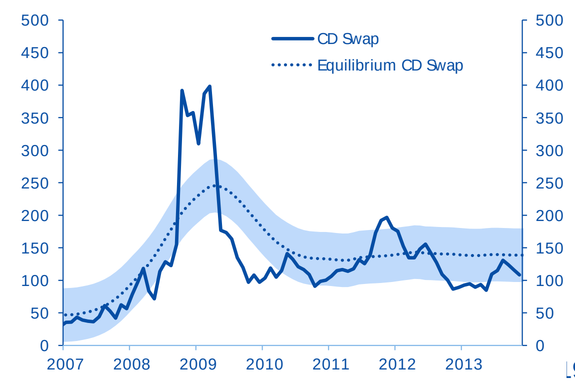
EM Europe: CD Swap 5 year
(equilibrium: average of 4 alternative models + 0.5 Standard deviation)



LATAM: CD Swap 5 year
(equilibrium: average of 4 alternative models + 0.5 Standard deviation)



EM Asia: CD Swap 5 year
(equilibrium: average of 4 alternative models + 0.5 Standard deviation)



Section 3

Vulnerability Indicators: Developed Economies

Vulnerability Indicators* 2013: Developed Countries

Source: BBVA Research, Haver, BIS, IMF and World Bank

	Fiscal Sustainability			External Sustainability			Liquidity Management			Macroeconomic Performance			Credit and housing			Private debt			Institutional		
	Structural Primary Balance **(1)**	Interest rate GDP growth differential 2013-17	Gross Public Debt **(1)**	Current Account Balance **(1)**	External Debt **(1)**	RER Appreciation **(2)**	Gross Financial Needs **(1)**	Short Term Public Debt **(3)**	Debt Held by non Residents **(3)**	GDP Growth **(4)**	Consumer prices **(4)**	Unemployment Rate **(5)**	Private Credit to GDP Growth **(4)**	Real Housing Prices Growth **(4)**	Equity Markets Growth **(4)**	Household Debt **(1)**	NF Corporate Debt **(1)**	Financial liquidity **(6)**	WB Political Stability **(7)**	WB Control Corruption **(7)**	WB Rule of Law **(7)**
United States	-2.7	-1.8	108	-2.2	103	-0.4	25	19	32	1.7	2.4	7.2	7.5	6.2	12.6	78	79	59	-0.6	-1.4	-1.6
Canada	-1.7	0.2	87	-3.5	72	-3.6	16	13	24	1.5	1.5	7.3	3.8	0.2	3.8	94	55	108	-1.1	-1.9	-1.8
Japan	-8.7	-1.2	245	0.9	44	-19.5	59	49	9	1.9	0.1	3.8	8.6	-1.8	63.0	66	144	46	-0.9	-1.6	-1.3
Australia	-0.6	-1.2	32	-2.3	81	-3.0	4	3	72	2.6	2.2	5.8	2.5	3.0	18.4	109	60	122	-1.0	-2.0	-1.7
Korea	1.7	-2.1	50	5.6	33	5.4	1	3	14	2.6	1.6	2.9	0.2	-1.2	0.0	85	74	130	-0.2	-0.5	-1.0
Norway	-8.6	-1.7	30	11.6	143	-4.5	-8	4	39	0.7	2.0	3.4	-1.1	1.9	10.6	86	128	111	-1.3	-2.2	-1.9
Sweden	-1.9	-1.5	42	5.2	184	1.9	4	3	47	0.7	-0.1	7.9	3.1	-0.1	17.5	86	89	299	-1.2	-2.3	-1.9
Denmark	-1.6	0.5	47	6.0	194	-0.2	10	7	46	0.2	1.3	5.9	-7.3	2.9	14.7	140	90	387	-0.9	-2.4	-1.9
Finland	-0.7	-1.2	47	6.0	194	1.0	8	6	91	0.2	1.3	5.9	2.2	-6.7	25.6	67	94	154	-1.4	-2.2	-1.9
UK	-1.9	-0.3	90	-3.0	381	3.1	12	6	32	1.4	2.7	7.8	-7.7	1.4	12.5	92	103	106	-0.4	-1.6	-1.7
Austria	0.3	0.1	74	2.8	204	1.5	8	6	83	0.4	2.0	4.9	-5.1	1.3	21.0	55	89	155	-1.3	-1.3	-1.8
France	0.0	-0.1	93	-1.6	206	-0.6	18	13	64	0.2	1.1	11.2	-1.4	-3.9	23.5	55	156	142	-0.6	-1.4	-1.4
Germany	2.7	0.0	80	6.5	166	0.3	8	8	61	0.6	1.7	6.9	-6.2	4.8	19.1	57	90	68	-0.8	-1.8	-1.6
Netherlands	-0.1	0.0	85	11.3	316	1.6	12	9	54	-1.1	3.2	8.8	-0.7	-7.3	16.0	126	93	117	-1.2	-2.1	-1.8
Belgium	1.0	1.0	100	-3.0	237	0.9	18	16	57	0.2	1.4	9.0	-0.3	-1.7	19.0	57	199	74	-0.9	-1.6	-1.4
Italy	3.7	2.4	133	0.1	122	0.6	28	25	35	-1.9	1.4	12.2	-1.6	-6.4	15.5	45	116	91	-0.5	0.0	-0.4
Spain	1.4	2.2	85	0.6	176	0.8	18	14	29	-1.3	0.8	26.0	-14.8	-8.8	19.2	79	173	139	0.0	-1.0	-1.0
Ireland	-1.3	0.4	123	4.9	1032	-0.9	13	6	64	-0.3	1.2	13.3	-18.7	2.1	29.3	105	293	139	-0.9	-1.4	-1.7
Portugal	1.1	1.2	129	1.0	238	-0.2	23	18	60	-1.6	0.6	17.7	-9.2	-3.7	17.9	91	149	157	-0.7	-0.9	-1.0
Greece	4.3	1.0	176	-1.0	223	-1.8	20	15	68	-3.9	-0.9	27.9	8.4	-10.4	37.2	66	74	118	0.2	0.3	-0.4

*Vulnerability Indicators: (1) % GDP (2) Deviation from 4 years average (3) % of total debt (4) % year on year (5) % of Total Labor Force (6) Financial System Credit to Deposit (7) Index by World Bank Governance Indicators

Section 3

Vulnerability Indicators: Emerging Economies

Vulnerability Indicators* 2013: Emerging Countries

Source: BBVA Research, Haver, BIS, IMF and World Bank

	Fiscal Sustainability			External Sustainability			Liquidity Management			Macroeconomic Performance			Credit and housing			Private debt			Institutional		
	Structural Primary Balance (1)	Interest rate GDP growth differential 2013-17	Gross Public Debt (1)	Current Account Balance (1)	External Debt (1)	RER Appreciation (2)	Gross Financial Needs (1)	Reserves to Short Term External Debt (3)	Debt Held by non Residents (3)	GDP Growth (4)	Consumer prices (4)	Unemployment Rate (5)	Private Credit to GDP Growth (4)	Real Housing Prices Growth (4)	Equity Markets Growth (4)	Household Debt (1)	NF Corporate Debt (1)	Financial liquidity (6)	WB Political Stability (7)	WB Control Corruption (7)	WB Rule of Law (7)
Bulgaria	0.2	-0.1	17	1.5	91	0.0	4	1.4	47	0.6	-0.4	11.2	-2.2	-10.1	40.8	24	96	101	-0.3	0.2	0.1
Czech Rep	-0.7	-0.2	48	-1.7	53	-1.9	11	8	33	-1.0	2.7	7.8	1.2	0.0	0.4	33	50	84	-1.0	-0.2	-1.0
Croatia	-2.8	1.7	58	-4.0	105	-1.6	11	2.3	34	-0.7	2.4	20.0	-2.8	-7.3	5.6	38	37	88	-0.6	0.0	-0.2
Hungary	1.9	1.3	80	1.9	148	-1.4	21	1.7	68	0.4	2.6	10.1	-0.3	0.6	0.4	30	89	150	-0.7	-0.3	-0.6
Poland	-0.3	-0.1	58	-1.4	69	-0.6	12	1.5	53	1.2	1.3	13.7	0.4	-6.2	15.0	36	81	105	-1.0	-0.6	-0.7
Romania	0.7	-0.8	38	-0.4	74	0.5	12	1.5	48	1.9	4.8	4.8	-3.4	-2.4	0.3	21	53	112	-0.1	0.3	0.0
Russia	0.2	-1.2	12	1.6	31	2.2	2	5.2	19	1.4	7.2	5.6	6.0	0.7	0.3	14	31	121	0.8	1.0	0.8
Turkey	1.8	2.0	37	-6.8	42	0.6	9	1.0	35	3.7	7.5	9.0	10.4	4.7	12.2	15	34	118	1.2	-0.2	0.0
Argentina	-1.5	-5.5	44	-0.5	32	-11.3	9	1.3	32	4.5	17.2	7.0	1.6	1.0	95.1	8	--	76	-0.1	0.5	0.7
Brazil	3.3	2.4	59	-3.6	21	-9.4	17	12.1	18	2.6	6.5	5.5	4.2	5.4	-11.6	16	37	124	-0.1	0.1	0.1
Chile	-1.0	-2.0	12	-4.0	44	-6.3	1	1.0	16	4.2	2.4	6.0	2.6	4.7	-9.6	29	48	179	-0.3	-1.6	-1.4
Colombia	0.1	-1.1	34	-3.1	21	-2.5	4	3.4	28	3.6	2.9	10.3	3.3	9.3	0.0	17	24	186	1.4	0.4	0.4
Mexico	-0.5	-0.2	41	-2.0	30	0.7	11	2.9	33	1.2	3.5	5.1	2.8	0.2	3.1	15	28	77	0.7	0.4	0.6
Peru	0.9	-2.8	17	-4.9	27	-8.7	2	8.3	65	5.2	3.1	6.0	2.3	10.8	-26.6	11	21	89	0.9	0.4	0.6
China	-0.3	-7.7	15	2.4	7	9.4	6	6.2	…	7.7	2.8	4.1	9.2	8.7	-1.9	31	86	158	0.5	0.5	0.5
India	-4.3	-4.5	53	-4.2	19	-11.1	13	3.0	7	4.2	10.0	11.8	-1.7	-2.7	3.3	9	44	79	1.2	0.6	0.1
Indonesia	-1.4	-5.2	22	-3.5	30	-11.5	4	2.0	55	5.6	7.0	5.9	1.1	2.0	1.3	57	13	93	0.6	0.7	0.6
Malaysia	-2.1	-2.4	56	4.3	34	-0.3	10	4.4	29	4.6	2.1	3.2	3.8	3.2	8.1	94	--	89	0.0	-0.3	-0.5
Philippines	0.5	-1.9	52	2.8	29	4.2	8	10.9	39	7.0	3.0	8.7	0.2	7.4	15.8	2	28	61	1.2	0.6	0.5
Thailand	-2.5	-4.8	38	-0.9	39	2.6	8	2.5	10	4.2	2.5	1.2	-2.6	5.2	6.5	27	24	104	1.2	0.3	0.2

*Vulnerability Indicators: (1) % GDP (2) Deviation from 4 years average (3) % of total debt (4) % year on year (5) % of Total Labor Force (6) Financial System Credit to Deposit (7) Index by World Bank Governance Indicators

Annex

Methodology: Indicators and Maps

- Financial Stress Map: It stress levels of according to the normalized time series movements. Higher positive standard units (1.5 or higher) stands for high levels of stress (dark blue) and lower standard deviations (-1.5 or below) stands for lower level of market stress (lighter colors)
- Sovereign Rating Index: An index that translates the three important rating agencies ratings letters codes (Moody´s, Standard & Poor´s and Fitch) to numerical positions from 20 (AAA) to default (0) . The index shows the average of the three rescaled numerical ratings
- Sovereign CD Swaps Map: It shows a colour map with 6 different ranges of CD Swaps quotes (darker >500, 300 to 500, 200 to 300, 100 to 200, 50 to 100 and the lighter below 50 bps)
- Downgrade Pressure Map: The map shows the difference of the current ratings index (numerically scaled from default (0) to AAA (20)) and the implicit ratings according to the Credit Default Swaps. We calculate implicit probabilities of default (PDs) from the observed CDS and the estimated equilibrium spread. For the computation of these PDs we follow a standard methodology as the described in Chan-Lau (2006) and we assume a constant Loss Given Default of 0.6 (Recovery Rate equal to 0.4) for all the countries in the sample. We use the resulting PDs in a cluster analysis to classify each country at every point in time in one of 20 different categories (ratings) to emulate the same 20 categories used by the Rating Agencies. The map and the graph plot the difference between the actual sovereign rating index and the CDS-implied sovereign rating, in notches. Higher positives differences account for Downgrade potential pressures and negative differences account for Upgrade potential. We consider the +-3 notches area as the Neutral one
- Vulnerability Radars & Risk Thresholds Map:
  - A Vulnerability Radar shows a static and comparative vulnerability for different countries. For this we assigned several dimensions of vulnerabilities each of them represented by three vulnerability indicators. The dimensions included are: Macroeconomics, Fiscal, Liquidity, External, Excess Credit and Assets, Private Balance Sheets and Institutional. Once the indicators are compiled we reorder the countries in percentiles from 0 (lower ratio among the countries) to 1 (maximum vulnerabilities) relative to its group (Developed Economies or Emerging Markets). Furthermore Inner positions (near 0) in the radar shows lower vulnerability meanwhile outer positions (near 1) stands for higher vulnerability. Besides we compare the positions of the country with risk thresholds in red whose values have been computed according to our own analysis or empirical literature
  - The Distance to Risk Map: Shows in different colours a summary table of vulnerability radars. Darker colours stand for indicators above risk thresholds (developed or emerging depending the country). Lighter colours reflect safe values in the sense of a high distance to the risk thresholds. Dimensions are computed as the geometric average of the three indicators included in each of the dimensions

Annex
Methodology: Indicators and Maps

Risk Thresholds Table

Vulnerability Dimensions	Risk Thresholds Developed Economies	Risk Thresholds Emerging Economies	Risk Direction	Research
Macroeconomics				
GDP	1.5	3.0	Lower	BBVA Research
Inflation	4.0	10.0	Higher	BBVA Research
Unemployment	10.0	10.0	Higher	BBVA Research
Fiscal Vulnerability				
Ciclically Adjusted Deficit ("Strutural Deficit")	-4.2	-0.5	Lower	Baldacci et Al (2011). Assesing Fiscal Stress. IMF WP 11/100
Expected Interest rate GDP growth diferential 5 years ahead	3.6	1.1	Higher	Baldacci et Al (2011). Assesing Fiscal Stress. IMF WP 11/100
Gross Public Debt	73.0	43.0	Higher	Baldacci et Al (2011). Assesing Fiscal Stress. IMF WP 11/100
Liquidity Problems				
Gross Financial Needs	17.0	21.0	Higher	Baldacci et Al (2011). Assesing Fiscal Stress. IMF WP 11/100
Debt Held by Non Residents	84.0	40.0	Higher	Baldacci et Al (2011). Assesing Fiscal Stress. IMF WP 11/101
Short Term Debt Pressure				
Publi Short Term Debt as % of Total Publi Debt (Developed)	9.1		Higher	Baldacci et Al (2011). Assesing Fiscal Stress. IMF WP 11/100
Reserves to Short term debt (Emerging)		0.6	Lower	Baldacci et Al (2011). Assesing Fiscal Stress. IMF WP 11/100
External Vulnerability				
Current Account Balance (% GDP)	4.0	6.0	Lower	BBVA Research
External Debt (% GDP)	200.0	60.0	Higher	BBVA Research
Real Exchange Rate (Deviation from 4 yr average)	5.0	10.0	Higher	EU Commission (2012) and BBVA Research
Private Balance Sheets				
Household Debt (% GDP)	84.0	84.0	Higher	Chechetti et al (2011). "The real effects of debt". BIS Working Paper 352 & EU Comission (2012)
Non Financial Corporate Debt (% GDP)	90.0	90.0	Higher	Chechetti et al (2011). "The real effects of debt". BIS Working Paper 352 & EU Comission (2013)
Financial liquidity (Credit/Deposits)	130.0	130.0	Higher	EU Commission (2012) and BBVA Research
Excess Credit and Assets				
Private Credit to GDP (annual Change)	8.0	8.0	Higher	IMF Global Financial Stability Report
Real Housing Prices growth (% yoy)	8.0	8.0	Higher	IMF Global Financial Stability Report
Equity growth (% yoy)	20.0	20.0	Higher	IMF Global Financial Stability Report
Institutions				
Political Stability	0.2 (9th percentil)	-1.0 (8th percentil)	Lower	World Bank Governance Indicators
Control of Corruption	0.6 (9th percentil)	-0.7 (8th percentil)	Lower	World Bank Governance Indicators
Rule of Law	0.6 (8th percentil)	-0.6 (8 th percentil)	Lower	World Bank Governance Indicators

Annex

Methodology: Models and BBVA country risk

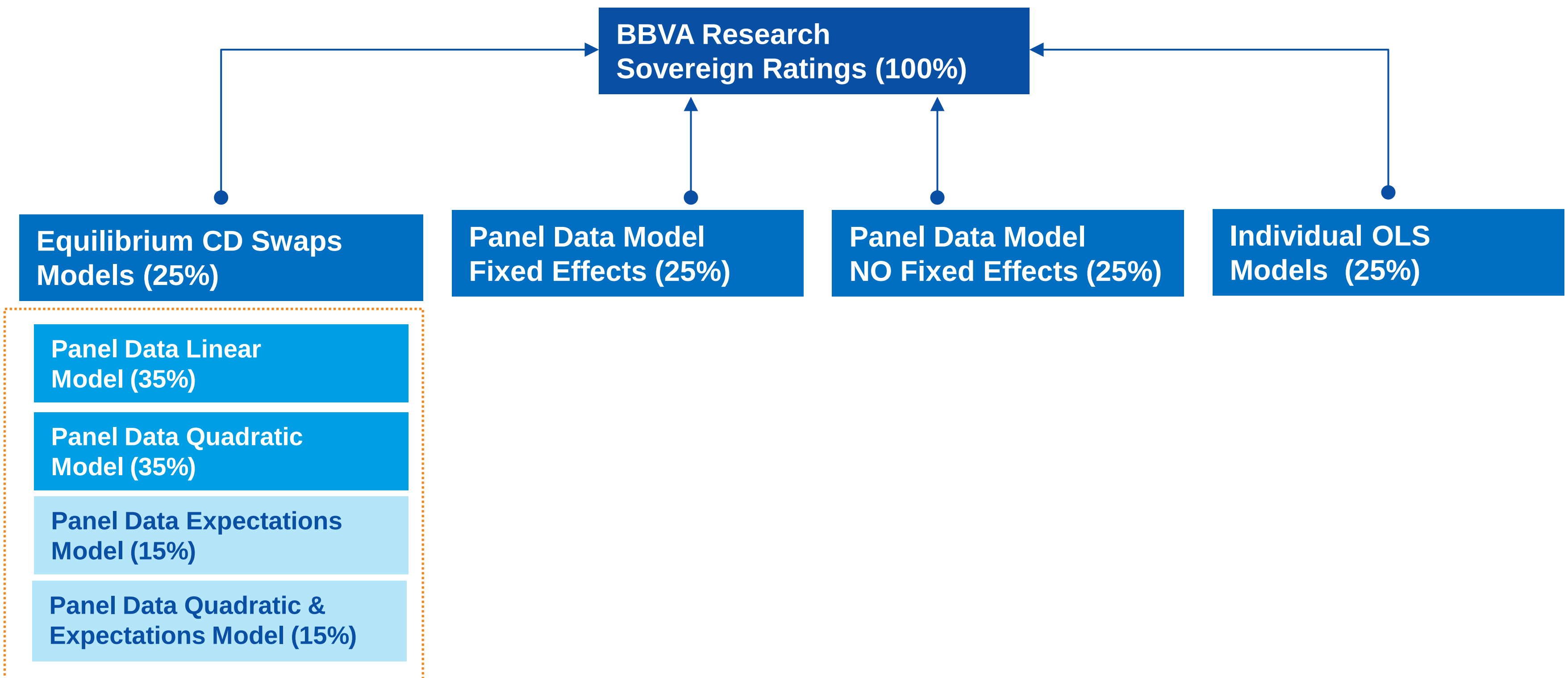
- BBVA Research Sovereign Ratings Methodology: We compute our sovereigns ratings by averaging four alternatives sovereign rating models developed at BBVA research:
  - Credit Default Swaps Equilibrium Panel Data Models: This model estimate actual and forecasts equilibrium levels of CD Swaps for 40 developed and emerging markets. The long run equilibrium CD Swaps are the result of four alternative panel data models. The average of these equilibrium values are finally are finally converted to a 20 scale sovereign rating scale. The CD Swaps equilibrium are calculated by a weighting average of the four CD Swaps equilibrium model estimations (30% for the linear and quadratic models and 15% for each expectations model to correct for expectations uncertainty). The weighted average is rounded by 0.5 standard deviation confidence bands. The models are the following
    - Linear Model (35% weight): Panel Data Model with fixed effects including Global Risk Aversion, GDP growth, Inflation, Public Debt and institutional index for developed economies and adding External debt and Reserves to Imports for Emerging Markets
    - Quadratic Model (35% weight): It is similar to the Linear Panel Data Model but including a quadratic term for public (Developed and emerging) and external debt (Emerging)
    - Expectations Model (15% weight): It is similar to the linear model but public and external debt account for one year expected values
    - Quadratic Expectations Model (15% weight): Similar to the expectations model but including quadratic terms of public debt and external debt expectations
  - Sovereign Rating Panel Data Ordered Probit with Fixed Effects Model: The model estimates a sovereign rating index (a 20 numerical scale index of the three sovereign rating agencies) through ordered probit panel data techniques. This model takes into account idiosyncratic fundamental stock and flows sustainability ratios allowing for fixed effects , thus including idiosyncratic country specific effects
  - Sovereign Rating Panel Data Ordered Probit without Fixed Effects Model: The model estimates a sovereign rating index (a 20 numerical scale index of the three sovereign rating agencies) through ordered probit panel data techniques. This model takes into account idiosyncratic fundamental stock and flows sustainability but fixed effects are not included, thus all countries are treated symmetrically without including the country specific long run fixed effects
  - Sovereign Rating Individual OLS models: These models estimates the sovereign rating index (a 20 numerical scale index of the three sovereign rating agencies) individually. Furthermore , parameters for the different vulnerability indicators are estimated taken into account the own history of the country independent of the rest of the countries

Annex

Methodology: Models and BBVA country risk

BBVA Research Sovereign Ratings Methodology Diagram

Source: BBVA Research



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