

# Country Risk Quarterly Report

BBVA Research Cross-Country Emerging Markets Unit September 2014

## Summary

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Financial Markets & Global Risk Aversion	<ul> <li>Global financial appetite remained in the Financial Markets during a second consecutive quarter supported by the stand by in US monetary policy and the soft stance by the ECB. Financial tensions have continued declining, specially in emerging markets, and sovereign risk premia are stable at very low historical levels in both developed and emerging markets (EM).</li> <li>The Ukrainian-Russian conflict, the advance of the IS in Iraq &amp; Syria and the recent Argentinian sovereign debt problems have not triggered regional or global spillovers so far. In fact, Global Risk Aversion (VIX) has remained stable during last quarter. However, Geopolitical risks coming from the Middle East are still on the rise in Iraq and neighbor countries.</li> <li>Net capital flows to EM moderated during the last quarter, especially in EM Europe.</li> </ul>
Sovereign Markets & Ratings Update	<ul> <li>Sovereign risk premia in developed markets have remained at similar levels of our previous Quarterly Report, with some minor volatility in some peripheral countries (Greece and Portugal). There were only some exceptions of deteriorating spreads due to country specific events (Russia and Argentina).</li> <li>The positive credit rating cycle in the EU periphery has had one of its more positive quarters with the upgrades of Portugal (second quarter in a row) and Greece by Moody's, and of Ireland by both S&amp;P and Fitch.</li> <li>The rating cycles across emerging regions continues to be mixed: Argentina suffered a strong downgrade by all the rating agencies, meanwhile Peru and Colombia were upgraded by Moody's (two and one notches). Bulgaria and South Africa were downgraded by S&amp;P and Croatia by Fitch.</li> </ul>
Our own country risk assessment	<ul> <li>Developed Markets continued to be supported by Central Banks but with an increasing divergence between the US and European cycles and monetary policy. The sovereign rating cycle has continued to improve in the EU periphery despite low growth and disinflation, supported by monetary policy.</li> <li>Emerging Markets evolution will mainly depend on the US monetary policy and capital flows will continue to dance around news coming from the US economy and the Federal Reserve. The ratings' divergence have started to accelerate with Emerging Europe being the riskiest region</li> <li>Geopolitical risk has clearly increased with the Ukraine-Russia conflict and the advance of ISIS in Iraq and Syria. So far the conflict pressure is localized but the risk of spill overs is important. Social unrest pressures have diminished in Europe while increasing in Eastern Europe, North Africa and the Middle East.</li> </ul>



## Index

- **1. International Financial Markets , Global Risk Aversion and Capital Flows**
- 2. Sovereign Markets & Ratings Update
- 3. Macroeconomic Vulnerability and In-house assessment of country risk on a Regional basis
- 4. Special Topic:
  - Social Unrest and Geopolitics: Tracking Protest and Conflicts intensity
- Annex
  - Methodological appendix

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## Financial Markets Stress

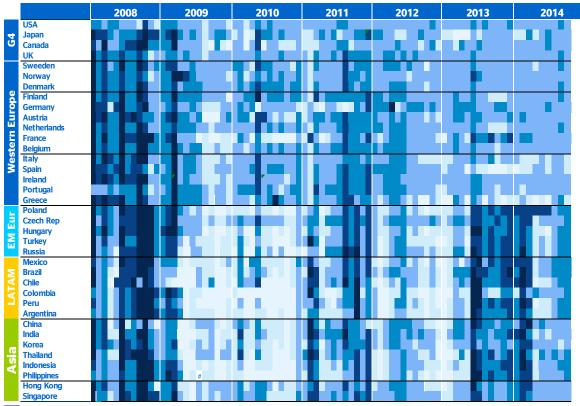
BBVA Research	Financial	Stress	Мар		Changes	
CDS Sovereign Equity (volatility) CDS Banks Credit (corporates) Interest Rates Exchange Rates	2008 2	2009 2	010 2011	2012 2013 20		Continuous decline in Financial Tensions in both USA and Europe of more than a year long, which persisted at a lower pace during the last quarter (June to August).
Ted Spread Financial Tension Index CDS Sovereign Equity (volatility) CDS Banks Credit (corporates Interest Rates Exchange Rates Ted Spread		1	I.			<ul> <li>Financial tensions are at minimum levels.</li> <li>Corporates and banks continue to be the most benefited.</li> </ul>
Financial Tension Index     Spread     Financial Tension Index     USA Financial Tension Index     Europe Financial Tension Index     Czech Rep     Poland     Hungary     Russia     Turkey     EM Latam Financial Tension Index     Mexico     Brazil     Chile     Colombia     Perú	2008 2	2009 2		2012 2013 20		Financial tensions in EM Europe moderated but Ukrainian conflict is clearly impacting Russia. The reduction on political uncertainty benefited Turkey. Latam's financial pressures continue to relax in most of the countries of the region. All the countries have enjoyed a decline during the whole second quarter.
EM Asia Financia Tension Index China India Indonesia Malaysia Philippines Color scale for Index in levels	No Data Very Low Tension (<1 Low Tension (1.0 to Neutral Tension (0.5 High Tension (0.5 to Very High Tension (>	-0.5 sd) to 0.5) 1 sd)			< -2 (2)(-1) (1) · (0.5) (0.5) · (0.2) (0.2) · 0.2	Financial tensions are again decreasing all over EM Asia, although the index is more volatile in India. Philippines outperforms.



## Section 1 Capital Flows Update

### **BBVA Country Portfolio Flows Map**

(Country Flows over total Assets ) Source: BBVA Research



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 %)

- Previous quarter strong inflows to EM faded in during Q3 in LatAm and Emerging Europe due to weaker bond portfolio inflows. Meanwhile Asian inflows remained stable
- EM's Net flows (BoP) are <u>estimated</u> to have contracted by US\$60Bn, overly driven by social and geopolitical concerns (Russia, Thailand, etc) and growth underperformance.
- Divergence on growth patters among DMs (Jackson Hole): fears of an earlier Fed's normalization while deflation worries in Europe pushed the ECB to reduce official rate and commit to further monetary accommodation (MBS and Covered Bonds purchase as from October).
- Global factors will dampen reversal pressures, soothing down the pace of portfolio flow contraction among EMs during Q4.



# Sovereign Markets Update

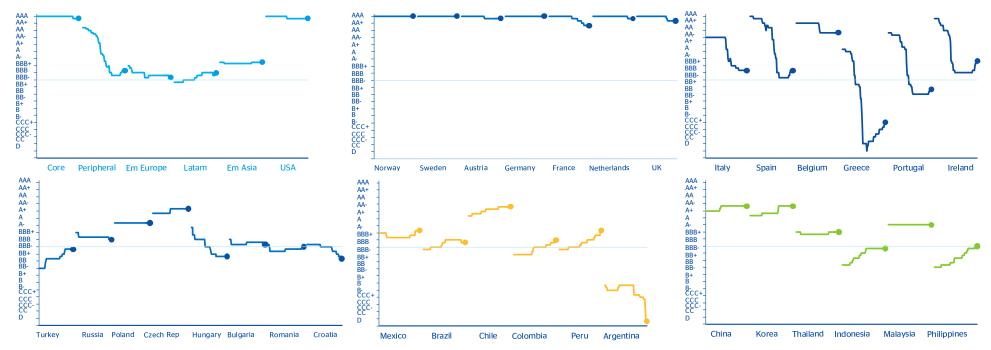
ce: Datastream a								Changes (last 6 months m/m)	)	
USA UK Norway Sweden Austria	2008	2009	2010	2011	2012	2013	2014		فرم	CDS Spreads in the most advanced market remained unchanged during the last quarter a minimum levels.
Germany France Netherlands Italy Spain Belgium									٢	<b>European periphery's CDS spreads continue</b> <b>decreasing</b> in the last quarter, although it is st volatile in Greece and Portugal.
Greece Portugal Ireland Turkey Russia Poland Czech Republic Hungary								1	•	<b>EM Europe's CDS remained basically unchange</b> <b>during the second quarter</b> , including Turkey's CD spread. Russia's CDS was hurt by geopolitical event related to the Ukrainian conflict.
Bulgaria Romania Croatia Mexico Brazil Chile Colombia Peru Argentina								Ē	گر م	Latam sovereign CDS spreads are also stable at the same levels of previous quarter. Argentina's CD has blown up to values associated to a defaure event (over 10000 bps).
China Korea Thailand Indonesia Malaysia Philippines				-	÷		e.	ΗF		Asian sovereigns spreads remained stable of decreased. Thailand's CDS is returning to leve previous to the military coup.
0 50- 100- 100 200	200- 300- 300 400		>600			< (-100)- (-100) (-50)	(-50) - (-25 (-25) (-5)	) - (-5) - 5 5-25 25-50	50- 100	>100

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# Sovereign Credit Ratings Update

### Sovereign Rating Index 2008-2014



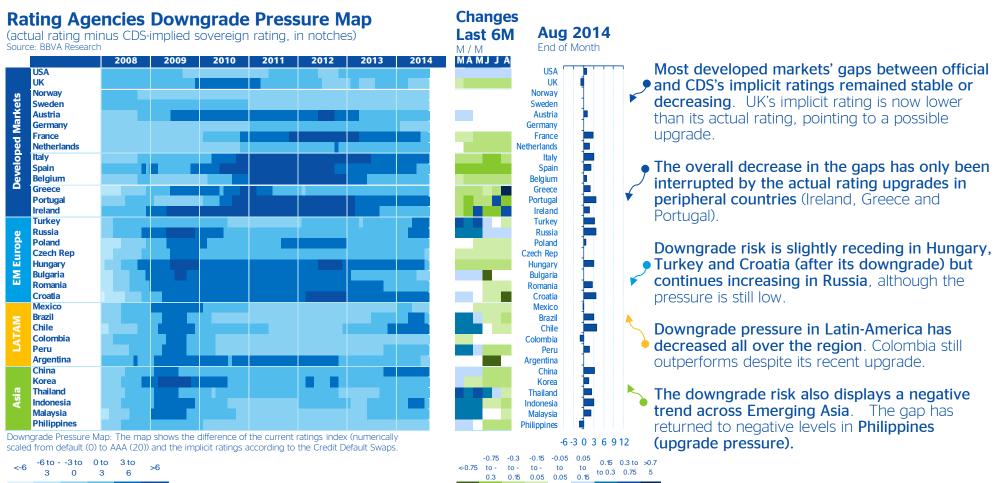


Sovereign Rating Index: An index that translates the three important rating agencies ratings letters codes (Moody's, Standard & Poor's and Fitch) to numerical positions from 20 (AAA) to default (0). The index shows the average of the three rescaled numerical ratings.

- Developed Economies: New positive quarter for peripheral countries as Moody's upgraded Portugal (second quarter in a row) and Greece, meanwhile S&P and Fitch both upgraded Ireland by one notch.
- Emerging Markets: The outlook in Emerging Markets is still quite mixed. In Latam, Argentina suffered a strong downgrade by all the rating agencies, meanwhile Peru and Colombia were upgraded by Moody's (two and one notches). Bulgaria and South Africa were downgraded by S&P and Croatia by Fitch.

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# Sovereign downgrade Pressures Map

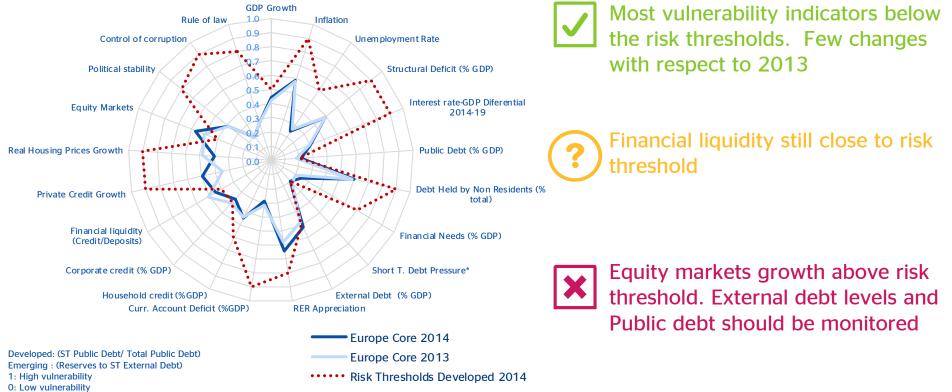




# Regional Risk Update: Core Europe

### **Europe Core Countries: Vulnerability Radar 2014**

(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



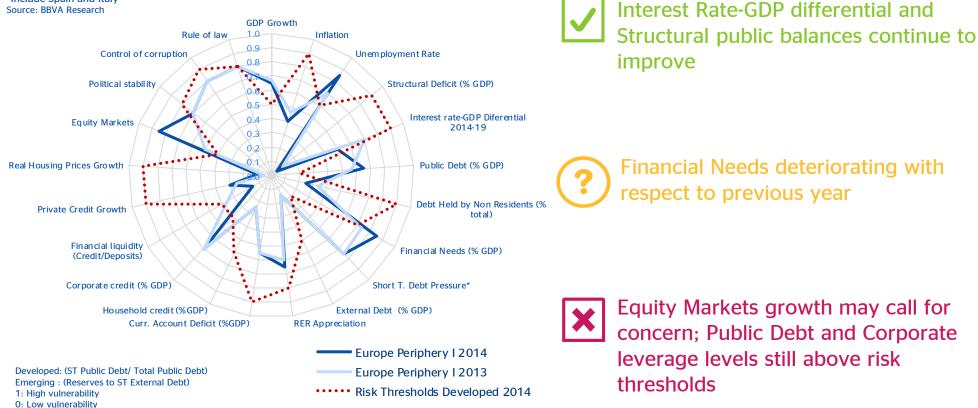
**Vulnerability Radar:** Shows a static and comparative vulnerability for different countries. For this we assigned several solvency, liquidity and macro variables and we reorder in percentiles from 0 (lower ratio among the countries to 1 maximum vulnerabilities.) Furthermore Inner positions in the radar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



# Regional Risk Update: Europe Periphery I

### **Europe Periphery I: Vulnerability Radar 2014**

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



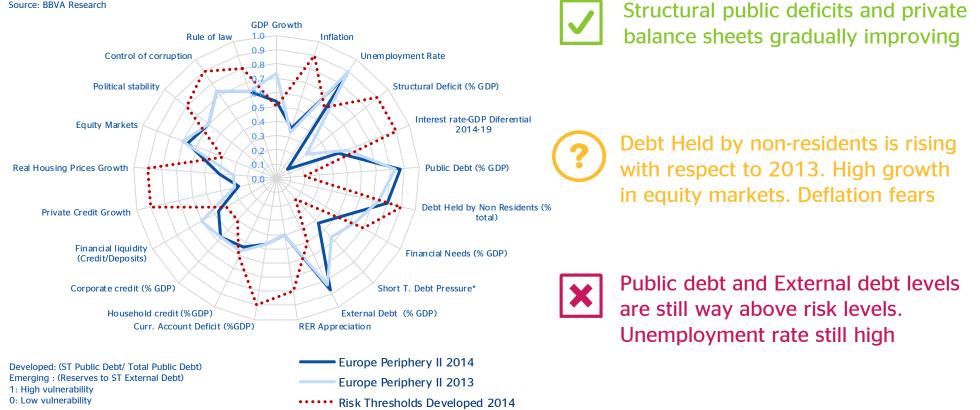
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# Regional Risk Update: Europe Periphery II

### **Europe Periphery II: Vulnerability Radar 2014**

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



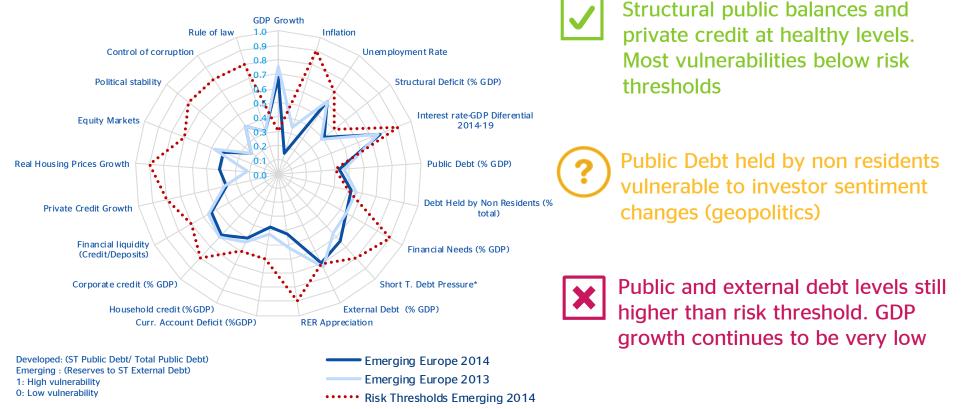
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# Regional Risk Update: Emerging Europe

### **Emerging Europe: Vulnerability Radar 2014**

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



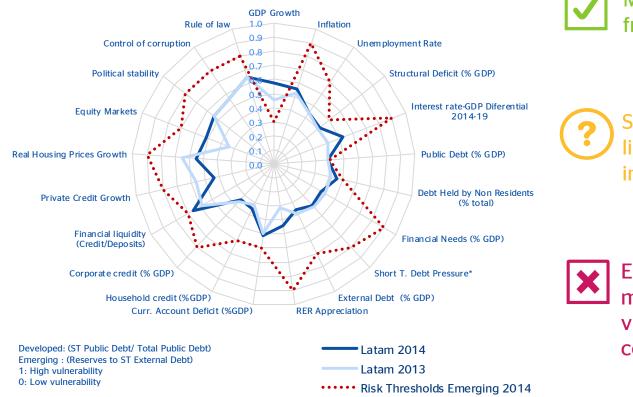
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## Section 3 Regional Risk Update: Latam

### Latam: Vulnerability Radar 2014

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





Most vulnerability indicators are far from risk thresholds

Slight deterioration in financial liquidity (credit/deposits) and interest rate-GDP differential

Economic activity is slowing down in most countries. Current Account vulnerability relatively high in some countries

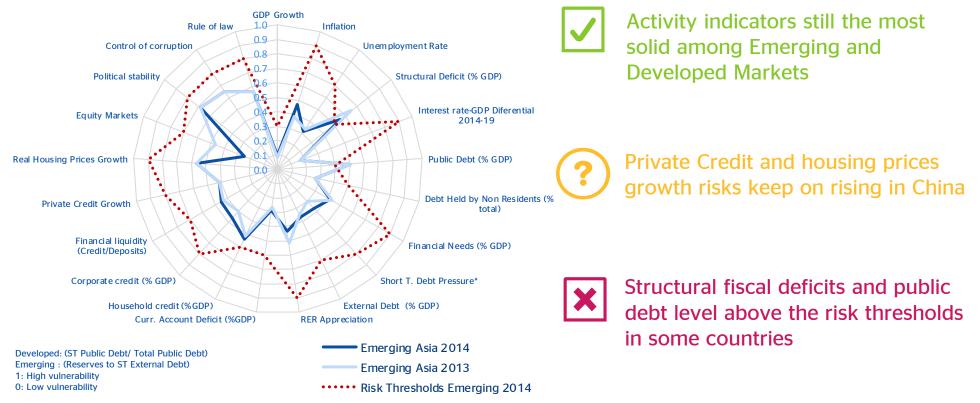
Vulnerability Radar: Shows a static and comparative vulnerability for different countries. For this we assigned several solvency, liquidity and macro variables and we reorder in percentiles from 0 (lower ratio among the countries to 1 maximum vulnerabilities.) Furthermore Inner positions in the radar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



# Regional Risk Update: Asia

### **Emerging Asia: Vulnerability Radar 2014**

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



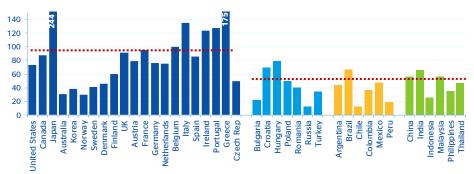
**Vulnerability Radar:** Shows a static and comparative vulnerability for different countries. For this we assigned several solvency, liquidity and macro variables and we reorder in percentiles from 0 (lower ratio among the countries to 1 maximum vulnerabilities.) Furthermore Inner positions in the radar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



## Section 3 Public and Private Debt Chart Gallery

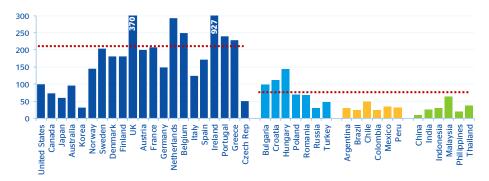
#### **Gross Public Debt 2014**





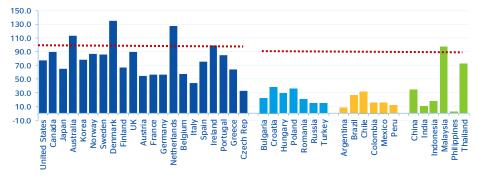
#### External Debt 2014

(% GDP) Source: BBVA Research and IMF



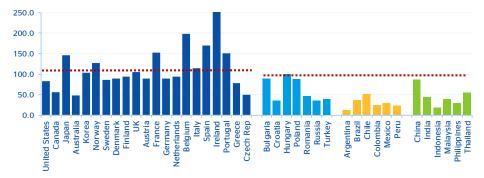
#### Household Debt 2014





#### Corporate Sector Debt 2014

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

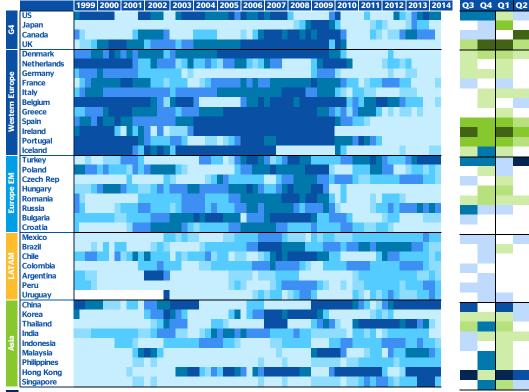




### Section 3 Private Credit Pulse

### Private credit colour map (1999-2014 Q2)

(yearly change of private credit-to-GDP ratio (Y/Y) Source: BBVA Research and Haver



Booming: Credit/GDP growth is higher than 5% Excess Credit Growth: Credit/GDP growth between 3%-5% High Growth: Credit/GDP growth between 2%-3% Mild Growth: Credit/GDP growth between 1%-2% Stagnant: Credit/GDP is declining betwen 0%-1% De-leveraging: Credit/GDP growth declining ... Non Available Q/Q Growth Last four quarters up until Q2-2014 **De-leveraging continues across most developed economies, although its pace is stabilizing in most of the economies** (stagnant or slightly decreasing).

**Deleveraging is stronger in UK and Ireland**. On the other hand, private leverage is still growing in the US although is losing steam in the last two quarters.

 In EM Europe, credit growth has accelerated in Turkey. Meanwhile, the growth of private leverage is stagnant in the rest of the countries.

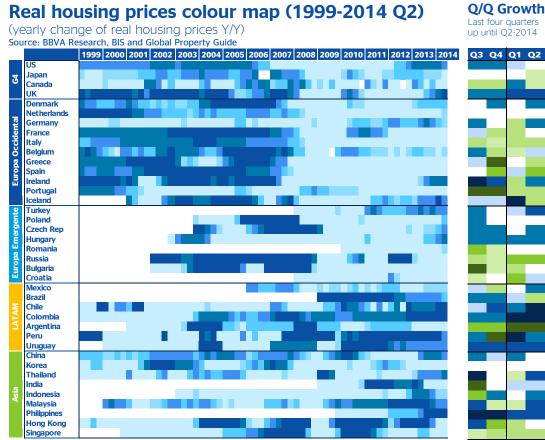
Private credit growth continues to be sluggish in Latin America. In most of the countries leverage has not grown in the last two quarters, with the exception of Mexico, where it has recovered in the second quarter.

In China and Hong Kong credit ratio growth has slowed down in the second quarter although is still booming in annual terms. There are no signs of excess credit growth in the rest of the countries.

Q/Q growth > 5% Q/Q growth between 3 and 5% Q/Q growth between 1.5% and 3% Q/Q growth between 0.5% and 1.5% Q/Q growth between -0.5% and 0.5% Q/Q growth between -0.5% and - 1.5% Q/Q growth between -1.5% and -3% Q/Q growth between -3% and -5% Q/Q growth < -5%



# Real Housing Prices Pulse



Booming: Real House prices growth higher than 8% Excess Growth: Real House Prices Growth between 5% and 8% High Growth: Real House Prices growth between 3%-5% Mild Growth: Real House prices growth between 1%-3% Stagnant: Real House Prices are declining Non Available Data US real housing prices growth has reduced its pace in the last quarter. Meanwhile, real growth in UK is accelerating.

**Europe's correction in prices continues** with some positive growth in the Germany, Denmark and Ireland.

Housing prices' growth has accelerated in Turkey, Hungary and Czech Republic in the second quarter, meanwhile prices are stagnant or declining in the rest of the countries.

In Latam, real housing prices are booming again in Colombia and Chile, and are moderating its growth rate in Peru.

• Housing prices growth is finally slowing down in China. Prices are booming in Hong Kong and growth is accelerating again in Philippines. Prices have been decreasing in Singapore for over a year.

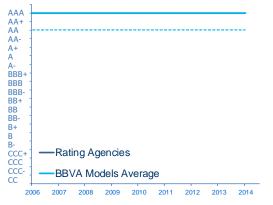
Q/Q growth > 3.5% Q/Q growth between 2% and 3.5% Q/Q growth between 1% and 2% Q/Q growth between 0.5% and 1% Q/Q growth between -0.5% and 0.5% Q/Q growth between -0.5% and - 1% Q/Q growth between -1% and -2% Q/Q growth between -2% and -3.5% Q/Q growth < -3.5%



# Regional Risk Update: Western Europe

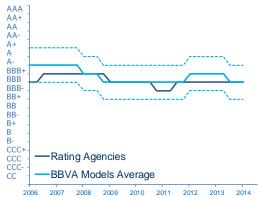
### **Europe Core: Sovereign Rating**

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



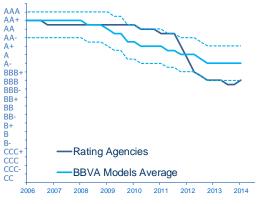
#### **EM Europe: Sovereign Rating**

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



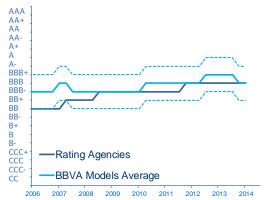
#### **Europe Periphery I: Sovereign Rating**

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



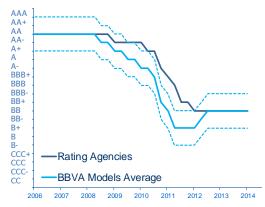
#### Latam: Sovereign Rating

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



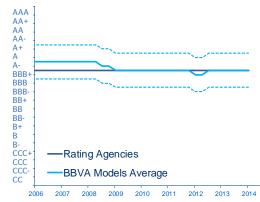
### **Europe Periphery II: Sovereign Rating**

(Rating agencies and BBVA scores + 1 std dev) Source: Standard & Poors, Moody's, Fitch and BBVA Research



#### **Emerging Asia: Sovereign Rating**

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

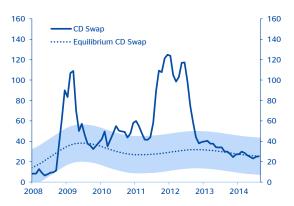




# Regional Risk: CD Swaps Update

### Europe Core: 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)



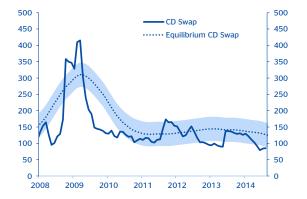
#### Europe Periphery I: CD Swap 5 year

(equilibrium: average of 4 alternative models + 0.5 Standard deviation)



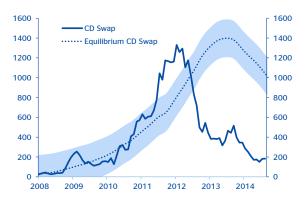
#### LATAM: CD Swap 5 year

(equilibrium: average of 4 alternative models + 0.5 Standard deviation)



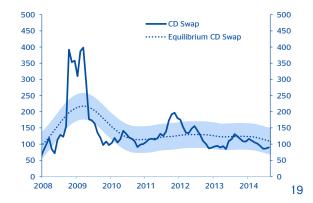
#### **Europe Periphery II: CD Swap 5 year**

(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\* 2014: 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 <b>(1)</b>	Interest rate GDP growth differential 2014-19	Gross Public Debt <b>(1)</b>	Current Account Balance (1)	External Debt <b>(1)</b>	RER Appreciati on <b>(2)</b>	Gross Financial Needs <b>(1)</b>	Short Term Public Debt <b>(3)</b>	Debt Held by non Residents (3)	GDP Growth (4)	Consumer	Unemploym ent Rate (5)	Credit to GDP	Real Housing Prices Growth <b>(4)</b>	Equity Markets Growth <b>(4)</b>	Househol d Debt (1)	NF Corporate Debt <b>(1)</b>	Financial liquidity <b>(6)</b>	WB Political Stability <b>(7)</b>	WB Control Corruption (7)	WB Rule of Law <b>(7)</b>
United States	-1.9	-1.3	73	-2.6	99	1.4	24	17	32	2.0	1.9	6.3	6.1	3.6	12.9	78	83	216	-0.6	-1.4	-1.6
Canada	-1.7	-0.4	87	-3.5	72	-7.9	16	13	22	1.5	1.5	7.3	-3.9	-0.4	24.9	89	55	142	-1.1	-1.9	-1.8
Japan	-6.1	-1.1	244	-0.1	60	-17.5	58	50	8	0.9	3.6	3.6	-3.2	-1.7	10.9	65	146	80	-0.9	-1.6	-1.3
Australia	-2.3	0.2	31	-3.4	95	-4.1	5	2	46	3.1	3.0	5.9	2.3	3.9	12.7	113	49	122	-1.0	-2.0	-1.7
Korea	0.6	-1.7	38	6.4	30	8.8	3	4	13	3.5	1.6	3.7	-1.0	-0.2	7.5	78	104	194	-0.2	-0.5	-1.0
Norway	-8.6	-1.5	30	12.2	144	-3.4	-7	4	46	1.4	2.1	3.2	-8.5	1.0	31.5	86	126	335	-1.3	-2.2	-1.9
Sweden	-1.1	-1.7	41	5.8	203	-2.1	8	7	47	1.5	0.2	7.8	0.9	-0.4	19.6	85	85	305	-1.2	-2.3	-1.9
Denmark	0.3	0.7	46	5.6	180	1.2	8	7	43	1.5	1.3	5.6	-5.6	2.6	44.7	135	89	380	-0.9	-2.4	-1.9
Finland	-0.7	-0.5	60	5.6	180	3.0	8	5	83	1.5	1.3	5.6	0.6	-5.5	28.6	67	93	162	-1.4	-2.2	-1.9
UK	-2.0	-0.4	95	-2.8	370	6.3	12	6	30	2.9	1.7	2.9	-16.7	8.4	8.5	90	105	103	-0.4	-1.6	-1.7
Austria	-0.6	0.0	79	2.5	200	2.9	12	10	87	1.0	1.7	4.9	-2.3	3.0	12.4	55	89	124	-1.3	-1.3	-1.8
France	-0.3	-0.8	96	-1.7	207	0.9	17	13	64	0.5	0.7	9.5	0.9	-1.6	18.3	56	152	126	-0.6	-1.4	-1.4
Germany	2.5	-0.2	76	6.7	148	1.9	7	7	61	1.7	0.9	6.7	-2.8	0.9	23.5	56	89	58	-0.8	-1.8	-1.6
Netherlands	1.1	-0.5	75	10.6	293	3.4	14	11	56	0.7	1.6	8.3	-2.6	0.2	19.9	127	94	104	-1.2	-2.1	-1.8
Belgium	1.3	0.6	100	-0.9	250	1.3	15	12	63	1.0	0.6	8.6	0.5	0.6	33.8	57	198	63	-0.9	-1.6	-1.4
Italy	3.9	1.8	135	1.1	124	1.6	28	26	37	0.1	0.4	12.5	-2.9	-5.0	39.7	45	114	84	-0.5	0.0	-0.4
Spain	1.9	-0.5	85	0.3	172	1.2	21	13	40	1.3	0.1	24.5	-14.4	-4.6	40.7	76	170	123	0.0	-1.0	-1.0
Ireland	0.3	0.7	124	3.8	927	0.4	9	1	65	2.8	0.9	11.3	-20.0	7.2	18.6	100	291	184	-0.9	-1.4	-1.7
Portugal	2.3	0.6	127	0.1	239	0.1	21	17	64	0.9	0.1	13.7	-13.3	0.0	20.8	85	151	139	-0.7	-0.9	-1.0
Greece	5.3	-0.5	175	1.4	229	-1.3	16	13	86	-0.1	-0.3	26.6	-0.8	-4.5	43.3	64	78	94	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\* 2014: 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 <b>(1)</b>	Interest rate GDP growth differential 2014-19	Gross Public Debt <b>(1)</b>	Current Account Balance (1)	External Debt <b>(1)</b>	RER Appreciati on <b>(2)</b>	Gross	Reserves to Short Term External Debt <b>(3)</b>		GDP Growth (4)	Consumer L prices <b>(4)</b> n		Private Credit to GDP Growth (4)	Real Housing Prices Growth <b>(4)</b>	Equity Markets Growth <b>(4)</b>	Household Debt <b>(1)</b>	NF Corporate Debt <b>(1)</b>	Financial liquidity (6)	WB Political Stability <b>(7)</b>	WB Control Corruption (7)	WB Rule of Law <b>(7)</b>
Bulgaria	-0.8	0.4	22	2.0	98	0.1	4	1.6	44	1.6	-1.0	11.3	0.6	-6.7	24.3	23	89	100	-0.3	0.2	0.1
Czech Rep	-0.3	-0.2	49	-1.3	51	-6.6	9	6	31	2.0	1.7	7.6	0.1	4.0	14.9	33	49	83	-1.0	-0.2	-1.0
Croatia	-2.8	1.7	69	-1.6	111	-0.5	11	2.3	34	-0.6	0.9	20.2	-0.5	-2.5	-0.7	38	35	91	-0.6	0.0	-0.2
Hungary	1.6	1.2	79	1.6	143	-3.8	20	1.5	59	3.1	0.4	8.0	-2.3	5.8	-2.2	29	100	118	-0.7	-0.3	-0.6
Poland	-0.4	-0.9	50	-0.7	70	0.7	10	1.2	50	3.3	0.3	12.1	0.5	1.6	16.1	35	87	108	-1.0	-0.6	-0.7
Romania	-0.2	-1.1	40	-1.4	67	2.4	9	1.9	54	2.2	1.6	4.7	-4.6	0.8	33.3	20	47	126	-0.1	0.3	0.0
Russia	-0.1	-1.5	13	2.6	29	-5.1	2	5.3	22	-0.1	1.9	5.3	3.9	-6.2	11.0	15	35	125	0.8	1.0	0.8
Turkey	1.2	2.4	35	-5.8	46	0.6	26	1.0	31	1.5	7.9	9.3	11.2	4.1	2.9	15	38	127	1.2	-0.2	0.0
Argentina	-0.6	-21.0	44	-0.9	28	-23.9	5	1.0	36	-1.7	39.3	7.3	0.8	-28.4	165.0	8		74	-0.1	0.5	0.7
Brazil	2.0	4.3	67	-3.6	23	-4.4	19	10.9	19	1.3	6.2	5.4	0.7	2.0	12.0	26	37	131	-0.1	0.1	0.1
Chile	-1.0	0.1	13	-1.3	47	-7.3	2	2.5	18	2.3	3.7	6.0	1.1	9.9	-3.8	32	52	218	-0.3	-1.6	-1.4
Colombia	0.1	-0.1	36	-3.3	24	-4.9	4	3.8	29	4.7	3.4	9.5	0.4	8.8	9.7	16	24	214	1.4	0.4	0.4
Mexico	-1.4	-0.1	48	-1.5	33	2.0	10	2.3	47	2.5	3.7	4.9	2.2	0.4	9.3	16	29	106	0.7	0.4	0.6
Peru	0.5	-2.2	19	-5.1	31	7.2	1	10.8	60	5.2	3.0	5.9	2.1	4.2	7.2	12	23	92	0.9	0.4	0.6
China	-0.5	-6.1	56	1.7	7	5.8	6	6.4		7.5	2.2	4.1	9.7	3.3	-4.6	35	85	207	0.5	0.5	0.5
India	-2.4	-4.1	65	-1.9	24	-7.7	13	3.0	6	5.7	6.9	11.8	-1.8	-9.9	31.0	10	43	78	1.2	0.6	0.1
Indonesia	-1.2	-4.8	26	-3.2	29	-8.7	4	2.0	50	5.1	7.1	6.0	0.8	0.8	1.2	18	18	106	0.6	0.7	0.6
Malaysia	-1.7	-3.6	56	5.9	64	-1.4	9	2.7	26	6.4	3.3	3.1	1.0	3.6	6.2	97		92	0.0	-0.3	-0.5
Philippines	0.4	-2.3	35	3.4	20	2.1	8	9.2		6.4	4.4	7.0	1.3	13.8	5.9	3	29	57	1.2	0.6	0.5
Thailand	0.2	-3.2	47	3.1	37	0.2	9	2.2	12	2.5	2.3	0.6	-1.3	5.2	2.3	72	55	126	1.2	0.3	0.2

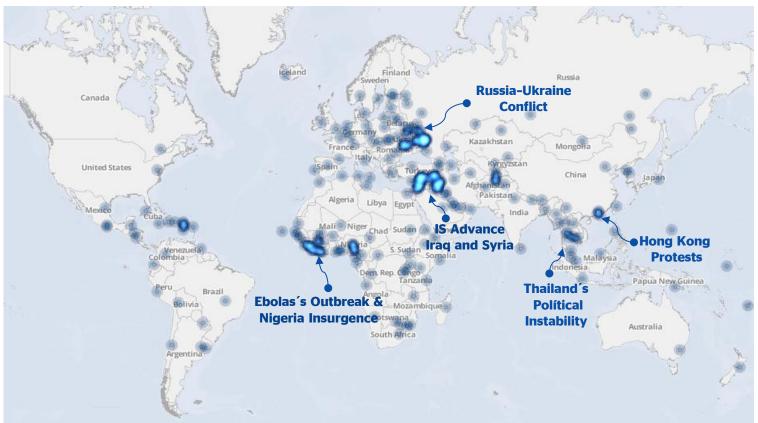
\*Vulnerability Indicators: (1) % GDP (2) Deviation from 4 years average (3) % of total debt (4) % year on year (5) % of Total Labor Force (6) Financial System Credit to Deposit (7) Index by World Bank Governance Indicators

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# Geopolitics: Tracking conflicts and protests

### **BBVA World Conflict Heatmap (3Q-2014)**

(Number of conflict / Total events) Source: <u>www.gdelt.org</u> & BBVA Research



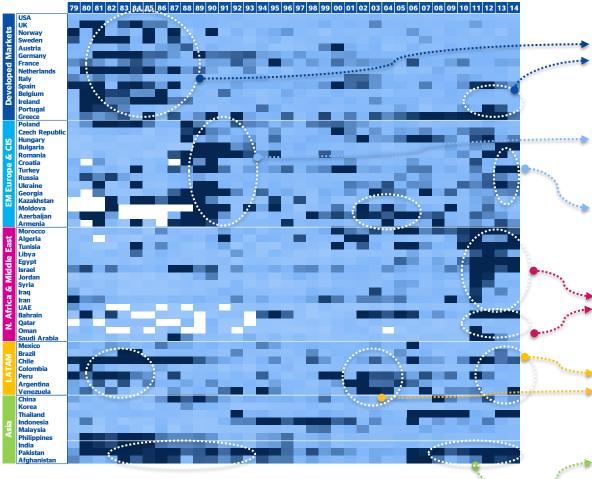
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## Special Topic Geopolitics: Tracking conflicts and protests

### World Protest Intensity Map (1979-2014)

Protest Intensity: Low

(Number of protests / Total events. Dark Blue: High Intensity) Source: <u>www.gdelt.org</u> & BBVA Research



High

Despite the contnious diffusion on the Media, **Protest intensity** <u>in Developed Countries</u> looks to be lower than in the Early Eighties... After a longer period of calm, the financial crises trigger a a rise in Social Unrest in some EU periphery countries. Fortunately is abating

**Emerging Europe and CIS countries** experienced high protest intensity just before of the fall of the comunism. Some revival of protest intensity should be monitored in Central Europe but specially in Russia, Ucraine and the Caucasus

North Africa and Middle East were serverely hitted by the Arab Spring and protest intensity continues in Northern Africa and some Gulf Countries

With some exceptions Latam'S protest intensity remain low relative to history. Most of the protests were associated to Economic Crisis (Debt crisis in the 80s and the latest regional crisis

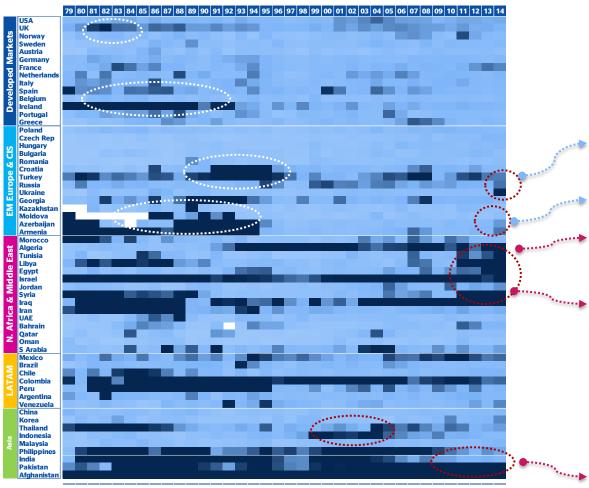
**Asia** remains calm with China's protest activity at moderate levels..with Thailand's at the top

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Protest Intensity: Low

### Special Topic Geopolitics: Tracking conflicts and protests World Conflict Intensity Map (1979-2014)

(Number of protests / Total events. Dark Blue: High Intensity) Source: www.gdelt.org & BBVA Research



High

Protest intensity do not pass through to conflicts in Developed Countries and the conflict intensity in these countries is rather low ... The last protest activity in Europe is mostly related to terrorism activity as in UK, Ireland and Spain during mid eighties

**Emergg Europe and CIS** countries haved reduced during the last decade. New worrying signal have recently appeared In Ukraine and Russia but also in some former republics

The conflict activity in <u>North Africa and Middle</u> <u>East</u> continue to be intense with critical situation in North Africa but also in Syria and Iraq. The conflict intensity in the Gulf Countries remains contained

<u>Latam's</u> conflict activity has been related to rebels activity (as in Colombia) or criminal activity (Mexico). Both countries show relaxing situations.

<u>Asia</u> remains calm with most of the conflict activity related to Central Asia (Afganistan, Pakistan)

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## Annex Methodology: Indicators and Maps

- Financial Stress Map: It stresses levels of according to the normalized time series movements. Higher positive standard units (1.5 or higher) stand for high levels of stress (dark blue) and lower standard deviations (-1.5 or below) stand 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) stand 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

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# 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

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# Methodology: Models and BBVA country risk

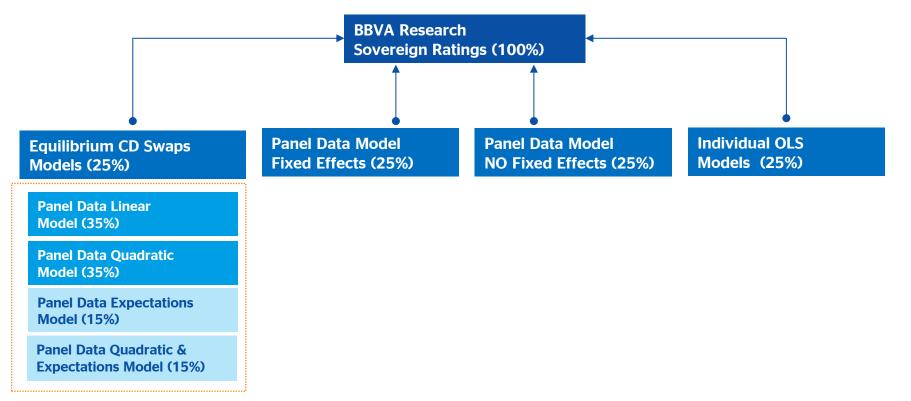
- **BBVA Research Sovereign Ratings Methodology:** We compute our sovereigns ratings by averaging four alternatives sovereign rating models developed at BBVA research:
  - Credit Default Swaps Equilibrium Panel Data Models: This model estimates actual and forecasts equilibrium levels of CD Swaps for 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 expectation 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 estimate 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



# Methodology: Models and BBVA country risk

### **BBVA Research Sovereign Ratings Methodology Diagram**

Source: BBVA Research



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# Methodology: Tracking Protests and Conflicts

We elaborate a tracking of protests and conflicts' indexes for every country in the world since January 1, 1979 through present day in daily, monthly, quarterly and annual frequency. To construct them, we use a rich Big-Data- base of international events (GDELT at www.gdelt.org) which monitors the world's events included in news media from nearly every corner of the world in print, broadcast, and web formats, in over 100 languages, every moment of every day and that stretches back to with daily updates.

- BBVA Protest Intensity Index: We collect every registered protest in the world for a particular time considering a wide variety of protests as: demonstrate or rally, demonstrate for leadership change, demonstrate for policy change, demonstrate for rights, demonstrate for change in institutions and regime, conduct hunger strike for leadership change, conduct hunger strike for policy change, conduct hunger strike or boycott for leadership change, conduct strike or boycott for policy change, conduct strike or boycott for leadership change, conduct strike or boycott for policy change, conduct strike or boycott for leadership change, conduct strike or boycott for policy change, conduct strike or boycott for change in institutions and regime, conduct strike or boycott for policy change, obstruct passage or block, obstruct passage to demand leadership change, obstruct passage to demand policy change, obstruct passage to demand change in institutions and regime, protest violently or riot, engage in violent protest for policy change, engage in violent protest for change in institutions and regime, not specified before, engage in violent protest for change in institutions and regime, protest violently or riot, engage in violent protest for change in institutions and regime, protest for rights, engage in violent protest for change in institutions and regime, engage in violent protest for change in institutions and regime, engage in violent protest for change in institutions and regime, protest for rights, engage in violent protest for change in institutions and regime, engage in violent protest for change in institutions and regime, engage in violent protest for change in institutions and regime, engage in violent protest for change in institutions and regime, engage in violent protest for change in institutions and regime, engage in violent protest for change in institutions and regime, engage in violent protest for change in institutions and regime, engage in violent protest for change in institutions and regime, enga
- BBVA Conflict Intensity index: In the same way, we collect every registered conflict in the world for a particular time considering a wide variety of conflicts as: impose restrictions on political freedoms, ban political parties or politicians, impose curfew, impose state of emergency or martial law, conduct suicide, carry out suicide bombing, carry out car bombing, carry out roadside bombing, car or other non-military bombing not specified below, use as human shield, use conventional military force not specified before, impose blockade, restrict movement, occupy territory, fight with artillery and tanks, employ aerial weapons, violate ceasefire, engage in mass expulsion, engage in mass killings, engage in ethnic cleansing, use unconventional mass violence not specified before. Use chemical, biological, or radiological weapons, detonate nuclear weapons, use weapons of mass destruction not specified before.

Using this information, we construct an intensity index for both events. The number of protests and conflicts each month are divided by the total number of all events recorded in GDELT that month to create a protest and conflict intensity score that tracks just how prevalent protest and conflict activity has been month-by-month over the last quarter-century, correcting thus for the exponential rise in media coverage over the last 30 years and the imperfect nature of computer processing of the news.



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