

Cross-Country Emerging Markets Analysis

Economic Watch

Madrid, 21 January 2011

Economic Analysis

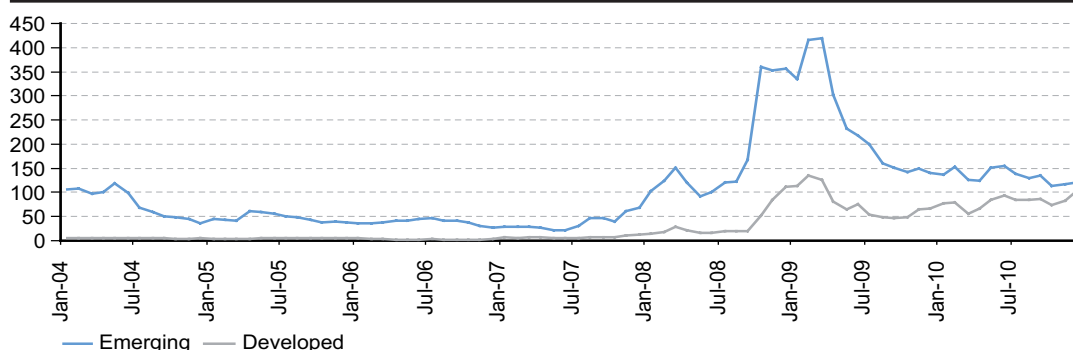
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2011, mostly positive for sovereign risk in Emerging Markets

- **Emerging markets' sovereign CDS experienced a very significant tightening versus developed markets during 2010.** On top of the uncertainties in European sovereign risk, emerging market sovereign premiums were generally tighter over the year.
- **The main drivers of 2010 are likely to continue in 2011, supporting some further tightening in our baseline,** but the scope for large gains is increasingly dependent on an improvement in global risk.
- **Negative contagion from Europe should still be limited,** as investors are correctly betting that uncertainties in Europe will not take a significant toll on the macro performance of most EMs. Our baseline scenario of a gradual resolution of European woes would justify an additional downward correction in risk aversion, which would benefit emerging markets, given their higher exposure to our estimated global risk factor.
- **Macro conditions will remain supportive, even if not improving.** Our forecasts envision only a moderate slowdown in growth, driven by gradual tightening of monetary and fiscal policy levers. Incoming data confirm that the negative impact of the crisis in the fiscal and external vulnerability indicators of EMs has been temporary, and we do not foresee a worsening in 2011.
- **Emerging markets will continue to benefit from the heightened market focus on fiscal and external vulnerability,** a direct consequence of the incoming noise from European problems. However, this focus also is likely to imply increasing discrimination between emerging markets.
- **The outlook is positive, but countries with more pressing inflation issues and more fragile institutions could be the weak spots in 2011.** Inflation was increasingly priced over the second half of the year and discrimination of the basis of this criterion is probably warranted. As for institutions, the recent focus in macro performance is also resulting in investors overlooking institutional differences across countries, but events in Egypt show this may not be a permanent equilibrium.

Chart 1

The convergence of emerging and developed sovereign risk premiums continues*

* Median of 5 year Sovereign Credit Default Swaps (USD)

Emerging markets = Slovakia, Slovenia, Poland, Thailand, Czech Republic, Brazil, China, Mexico, Colombia, Peru, Philippines, Hungary, South Korea, Turkey, Croatia, South Africa, Chile, Malaysia, Romania, Bulgaria, Indonesia, Russia, Venezuela, Argentina. Developed markets = Japan, Belgium, France, Italy, Portugal, Germany, Greece, Spain, Ireland, Austria, Australia, Denmark, Sweden, Norway, Iceland
Source: CMA

The dramatic compression of sovereign risk between emerging and developed economies has captured the attention of many market participants in 2010. Given the uncertainties that still surround the European crisis, it is too early to assess if markets are getting the potential implications for developed markets correctly. But this story is not only about developed economies: emerging market sovereign premiums have shown a surprising strength. We think the underlying forces behind this positive performance are likely to be maintained in 2011, but the scope of any substantial tightening is now more dependent on the evolution of global events.

Overall, 2010 was a year of tranquillity for sovereign risk premiums in emerging markets. Excluding some very large swings in Argentina (positive), Venezuela and Hungary (both negative), most markets ended the year close to where they started it. Generally speaking, countries trading wider initially showed larger gains (chart 2), resulting in a concentration of names in the 75-150 bp range. Some discrimination was still at work as sovereign spreads at some Emerging European countries experienced a significant deterioration in view of their ongoing financial difficulties. Spreads in Latin America and Asia were generally tighter during the year. Considering the large swings observed in other risk asset categories and the events affecting the pricing of sovereign risk in Europe, this stability is quite remarkable.

Looking into 2011, we take advantage of the results from our sovereign country risk model, which allows assessing a country's idiosyncratic risk based on the value of its fundamentals and on the isolation of common or global factors that may temporarily affect the markets' valuation of a country's risk. The presence of common factors related to global markets sentiment, risk aversion and global markets' liquidity avoid CDS spreads to be an adequate measure of a country's idiosyncratic risk. Our model is able to correctly isolate the global risk factor, because it is able to identify the specific sensitivity of every country to such factor, which could differ because of "flight to quality" and "flight to liquidity" effects in times of higher risk aversion and lower liquidity.

Thus, in the spirit of a CAPM for credit risk, we decompose the CDS spread into a global risk (systematic) component, a macroeconomic risk factor, and an institutional factor. The systematic component and the countries' sensitivity to it are estimated using a state-space filter. The model also allows us to estimate the sensitivity of markets to several macro and institutional variables, including GDP growth, inflation, fiscal deficit, public debt, current account, external debt, political stability and "rule of law", as well as a fixed country effect¹.

1: Additional details on the model can be found in the appendix and in a forthcoming working paper.

Limited contagion from the European debt crisis likely to continue

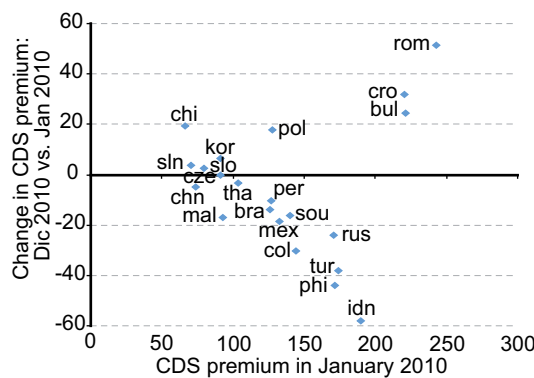
The first factor behind the strength of EM sovereign CDS was simply that the European debt did not have an impact beyond the European economies. In fact, our estimation of the global risk factor showed a moderate improvement during the year. Investors were quite confident that events in Europe would not have a significant impact on the credit profile of emerging markets.

Our local economist teams are generally quite optimistic in this regard especially in view of the stronger data observed in most EMs recently, which lends support to the self-sustaining nature of growth in the key economies. We think this view is quite robust and do not expect contagion effects to materialize even if the situation in Europe deteriorates in coming months, as long as the process remains gradual and limited. The impact of an extension of cyclical concerns to the United States could, however, be less benign for emerging markets sovereign CDS spreads. Also, Eastern European countries with closer commercial and financial ties with the EMU are vulnerable in our view. Negative dynamics in Europe could add to their own economic woes either because slower growth finally hits the EMU or because financial support from Europe comes under market scrutiny at some point.

On the opposite direction, if debt problems in Europe are finally fixed as we expect, we could see a further leg in the downward adjustment of systematic risk, which would benefit emerging markets because of their higher sensitivity to global conditions.

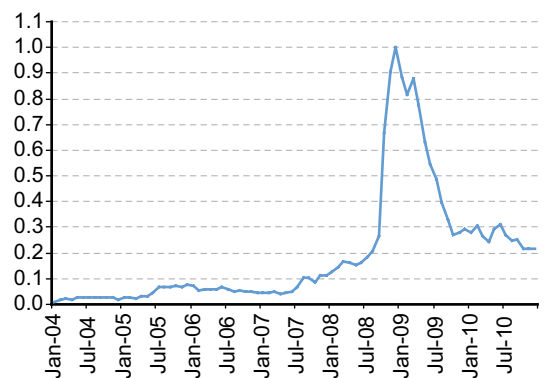
Median response of CDS forecast to a 10 bp change in global risk factor:
Emerging = 25 bp
Developed = 8 bp

Chart 2
5 year sovereign CDS



Source: CMA

Chart 3
Global Risk Factor



Source: BBVA Research

General tightening of EM CDS, with the exception of Eastern Europe names
No contagion from Europe, moderate improvement in systemic risk component

The crisis has only caused a temporary negative impact on EMs macro conditions

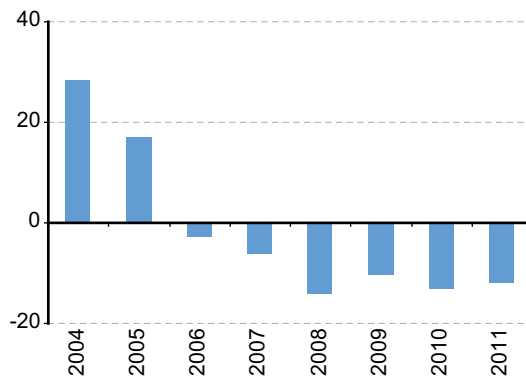
The story of continued improvement in fiscal, monetary and financial policies, jointly with booming external sectors and reserve accumulation is well known. According to our estimates, good macroeconomic policies had paid off handsomely. The prudent conduct of macro policy drove the contribution to CDS spreads of “macro risk” in emerging markets from high and positive in the early 2000s to deeply negative in late 2008. This trend was partially reversed in 2009, but the quick rebound of activity and the recovery of external surpluses in 2010 have brought the macro risk factor back to its pre-crisis levels. Looking ahead, our macroeconomic forecasts do not anticipate a significant deterioration, as fiscal policy should start to tighten in 2011 and external positions will remain mostly stable (chart 4). See our latest Asian and Latin Economic Outlook² reports for additional details.

Our view about the cyclical situation is reasonably positive. Our forecasts call for a moderate slowdown in growth but it will still remain very high. This high pace of growth is heightening concerns about inflation and whether it creates the risk of a sharper slowdown down the road driven by a stronger need for monetary policy tightening. Our view is that these risks are not as large as markets are discounting, and the threat of inflation should be manageable with appropriate policy response in the key emerging markets in 2011.

2: Latin Economic Outlook (link: http://serviciodeestudios.bbva.com/KETD/fbin/mult/ISTLT_02122010_03_tcm348-238785.pdf?ts=20120111) Asian Economic Outlook (link: http://serviciodeestudios.bbva.com/KETD/fbin/mult/101104_Asia_Outlook_Q4_EN_tcm348-235057.pdf?ts=20120111) and country-specific reports in our webpage (link: <http://www.bbvarsearch.com/KETD/ketd/ing/index.jsp>)

Nevertheless, markets became increasingly sensitive to inflation in 2010 (chart 5). This creates the potential for setbacks of recent gains in those economies who fail to address price pressures early on and calls for some more discrimination when choosing countries. Since our estimates give little weight to growth, this favourable trade-off would tend to confirm our view that policymakers in EMs will pay increasing attention to inflation in 2011, as their confidence in growth gets stronger. But it also suggests that countries which prioritize growth –for example, in the context of electoral cycles– will see limited benefits from it and could be strongly penalized for price pressures.

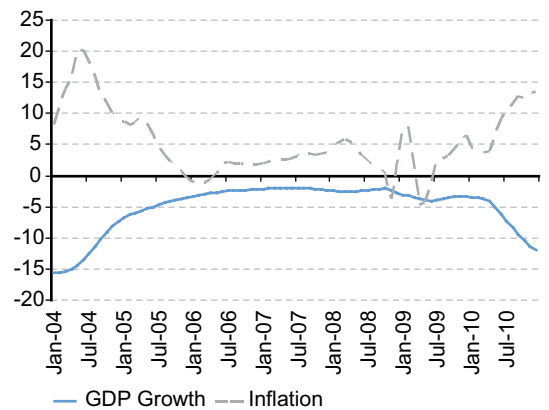
Chart 4
Macro risk contribution to CDS forecast. Median of EM sample



Macro conditions worsened only temporarily, and are expected to remain supportive in 2011
Market increasingly worried about inflation

Source: BBVA Research

Chart 5
Estimated sensitivity of macro risk to growth and inflation*



* Change in estimated CDS in response to a 1% increase in growth or inflation.
Source: BBVA Research.

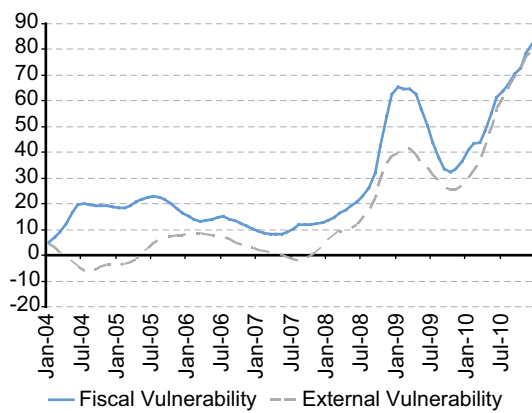
A shift in CDS pricing, after “the great complacency”

Emerging markets in 2010 benefited from a radical shift in the pricing of sovereign risk. During the pre-crisis period of ultra-low risks prices (which could be reasonably characterized as “the great complacency”), market participants essentially ignored differences in public debt levels, fiscal deficits, or external financing requirements. That changed radically after Lehman and the process is still ongoing. Our estimates document this drastic shift in the premiums market participants are demanding to compensate for fiscal and external vulnerabilities. Emerging markets, with their better macroeconomic indicators, have seen little negative effect from this, benefiting from the relative comparison with developed markets. Given the likelihood of continued fiscal problems in the EMU, it is hard to envision a return to the old times any time soon, so we think of this as a lasting favourable factor for EM risk premiums. However, it also implies larger tail risks for countries that experience slippages in their fiscal adjustments or unexpected deterioration of their current accounts. In view of this, we anticipate increasing discrimination between emerging markets on the basis of their fiscal/external prospects.

While this is positive, there is another element in this shift in pricing that is not getting as much attention and clearly benefits emerging markets. As investors focus on macroeconomics, the premiums they are demanding to compensate for institutional risks are apparently diminishing. So much so, that we think there are reasonable grounds to claim that investors may be overstating the case and some discrimination for institutional reasons should be warranted. Given that the institutional environment is still significantly worse in EMs compared to the more developed economies, this is the one area where we think some evidence of “bubbly” pricing may be appearing. However, the recent widening of spreads in Egypt in response to events in Tunisia serves as a useful reminder that investors can not take this as a permanent equilibrium.

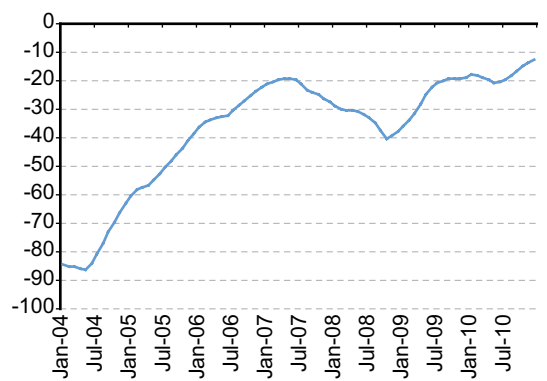
Fiscal and external vulnerability is everything that matters these days
Which implies institutional differences are getting overlooked

Chart 6
Estimated sensitivity to fiscal and external vulnerability indicators*



* Change in estimated CDS in response to a 1 standard deviation change in fiscal or external vulnerability indicator.
Source: BBVA Research

Chart 7
Estimated sensitivity to institutional variables**



* Change in estimated CDS in response to a 1 standard deviation change in institutional quality indicator.
Source: BBVA Research

Summing up into 2011

Overall, our forecasts for the world economy in 2011 tend to favour the view that we should see a further tightening of credit risk premiums in emerging markets. Regarding systematic risk, while direct contagion from the European crisis has been limited, we suspect the unfolding of events has prevented a further reduction in risk aversion that would have probably followed after the Fed's QE2. Accordingly, any form of resolution of European woes (barring a doomsday scenario, which we still see as unlikely) could result in further downward pressure on EM credit default swaps. Stable and positive macro conditions should accommodate this reduction, even if some countries are forced to rein in growth with additional tightening measures. On a more negative tone, countries that fail to rein in inflation could be particularly penalized in 2011, and those with poorer institutional conditions may be subject to setbacks in a scenario of progressive normalization of market pricing.

Appendix: sovereign CDS model

The dependent variable used is the monthly average of 5 year US dollar sovereign credit default swaps (CDS). The methodology combines three different statistical methodologies in three sequential steps. In a first step we construct three compound indexes that summarize the information coming from different idiosyncratic variables. In a second step, we estimate a State-Space model in order to separate the observed CDS of a given country into two different components: a global risk component and an idiosyncratic risk component. Finally, we use the output of the State-Space results to re-estimate the contributions of the idiosyncratic variables to the total observed country risk, through a Tobit-Panel model with country-fixed effects.

1. Principal Components: Fiscal, External and Institutional Strength Indicators

Using Principal Component Analysis we construct an indicator of the strength of the fiscal position of a given country by combining its Fiscal Balance to GDP ratio with its Public Debt to GDP ratio in a single variable. Similarly, we construct an indicator of the strength of the external position of a given country by combining its Current Account to GDP ratio with its External Debt to Private Credit ratio. Finally, we construct an indicator of the strength of a country's institutions by combining the "Rule of Law" and the "Political Stability" Indexes from the World Governance Indicators.

2. State-Space Model

The total risk of a country (i) is disaggregated into two separated structural components and a noise component (a residual, $\epsilon_{i,t}$):

$$\text{Country Risk}_{i,t} = \text{Global Risk}_t + \text{Idiosyncratic Risk}_{i,t} + \epsilon_{i,t}$$

Where the global risk component is the first factor in the estimated state-space equation weighted by a parameter λ_i that determines the impact of the global risk in the observed risk of each country:

$$\text{Global Risk}_{i,t} = \lambda_i \mu_{1,t}$$

The idiosyncratic component of each country is explained by a set of r observed idiosyncratic variables X_1, \dots, X_r :

$$\text{Idiosyncratic Risk}_{i,t} = \beta_1 X_{1,i,t} + \dots + \beta_r X_{r,i,t}$$

Through the State-Space Model Representation:

- The factors (μ) (states): are estimated through a Kalman filter
- The coefficients (β) (states): are estimated through a Kalman filter
- The parameters (λ, ω) (loadings and variances): are estimated through a gaussian maximum likelihood associated to the Kalman filter

The variables that define the idiosyncratic component are:

- GDP growth rate
- Inflation rate
- Institutional Indicator (PCA).
- Fiscal Position Indicator (PCA)
- External Position Indicator (PCA)

3. Panel estimation: Tobit with country effects

Using the output of the state-space estimation, the model is re-estimated to allow introducing country effects and to correct for the limited distribution characteristic of the dependent variable. Therefore, the coefficients of the idiosyncratic explanatory variables are re-estimated using a Tobit Model in Panel data with country dummies. The Tobit Panel Methodology also allows testing the statistical significance of the idiosyncratic variables in a simpler manner than using the State-Space model. It also simplifies making any other kind of statistical inference.

In this step we use the Global Risk component estimated from the State-Space as an independent variable in the following equation:

$$\text{Country Risk}_{i,t} = \text{Global Risk (Estimated)}_t + \beta_1 X_{1,i,t} + \dots + \beta_r X_{r,i,t} + \delta_i + u_{i,t}$$

Where δ_i correspond to each country fixed effect (dummy variable) and $u_{i,t}$ is the new error term. In this equation we expect the coefficient of the estimated Global Risk component to be equal to one.

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