

## Emerging Markets

# Economic Watch

June 16, 2010

## Greek Sovereign Debt Crisis: Assessing Contagion to Emerging Economies

### Economic Analysis

**Sonsoles Castillo**  
s.castillo@grupobbva.com

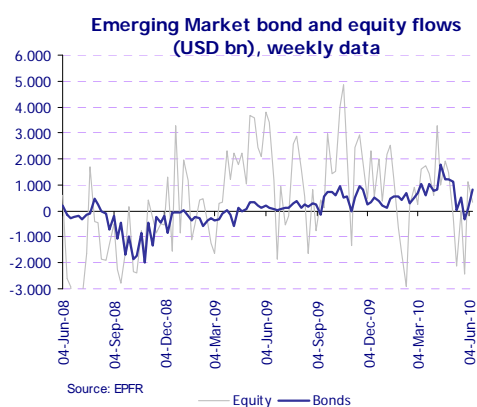
**José Ramón Perea**  
jramon.perea@grupobbva.com

**Soledad Zignago**  
soledad.zignago@grupobbva.com

**Mario Nigrinis**  
mario.nigrinis@bbva.com.hk

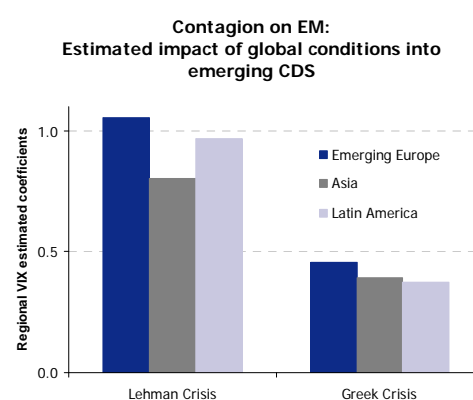
- The impact of Greek Sovereign Debt Crisis on capital flows into Emerging Market (EM) economies has been quite mute. In fact, fixed income funds have virtually remained on positive territory during the current turmoil
- A regional comparison leaves Emerging Europe as the worst performer in this episode as happened already during Lehman Brothers' default. However, CDS rose more then and stock markets fell further.
- The impact on commodity prices has been much less severe this time around probably due to the USD appreciation and China's rapid growth.

Chart 1  
**Emerging Markets Bond and Equity flows (USD bn) weekly data**



Source: EPFR and BBVA Research

Chart 2  
**Contagion on EM: Estimated impact of global conditions into emerging CDS**



Note: Panel regressions explaining daily CDS of 23 countries by the VIX index interacted with regional dummies.

Source: BBVA Research

## **Debt flows to EM have proved to be specially resilience during the recent market turbulence. Intense but short-lived equity outflows**

The most recent crisis in international markets, triggered by the sovereign debt problems in Greece, and later spread to other countries in Southern Europe, has led to a new increase in global risk aversion rates, and a consequential movement of capital flows to safe-haven assets.

In this context, emerging markets have obviously been affected in terms of their financial variables, although the contagion, as we will see, seems to have been quite limited in general terms.

Starting with shorter-term capital flows, we can see that net outflows only took place in late May, coinciding with moments of great tension in international markets. During the rest of the period, which extended for two months, capital inflows have been recorded, although at volumes much more moderate than in preceding months. Indeed, we should remember that in the months preceding the crisis one of the risk elements facing many emerging economies were strong capital inflows and strong upward pressure on currencies. The European crisis has halted this process.

When compared with the Lehman Brothers incident, we can see that both equity and fixed-income flows were affected very negatively, whereas now fixed-income flows have remained very resilient, with capital inflows throughout practically the entire crisis episode. This trend must be described as very favourable if we compare it, for example, with the outflows that have been observed from funds investing in high-yield assets, which accumulate six consecutive weeks of outflows.

Equity flows, which are more volatile by definition, have been more penalized to some extent, due to several consecutive weeks of capital outflows. However, even in the worst moments of this crisis episode, outflows were much more moderate (less than 0.5% of the assets) than in the Lehman Brothers crisis (when they reached 0.9% of assets).

In short, it can be said that investors have continued to turn to emerging economies as a destination for their investments. There has been no significant capital flight, and even during the moments of greatest tension, movements were moderate and reverted to positive figures. Without a doubt, there are two elements here that have acted as counterweights. On the one hand, the positive news coming from the macroeconomic front, which support the dynamism and strength of the recovery in many emerging economies, especially the largest ones. And on the other hand, the better solvency of these economies with regards to public finances. With few exceptions, the level of public borrowing is no reason for concern. This is particularly true in many Latin American countries, where the deterioration of public finances associated with the cyclical downturn has been quite limited, public borrowing levels are low compared to other regions, and the withdrawal of fiscal and monetary stimuli is already underway or has been announced in several countries.

## **A closer look at the EM regions leaves, again, Emerging Europe as worst performer in this episode**

Next, we will look at the impact of the European debt crisis on three of the main emerging regions (Emerging Asia, Latin America and Emerging Europe) through three variables: stock market, sovereign risk premiums (proxied by 5-year sovereign CDS) and exchange rates. This impact is put into perspective in order to be able to compare it with the Lehman Brothers episode. Two main conclusions can be drawn here. Firstly, that the current crisis has little to do with the collapse of Lehman Brothers, since deterioration in any of the aforementioned financial variables has been moderate. And secondly, that a comparison by regions leaves Emerging Europe as the most affected area; this can be confirmed by any of the analyzed variables and, in the case of CDS, is supported by the results of an econometric exercise.

Although this note does not intend to offer an in-depth assessment of the factors that would explain this result, the following can be mentioned: i) its worse starting position in terms of fundamentals, i.e., debt and financing needs, and ii) its greater exposure to Europe through any of the channels, whether real (trade) or financial (Europe's reliance in terms of financing its deficits and, particularly, on foreign banks). Both elements would work against Emerging Europe countries to a varying extent.

### **Stock market evolution**

The uncertainty surrounding the European crisis has cast doubts on the sustainability of global recovery, and this has been reflected on stock prices, which in general, by countries or sectors, have lost value. Stock price adjustment in the emerging world began in early May, and losses have accumulated since then: around 10% in Latin America and Asia, and 15% in Emerging Europe

(some countries such as Romania or Hungary have recorded greater falls). In fact, in some cases the impact on the stock exchanges has been practically negligible (Philippines, India, Korea, Mexico), even with revaluations (Chile), which have restored some indexes to the levels recorded at the beginning of the year.

This degree of adjustment of stock-market valuations clearly differs from the one recorded in the months following the collapse of Lehman Brothers. The range of falls in the main emerging economies fluctuated then between 60% (Bulgaria, the Baltic countries and Russia) and 10% in some Asian and Latin American countries. On average, the adjustment exceeded 40% in Emerging Europe, 30% in Latin America and 20% in Asia.

The moderate valuation adjustment during this episode compared to the Lehman Brothers incident reflects to a great extent the different cyclical outlook that the market discounts at each moment. The strong correction in late 2008 was a foretaste of recession, whereas the current correction suggests a not so unfavorable scenario. In the specific case of emerging economies, the outlook hints at the consolidation of high growth rates in 2010, which should continue in 2011 in the most dynamic regions of Emerging Asia, most of Latin America and some countries in Emerging Europe, such as Turkey.

### Credit markets

Deteriorating confidence in the sustainability of the public finances of developed economies, particularly in Europe, has led to a spectacular increase in sovereign debt risk premiums. In some cases, these risk premiums are well above those in emerging economies, since this movement has been more limited in the latter. The most significant increases (100-150 bp) in risk premiums have been concentrated in a few European countries (Hungary, Romania and Bulgaria), which have been penalized for having a more vulnerable fiscal position, or for having close financial links with Greece. In Argentina and Venezuela, being more vulnerable economies from the point of view of public finance sustainability, risk premiums also rose notably, although in the case of Argentina the situation is reverting very quickly. The increase in risk premiums has been more moderate in the rest of European countries and in Korea. In the rest of the countries, the deterioration in premiums has been practically negligible.

### Estimated impact of global conditions into Emerging Markets' CDS

Beyond the graphs illustration, we can provide through a panel econometric exercise the existence of both: i) a lower impact of the current crisis episode when compare with Lehman Brothers and ii) higher exposure of Emerging Europe – vs. Latam and Emerging Asia- to global risk aversion.

We estimate the impact of global conditions on different emerging markets sovereign CDS. We consider the VIX index, which represents one measure of the market's expectation of volatility over the next 30 day period (of S&P 500 index options), as a proxy of these global tensions. We run the following panel regressions explaining daily CDS of 23 countries by the VIX index, interacted by regional dummies, and country-specific fixed effects (omitted for sake of simplicity):

$$\text{Log}(CDS_{it}) = \text{EmEur} * \text{Log}(VIX_t) + \text{LatAm} * \text{Log}(VIX_t) + \text{Asia} * \text{Log}(VIX_t) + \text{cons}$$

where  $i$  is the country index,  $t$  is the day, EmEur, LatAm and Asia are dummy variables equal to 1 when country  $i$  belongs to emerging Europe, Latin America and emerging Asia respectively. The interaction of these dummies with the VIX variable aims to capture the differential impact of global conditions on each emerging region.

The first result is that emerging markets have reacted more to global conditions during the Lehman crisis than in the current crisis. The mean elasticity of CDS to global conditions is of 0.95 during the Lehman period (August 2008 – April 2009), while during this current crisis (since April) the elasticity to global volatility is 0.41.

Secondly, in both crises, the impact of global conditions on CDS is stronger for emerging Europe countries: the estimated coefficient during the Lehman period is 1.05 vs 0.97 for Asia and 0.81 for Latin American countries. Since April, these coefficients are 0.46 vs 0.39 and 0.37 respectively.

### Exchange rates

Prior to the European debt crisis, exchange rates in most emerging economies were undergoing strong appreciation pressures. The remarkable dynamism of economic activity, together with the expectation of rises in interest rates, led to strong capital inflows and contributed to strengthen the currencies. In fact, in some countries (especially in Latin America), intervention mechanisms were put in place to discourage short-term capital inflows, together with interventions in capital markets in order to set a floor for the rates of exchange against the dollar. At that time, this was a major risk factor for emerging economies.

With the arrival of the crisis, inflows have reversed and expectations of rises in interest rates are more restrained in some cases. In a context of greater risk aversion, currencies depreciate against the dollar (which becomes significantly stronger against the euro). Here we can once again claim that currency adjustment has been very moderate in most cases (below 6%), and somewhat more marked (around 10%) in Korea and most Emerging Europe currencies, which have also been dragged down by both idiosyncratic factors and the euro's depreciation. As in other markets, FX markets have suffered only mild contagion, compared with the depreciation ranges observed after the collapse of Lehman Brothers, reaching 20-25% in some of the largest economies (Mexico, Brazil, Poland and Turkey).

### Commodity prices

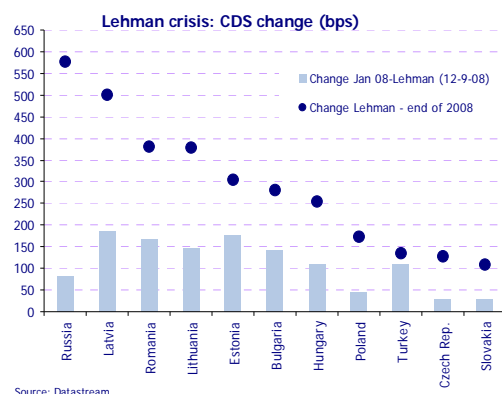
For net commodity-exporting economies (practically all of Latin America and some countries in Emerging Europe and Asia), one of the possible collateral effects of the European crisis is the fall in commodity prices.

Commodity prices have fallen, when denominated in USD, however this seems to be more a reflection of a stronger dollar than a consequence of weaker fundamentals: prices denominated in euros are about 10% above than the levels recorded in January, with the exception of copper.

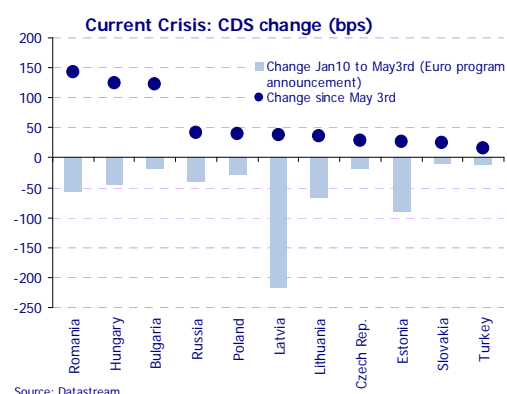
Commodity prices have been reacting to at least three common factors in the latest weeks: i) higher risk aversion due to concerns about the financial health of Europe, ii) expectations of further monetary tightening in China due to risk of overheating and iii) the increase in the value of the dollar vis a vis the euro. Even though we think the current parity is closer to the equilibrium one, the suddenness of the adjustment can only be attributed to fears about Europe and we can call it "indirect contagion".

In all, the impact of China is higher than direct contagion from Greece. A more comprehensive econometric analysis, relating daily percent changes in copper and oil prices to the same changes in CDS in Greece, MSCI in China and in the parity of the dollar-euro, shows the following. Greek fears and Chinese expectations move in opposite direction and have similar quantitative impact on commodity prices. Both are statistically significant. So there is evidence of contagion from Euro-fears on commodity prices, but it is mostly through the exchange rate mechanism.

Chart 3  
CDS in Emerging Europe

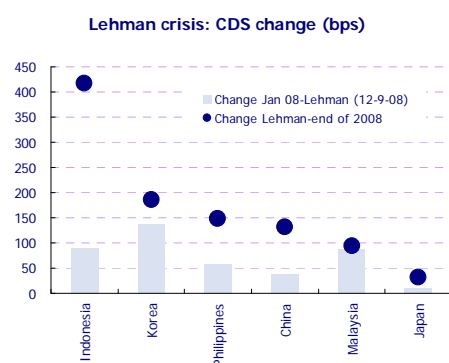


Source: BBVA Research

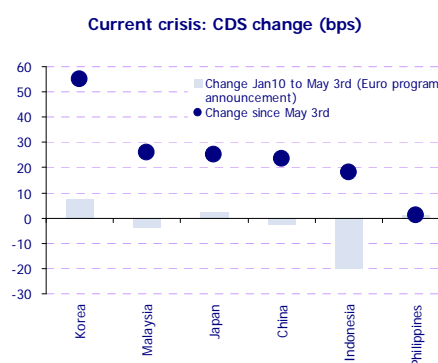


Source: BBVA Research

Chart 4  
CDS in Asia

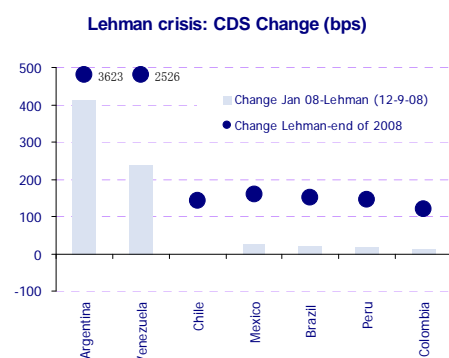


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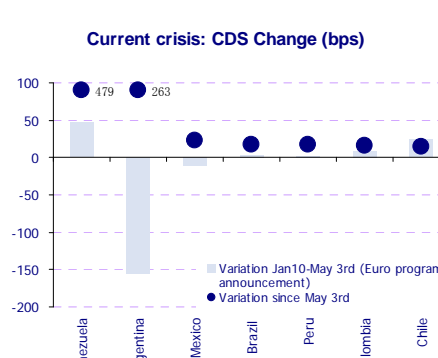


Source: BBVA Research

Chart 5  
CDS in LATAM

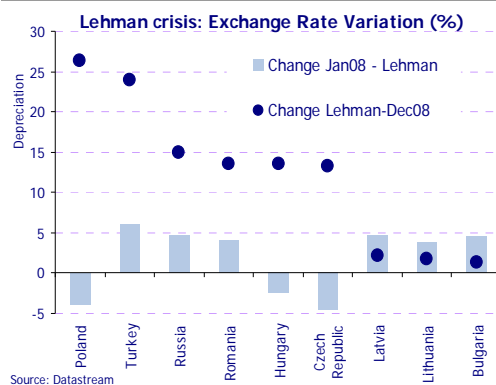


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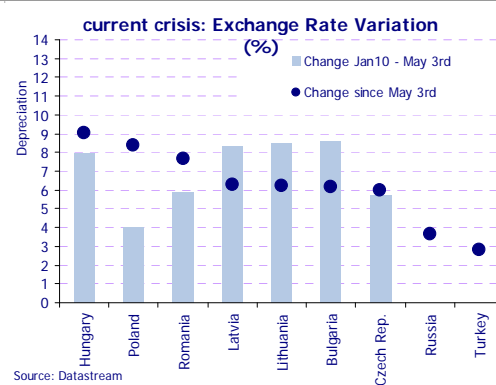


Source: BBVA Research

Chart 6  
Exchange Rates in Emerging Europe

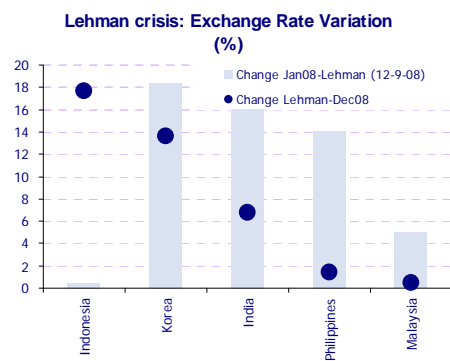


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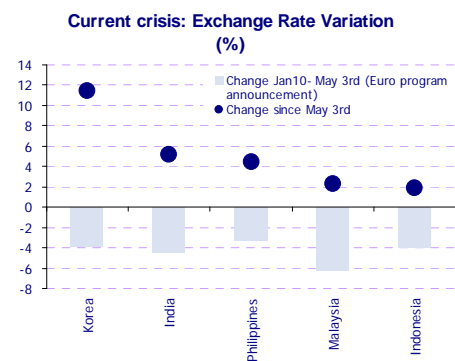


Source: BBVA Research

Chart 7  
Exchange Rates in Asia



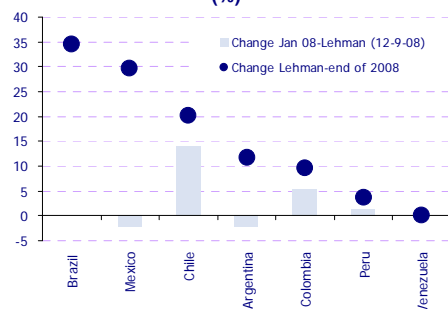
Source: BBVA Research



Source: BBVA Research

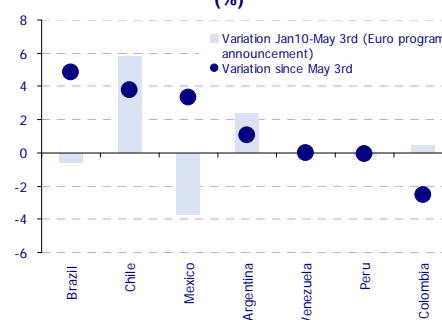
Chart 8  
Exchange Rates in LATAM

Lehman crisis: FX Variation (%)



Source: BBVA Research

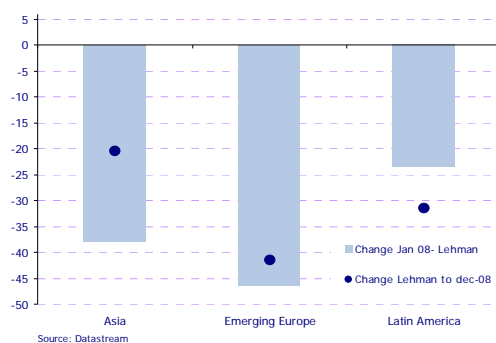
Current crisis: FX Variation (%)



Source: BBVA Research

Chart 9 Stock Exchange Index for Emerging Markets

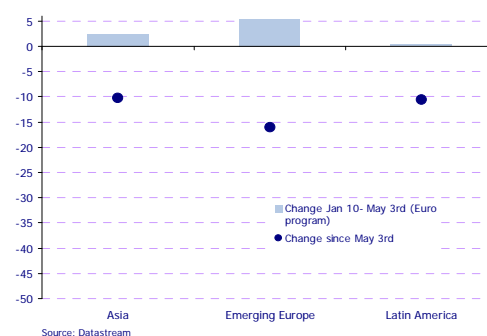
Lehman crisis: MSCI change (%)



Source: Datastream

Source: BBVA Research

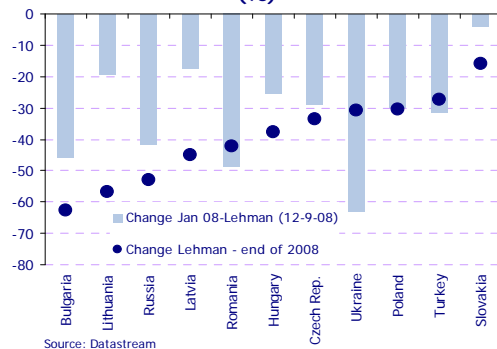
Current crisis: MSCI change (%)



Source: Datastream

Chart 10 Stock Exchange in Emerging Europe

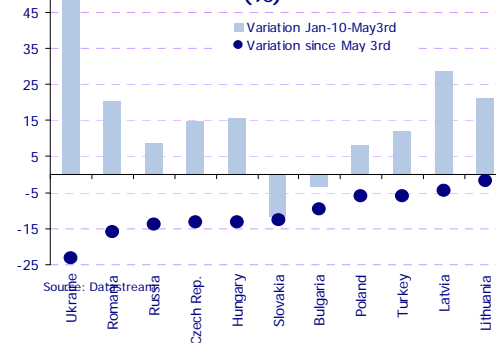
Lehman crisis: Stock Exchange Variation (%)



Source: Datastream

Source: BBVA Research

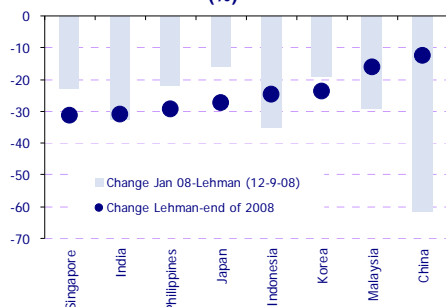
Current Crisis: Stock Exchange Variation (%)



Source: BBVA Research

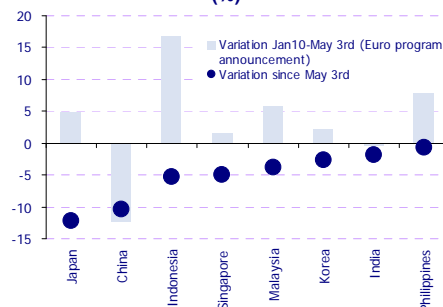
Chart 11 Stock Exchange in Asia

Lehman crisis: Stock Exchange Variation (%)



Source: BBVA Research

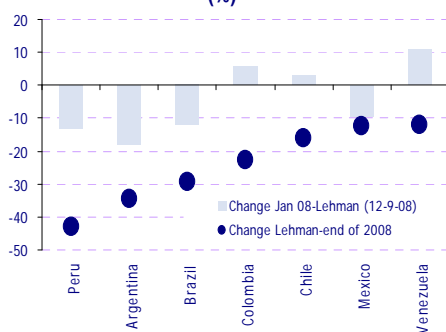
Current crisis: Stock Exchange Variation (%)



Source: BBVA Research

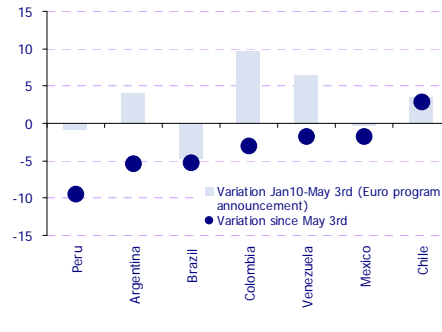
Chart 12  
Stock Exchange in LATAM

Lehman crisis: Stock Exchange Variation (%)



Source: BBVA Research

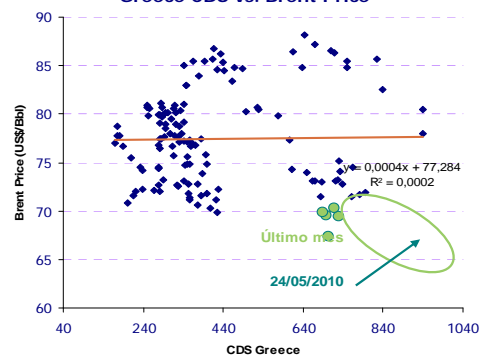
Current crisis: Stock Exchange Variation (%)



Source: BBVA Research

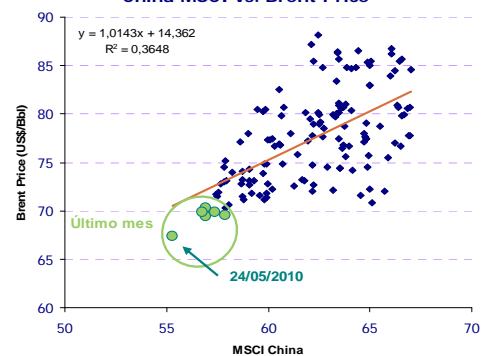
Chart 13  
Oil Price vs Risk Aversion and Chinese Demand

Greece CDS vs. Brent Price



Source: Datastream

China MSCI vs. Brent Price



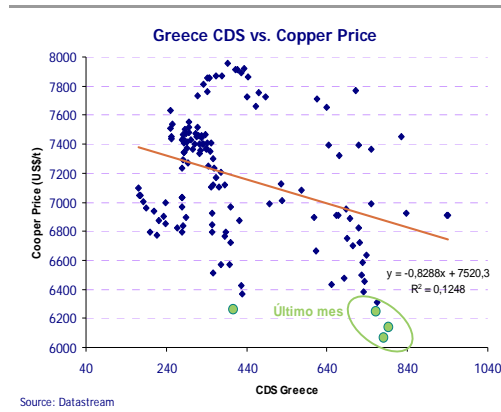
Source: Datastream

Source: BBVA Research

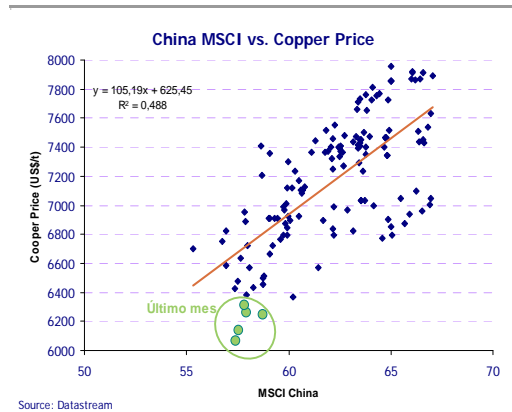
Source: BBVA Research

Chart 14  
Cooper Price vs Risk Aversion and Chinese Demand





Source: BBVA Research



Source: BBVA Research

This report has been produced by Emerging Markets Unit, Cross-Country Analysis Team

*Chief Economist, Emerging Markets*

**Alicia García-Herrero**

852 2582 3281

alicia.garcia-herrero@bbva.com.hk

*Chief Economist, Cross-Country Analysis Emerging Markets*

**Sonsoles Castillo**

34 91 374 44 32

s.castillo@grupobbva.com

**Mario Nigrinis**

Mario.nigrinis@grupobbva.com.hk

**José Ramón Perea**

34 91 374 72 56

jramon.perea@grupobbva.com

**Soledad Zignago**

34 91 537 37 35

soledad.zignago@grupobbva.com

## BBVA Research

*Group Chief Economist*

**José Luis Escrivá**

*Chief Economists & Chief Strategists:*

*Regulatory Affairs, Financial and Economic Scenarios:*

**Mayte Ledo**

teresa.ledo@grupobbva.com

Financial Scenarios

**Daniel Navia**

daniel.navia@grupobbva.com

Financial Systems

**Ana Rubio**

arubiog@grupobbva.com

Regulatory Affairs

Economic Scenarios

*Spain and Europe:*

**Rafael Doménech**

r.domenech@grupobbva.com

Spain

**Miguel Cardoso**

miguel.cardoso@grupobbva.com

Europe

**Miguel Jiménez**

mjimenezg@grupobbva.com

*Emerging Markets:*

**Alicia García-Herrero**

alicia.garcia-herrero@bbva.com.hk

Cross-Country Emerging Markets

Analysis

**Sonsoles Castillo**

s.castillo@grupobbva.com

Pensions

**David Tuesta**

david.tuesta@grupobbva.com

Asia

**Stephen Schwartz**

stephen.schwartz@bbva.com.hk

South America

**Joaquín Vial**

jvial@bbva.cl

Argentina

**Gloria Sorensen**

gsorensen@bancofrances.com.ar

Chile

**Alejandro Puente**

apuente@grupobbva.cl

Colombia

**Juana Téllez**

juana.tellez@bbva.com.co

Perú

**Hugo Perea**

hperea@grupobbva.com.pe

Venezuela

**Oswaldo López**

oswaldo\_lopez@provincial.com

*Market & Client Strategy:*

**Antonio Pulido**

ant.pulido@grupobbva.com

Equity and Credit

**Ana Munera**

ana.munera@grupobbva.com

Interest Rates, Currencies and

Commodities

**Luis Enrique Rodríguez**

luisen.rodriguez@grupobbva.com

Asset Management

**Henrik Lumholdt**

henrik.lumholdt@grupobbva.com

*United States and Mexico:*

**Jorge Sicilia**

j.sicilia@bbva.bancomer.com

United States

**Nathaniel Karp**

nathaniel.karp@compassbank.com

Mexico

**Adolfo Albo**

a.albo@bbva.bancomer.com

Macro Analysis Mexico

**Julián Cubero**

juan.cubero@bbva.bancomer.com

## Contact details

**BBVA Research**

43/F, Two International Finance Centre

8 Finance Street

Central, Hong Kong

Tel. +852-2582-3272

Fax. +852-2587-9717

economicresearch.asia@bbva.com.hk

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