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Economic Watch

US

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Economic Analysis

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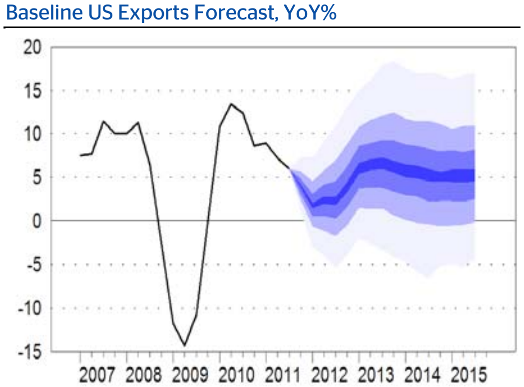
Crisis Channels: Trade, Financial and Confidence

Outlining transmission channels to the US from Europe

- **In a risk scenario, we expect exports to drop by $100bn or 0.7% of GDP**
- **Overnight swap spreads would increase substantially, but not more than in 2008**
- **Anticipated shocks tend to have different effects than unanticipated shocks**
- **The US banking system will receive help from its ample excess reserves**

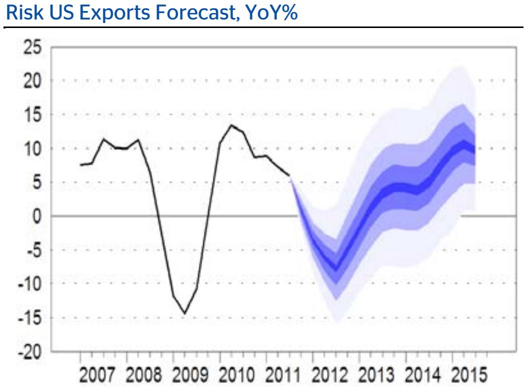
Forecasting the effect of crisis on the order of a collapse of the Euro or a major sovereign's debt default is never simple. At first glance, we know that a European crisis can damage US economic growth directly via trade, financial and confidence channels. However, in addition to these direct channels, a European crisis can also indirectly impinge US economic growth through declines in equity prices (wealth effects), increasing uncertainty (reducing business confidence) and a global tightening of credit conditions. In this brief, we focus on two direct linkages: the likely effect of a European crisis on US exports and on dollar funding conditions in financial markets. However, we also outline some likely results in the numerous indirect transmission channels of a European crisis to the US. With regard to trade, recent studies have demonstrated a link between financial conditions and the sharp drop-off in world exports following the collapse of Lehman Brothers. Financial crises tend to be associated with capital losses and deleveraging. Naturally, both of these forces restrict the extension of trade credit, which then restricts trade itself. Aside from a balance sheet effect on banks, the balance sheets of individual firms are also damaged by a financial crisis, and a damaged firm balance sheet results in less borrowing ability. The Lehman incident also disrupted the functioning of money markets, which also serve in the settlement of trade credit. Overall, another strong rise in the volatility index – a general sign of poor financial conditions and uncertainty – can trigger another fall-off in US exports as orders are canceled, firms encounter payment issues, or currencies fluctuate wildly.

Chart 1
Baseline US Exports Forecast, YoY%



Source: BBVA Research

Chart 2
Risk US Exports Forecast, YoY%

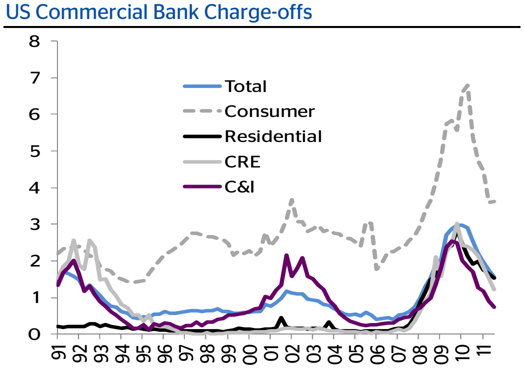


Source: BBVA Research

For an estimate of what effect this channel may have on the United States, we turn to our model of US exports, which incorporates world GDP growth and the volatility index as explanatory factors. In a baseline scenario where world GDP grows around 4% in 2012, the volatility index returns to a smooth value of 17.5, and the US real effective exchange rate remains flat, we expect US exports to grow at an average quarterly YoY rate of 6.5% in 2011 but slow to 2.7% in 2012. In particular, the second half of 2012 should witness better quarterly YoY rates of growth in US exports than the first half.

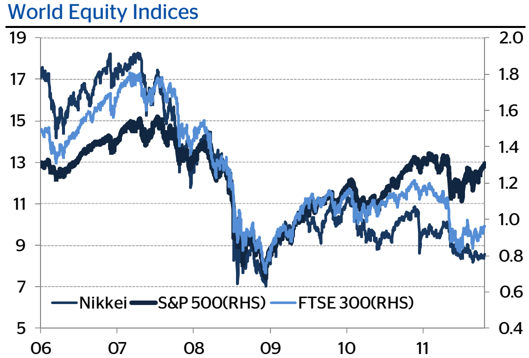
In the risk scenario, we utilize the Federal Reserve's volatility index risk scenario from the 2012 Capital Plan Review in conjunction with our own customized risk scenarios for the US real effective exchange rate. The US real effective exchange rate increases moderately as a result of flight to safety. The Yen may also revisit some flight to safety flows, but we believe the majority of the flows will be directed to the US. The Fed's risk volatility index crests at a record high of 90 and then only gradually returns to normal levels by the end of 2014. Our model generates a risk scenario for world GDP, which grows at an anemic rate of 1.4% in 2012 and then grinds at a standstill rate of 0.5% in 2013. In the event of a European crisis, we believe the overall path of exports would decline more gradually than during the Lehman Brothers crisis. A European crisis would be a long, drawn-out affair, whereas the Lehman Brothers episode represented a sudden stop to the machinery of international trade. As such, we expect an average quarterly YoY growth rate of -3.5% in 2012 and 0.4% in 2013 of US exports. We estimate that US exports would decline by $100bn as a result of a European crisis between 2011Q4 and 2012Q4, which is 0.7% of 2011Q3 real GDP. This last figure is notable from the standpoint of the fragility of the US recovery, which leaves the US susceptible to shocks from the trade channel.

Chart 3
US Commercial Bank Charge-offs



Source: Federal Reserve

Chart 4
World Equity Indices



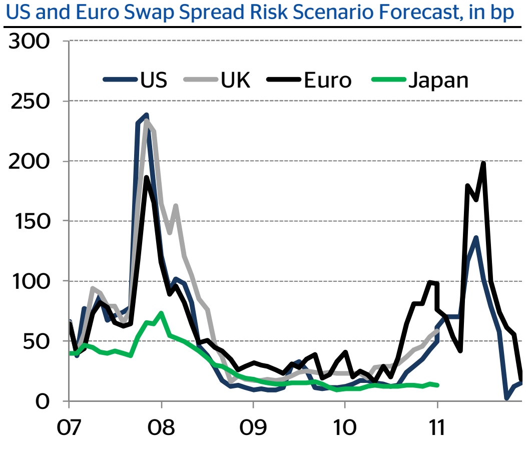
Source: Haver Analytics

Turning to the financial system, we regard the US banking system as in a defendable position to absorb the shock of a European crisis is a result of massive liquidity injections from the Federal Reserve and thorough, objective and credible capital assessment exercises from regulators. Although different regulators did not foresee the crisis building, their response to capital levels of bank holding companies established routines and processes that fortified the system overall, starting with the Supervisory Capital Assessment Program and more recently with a quarterly stress testing regime. As we have discussed previously, US commercial banks hold ample liquidity and huge excess reserves at the Fed. Over time, US commercial banks have also effectively transitioned to a funding regime away from short-term liabilities like commercial paper and medium-term notes and more towards the stability of retail deposits. US commercial banks' charge-off and recoveries continue to improve, although mortgage-related asset quality indicators are generally holding up more widespread gains. Given still-high delinquency rates for residential mortgages, a new shock to home prices could tip off another stress even in the US banking system. However, with home prices already extremely battered, this outcome seems less potentially hurtful, although it remains a possibility.

In terms of the potential for financial contagion, one rationale in favor of less drastic pass-through from a European crisis is that this issue is already known to the market. The unexpected nature of Lehman Brothers' collapse certainly propagated the crisis in 2008, whereas many investors have already pared back their exposure to Europe. However, the total exposure of financial claims and default protection is a source of potential concern. As we have discussed previously, the Bank for International Settlements (BIS) reports that the United States' exposure to troubled European countries could total $302.1bn, excluding foreign claims. A major portion of the indirect exposure is related to sovereign and bank (Credit Default Swap) CDS claims: nearly 69% of the United States' exposure is concentrated in derivatives, credit claims, and extended guarantees. The US indirect exposure is three times the UK's and seven times greater than Japan's. Additionally, the losses associated with a claim on a CDS are different in regards to precipitating factors in the event of a financial crisis. The ultimate impact on the CDS holders will depend on the debt restructuring terms agreed upon by the EU participants.

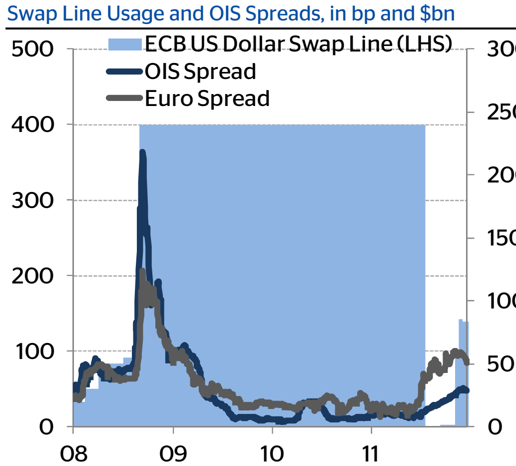
Currency or dollar funding is also a major transmission channel of a European crisis. During a global liquidity crisis, counterparty risk and uncertainty grows so large that markets cease to extend short term credit. In turn, banks that need access to short-term liquidity are forced to fund positions at a significant cost or short-sell at a loss. Research shows that capricious short-selling activity can accelerate a liquidity crisis by producing equity sell-offs. Once short-term funding levels reach a terminal rate, as was the case in 2008, banks decide to hoard cash in anticipation of systemic failure. Thus, extreme liquidity events can disrupt both credit and equity markets. In 2008, the self-fulfilling cycle jettisoned the overnight swap rate to 207.5bp, a 139% increase over the closing spread on September 12, 2008. Given successive episodes of market doubt over Europe, today's funding activity is subdued and spreads elevated, but market levels are not suggestive of a Lehman event. In the event of an announced Italian debt restructuring or further complications in private German debt funding, there could be reacceleration in OIS spreads.

Chart 5
US and Euro Swap Spread Risk Scenario Forecast, in bp



Source: BBVA Research

Chart 6
Swap Line Usage and OIS Spreads, in bp and $bn



Source: BBVA Research

The interconnectivity of financial systems allows for enhanced liquidity, but also generates collateralized risk and thus makes dollar funding markets susceptible to volatility swings of other regions and currencies. As such, central banks, in coordinated planning efforts, have acted to decrease the probability of a doomsday funding scenario involving a 100+ swap bp increase and systemic dollar funding shock like that of 2008. After the announcement of a coordinated effort to extend dollar liquidity to central banks, the Euro swap spread declined 8.4% after reaching a high on December 1st. If warranted, the central banks announced they would extend the swap lines in other currencies including the Swiss Franc, Yen, and Euro. This will aid the financial system during a crisis.

To capture some of the dynamics discussed above, we construct a scenario based on event analysis, which tries to isolate the driving factors of the Lehman event and apply them to a baseline model consistent with the current global economy. The baseline scenario assumes greater market awareness, thus decreasing collateralized currency funding risk, which results in an average overnight Euro swap spread of 98.2bp — Euribor/Euro Swap — and a more moderate average of 55.7 for dollar swap spreads — LIBOR/US Swap. This scenario also incorporates a continuation of BBVA's baseline forecasts for the applicable rates, and a European slowdown, moderate volatility, and improved domestic growth. Therefore, spreads remain high throughout 2012 with only slight reversion to the long-run trend. Conversely, a risk scenario would involve high volatility, a severe European contraction and deteriorating domestic growth prospects. In the event of a risk scenario, the Euro and US swap spreads would average 21.5 and 23.3bp above the previously discussed spread, respectively. This incorporates the secondary nature of a shock to European funding to the dollar and the comparatively lower interbank rate — LIBOR V. EURIBOR. Our model does not measure the impact of an exogenous market dependency on the dollar, thus a strong market dependency would increase the upside risk to the US dollar funding rate. It is also important to note that funding between even the largest banks is not uniform. The riskier, less capitalized European banks could face greater currency funding costs if the contraction reaches levels of 2008.

Bottom line: Channels to watch

Of the trade, financial and confidence channels outlined above, we easily see that many of these factors are interrelated. Confidence deflects from the ability of one institution to raise money from another institution just as much as it deflects from a business' ability to make plans for the future. This in part reflects the coordination failures that have historically plagued economies and the important role of reducing volatility on the long-run potential growth rate. Indirect channels may also multiply. For example, US corporations' sales abroad could be negatively affected by a European crisis. Similarly, foreign direct investment to the US, compounded by a global tightening of credit conditions from European deleveraging, could similarly detract from US GDP. The sum total effect on the US economy depends on the combination of direct and indirect transmission mechanisms in a European crisis scenario. With regard to direct effects, we believe the effect of a European crisis would result in a $100bn drop in US exports. We also believe that overnight funding spreads would increase substantially, but not match the highs of the Lehman Brothers era.