Economic Watch

EAGLEs

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Economic Analysis

Emerging Economies
Chief Economist
Alicia García-Herrero
alicia.garcia-herrero@bbva.com.hk

Cross-Country Emerging Markets Analysis
Chief Economist
Álvaro Ortiz
alvaro.ortiz@bbva.com

Senior Economist
David Martínez Turégano
dmartinezt@bbva.com

Central bank balance sheets in EAGLE countries also growing fast but different composition matters to spell out risks

- **A significant increase of central bank (CB) balance sheets is a distinctive feature of the world economy since the global crisis**

  The balance sheet of CBs virtually doubled in EAGLE countries in the period between 2006 and 2011 while it actually tripled in G7 economies. However, since emerging market economies have been growing much faster than G7 ones, the relative size of their CB balance sheets (that is over GDP) increased only 3 percentage points as opposed to as much as 10 percentage points in the developed world.

- **Furthermore, central banks from emerging markets seem to have tamed their balance sheet expansion since 2009 while those in developed countries have not.**

  CB assets over GDP have declined on average for the EAGLEs since 2009, especially in China and Russia, where the strong expansion clearly started before the crisis. Brazil and Turkey, however, follow the pattern of the developed world, continuously increasing CB balance sheets.

- **However, drivers of CB balance sheet growth differ massively: domestic assets are behind the growth of developed CBs and reserve accumulation is the key determinant for emerging markets**

  Quantitative easing through securities purchase and liquidity injections has been behind the FED's balance sheet expansion as well as that of the ECB and the Bank of England. Foreign assets have been the driver in the EAGLEs, growing above GDP especially in China, followed by Brazil and Turkey.

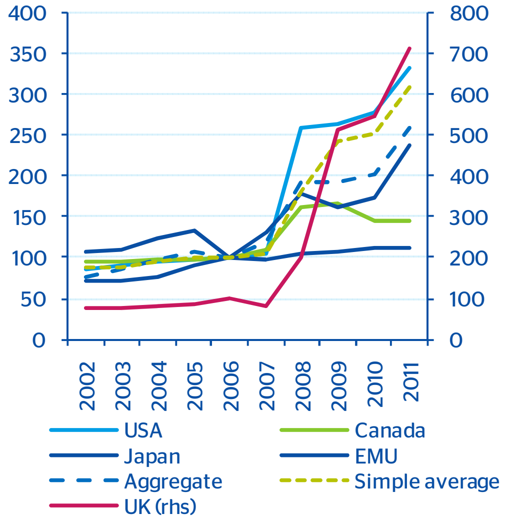
- **Increasing central bank balance sheets brings risks, not limited to the inflation side**

  A strong expansion of the monetary base has been associated with higher inflation in Russia and Turkey. In the same vein, price pressures seem to be over the norm in Brazil, Indonesia and India. However, concerns go beyond inflation. A clear one is valuation losses on the massive amount of reserves accumulated by some CBs.

Expansion of central bank balance sheets during the crisis also in the EAGLEs but certainly more moderate

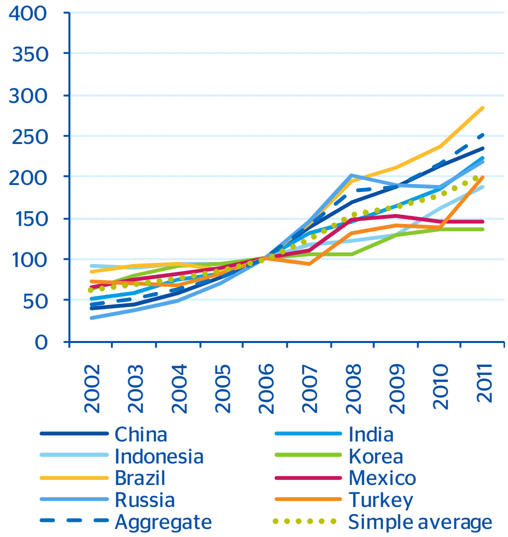
The recent global financial crisis triggered a rapid expansion of monetary policy to cope with the confidence crisis. In the case of developed economies, central banks rapidly reached the zero bound for interest rates but it does not seem to have been enough to revive the economy. The most remarkable case of a monetary expansion, when looking at growth numbers, is that of the Bank of England (BoE), which increased its balance sheet by more than 600% between 2006 and 2011. In the same vein, the Federal Reserve more than tripled the volume of its assets and the ECB more than doubled it (see Charts 1 and 3). When looking at it in relative terms, the three CBs have added more than 12 of GDP to their balance sheet during this period (see Chart 4).

Chart 1
Central bank balance sheets in developed economies (index 100 = 2006)



Source: IMF and BBVA Research

Chart 2
Central bank balance sheets in the EAGLEs (index 100 = 2006)



Source: IMF and BBVA Research

Emerging economies were not immune to the global turmoil, especially in 2009. However, due to better fundamentals and the different nature of their crisis (stemming from external factors), contagion has been limited except for the case of Eastern Europe countries inside the EU.

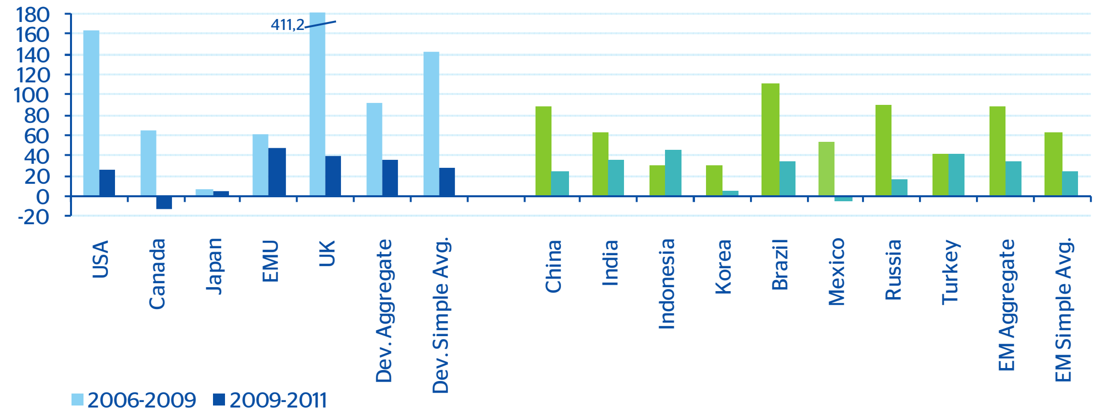
Notwithstanding this milder impact, CB balance sheets have more than doubled on average in the EAGLEs since the beginning of the crisis (see Charts 2 and 3). This increase has not been homogeneous. In Brazil; expansion between 2006 and 2011 has been even larger than the one recorded for the ECB. Figures for CBs from China, India and Russia are close to the European reference, with a cumulative growth of around 125%, followed by Indonesia and Turkey, where assets of the monetary authority have almost doubled. In contrast, CBs from Mexico and Korea present the lowest increase in their balance sheet, although still in the 25-50% range.

However there are important differences between the monetary expansion of developed and emerging economies:

- When measured as a ratio to GDP, the average expansion in the EAGLEs has been only around 3 percentage points between 2006 and 2011, less than a third of the increase than in the G7 countries (see Chart 4). Only Brazil shows a distinctive expansion over the whole period, increasing the ratio by 14 percentage points, which is comparable to those in the G7 countries. China has the second largest increase with more than 5 percentage points. Turkey and Russia follow with around 3 percentage points. India and Mexico increased the ratio only marginally, and Korea and Indonesia even reduced it.
- Another key difference is that the CB expansion has generally not been maintained in emerging markets after 2009 while it has in the developed countries. Brazil, Turkey and

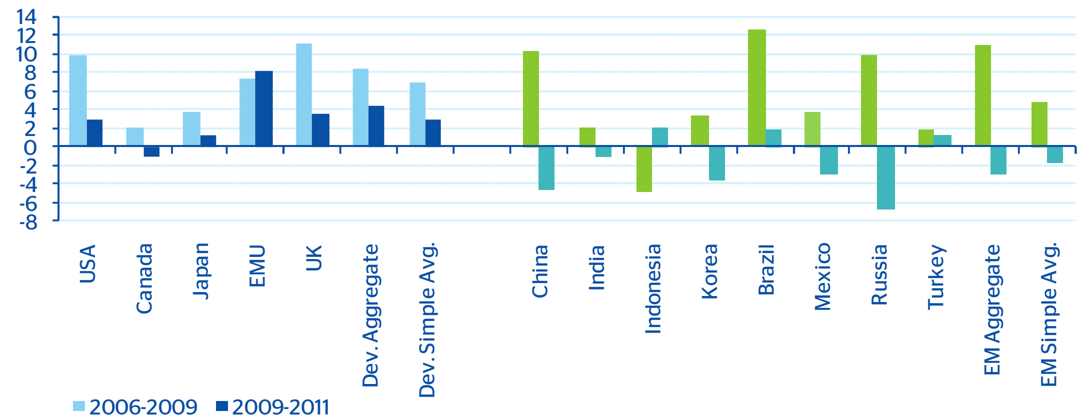
Indonesia are outliers, with a still strong expansion after 2009 and an increase in the ratio to GDP.

Chart 3
CB balance sheets in G7 economies and the EAGLEs (% change between 2006 and 2011)



Source: IMF and BBVA Research

Chart 4
CB balance sheets in G7 economies and the EAGLEs (change in ratio over GDP between 2006 and 2011; percentage points)



Source: IMF and BBVA Research

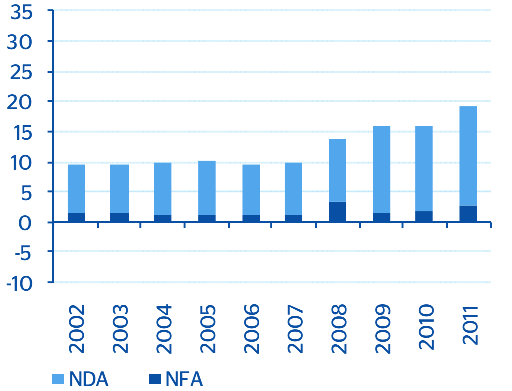
The drivers of monetary base growth differ between the G7 economies and the EAGLEs

A look at the CB balance sheets easily confirms this. By analyzing the CB balance sheets we can observe the different behavior of net domestic assets (NDA) and net foreign assets (NFA), there are some salient features (see Charts 5, 6, 8 and 9):

- CBs of the G7 economies have increased NDA by 7 percentage points of GDP between 2006 and 2011 while NFA have remained relatively flat. The exception is the ECB, but the reason is basically the increase in gold prices, which has had a positive valuation effect on its NFA since 2009.
- Instead, during the 2006-09, most of the EAGLEs experienced an increase in their negative NDA balance followed by some opposite adjustment after 2009 stemming from expansionary monetary policies across the board. In fact, NDA to GDP increases in all countries except for Indonesia and Mexico.
- Contrary, the bulk of the increase in the monetary base between 2006 and 2011 in the EAGLEs has been associated with higher NFA. This is especially true during the pre-crisis period where

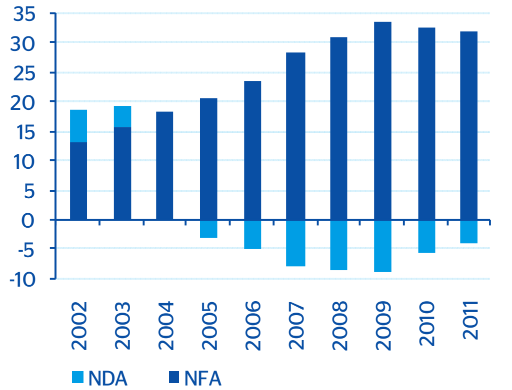
large surpluses in the balance of payments (see Chart 7), as well as the recomposition of international reserves, resulted in significant increases of NFA. This is the case of China (12 percentage points of GDP), Brazil (8pp) and Turkey (more than 4pp). Indonesia, Korea and Mexico also show a positive balance of around 2 percentage points of GDP, while no change is observed in Russia and a decline is recorded in India.

Chart 5
Net Domestics Assets (NDA) and Net Foreign Assets (NFA) over GDP: aggregate for CBs in G7 economies



Source: IMF and BBVA Research

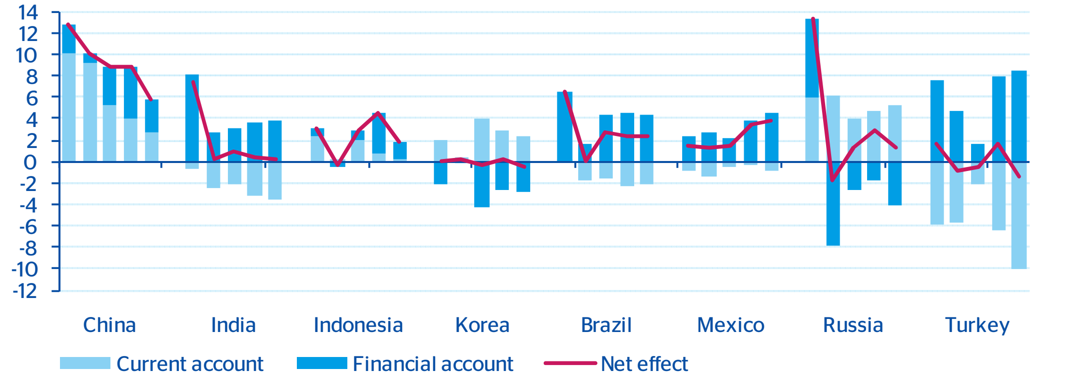
Chart 6
Net Domestics Assets (NDA) and Net Foreign Assets (NFA) over GDP: aggregate for CBs in the EAGLEs



Source: IMF and BBVA Research

As a summary, we can say NFA has been the main factor base changes in China, Turkey and Brazil, reinforced slightly by NDA expansion in the first two cases and partially offset by NDA contraction in the last one. For Indonesia and Russia the driving factor has been NDA, although in opposite directions. Finally, Korea, Mexico and India show confronting forces with marginal intensity and therefore a neutral balance.

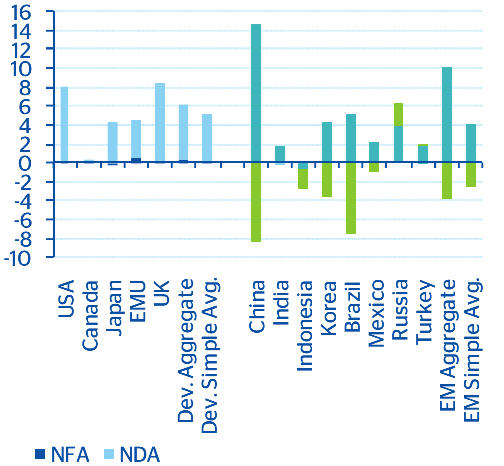
Chart 7
Sources of international reserves variation in the EAGLEs (as a percentage of GDP) (2007-2011)



Source: IMF and BBVA Research

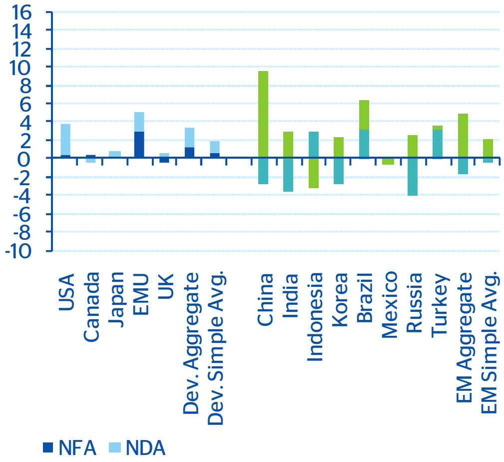
However, the effects of the crisis are also somewhat behind the CB balance sheet expansion in some emerging economies. Drivers of CB balance sheet movements of the EAGLEs changed since 2009, giving a prevalent role to NDA instead of NFA as a consequence of the impact of the global crisis. CBs generally reacted by expanding domestically their monetary base at the same time global adjustment was proceeding and reserve accumulation became less favorable (see Chart 7). This is the case of China, where NDA increased by almost 10pp of GDP, more than offsetting the relative decline in NFA, although the final impact was softened through higher reserve requirements. NDA also increased in India, Korea, Russia and Brazil, but only in the last case the net effect on the monetary base was positive, helped by also increasing NFA. The opposite has happened for Indonesia, with increasing NFA and declining NDA, while Turkey expanded the monetary base through reserves building. Finally, no significant changes have been observed for Mexico, where CB balance sheets changes has been more equilibrated.

Chart 8
Change in NDA and NFA over GDP of CBs between 2006 and 2009 (percentage points)



Source: IMF and BBVA Research

Chart 9
Change in NDA and NFA over GDP of CBs between 2009 and 2011 (percentage points)

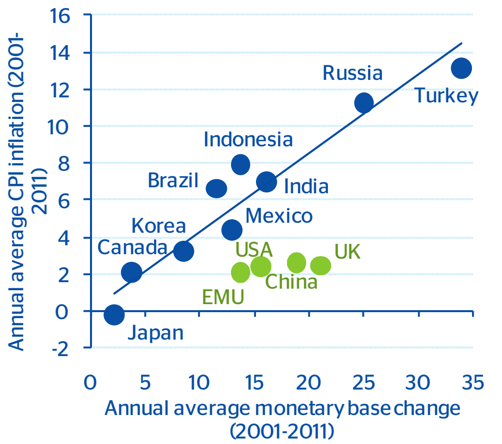


Source: IMF and BBVA Research

Strong correlation between monetary base expansion and inflation pressures, but also other risks on the table

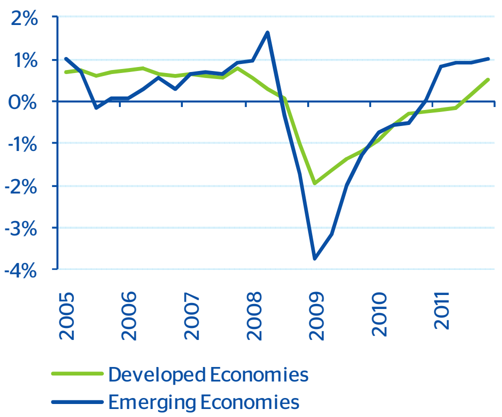
Rapid growth in CB balance sheets does entail some risks. The most obvious one is inflation is believe in inflation being a monetary phenomenon in the long run. Looking at the correlation between the expansion of the monetary base and inflation, we find it is quite high for many countries in our sample, especially in the EAGLEs' universe but the correlation breaks for the US, the EMU and the UK (see Chart 10).

Chart 10
Change in monetary base and inflation between 2001 and 2011 (in percentage)



Source: IMF and BBVA Research

Chart 11
Money velocity gaps (2005-2011) (% deviation from trend)



Source: IMF and BBVA Research

Why this? The main answers lie on the different performance of two ingredients for money to finally feed inflation, the size of output gaps and different patterns in money velocity:

- Still negative output gaps in developed economies are preventing money to feed into inflation but closing or positive gaps in emerging economies poses more risk.
- The sharp drop in money velocity during the 2008-09 period (see Chart 11) of the crisis helped to buffer inflationary pressures but it is now reversing. This is especially true in the case of the emerging economies where velocity gaps (M2/GDP ratios relative to the 2000-11 trend) are now positive and similar in size of the pre crisis levels. Velocity gaps are also recovering in industrial countries although at a slower pace and still below pre-crisis levels.

All in all, the margin to keep CB balance sheet expansion without feeding inflation is larger for developed markets. Still negative output gaps and a more moderated recovery in the velocity of money means lower risks for developed markets. In the case of the EAGLEs, both economic activity and money velocity are recovering faster, which should enhance CBs to maintain a more prudent attitude.

But inflation pressures are not the only risk stemming from rapid CBs balance sheet expansion. In the case of developed economies, the purchase of assets, private or public, as well as long term liquidity injections raise concerns on the value of the CB claims. Deterioration of collateral, price changes and even default episodes could erase the capital base of CBs, severely damaging its credibility. Additionally, large purchases of securities over a long period of time can distort their pricing, especially if there is no clear exit strategy. The CBs could end up being an essential intermediary.

Valuation issues are also a concern for the EAGLEs in a different way. First, sharp changes in domestic assets or foreign assets can result in distortion in liquidity triggering credit growth beyond fundamentals that can be later difficult to correct. Second, efforts to correct the resulting domestic imbalances (excess of credit) can result in increasing shadow banking as the taxation of the official credit creates incentives to move away. Third, sterilization to offset reserves accumulation could entail inefficiencies in liquidity allocation finally crowding-out of private sector loans through the issuance of CB bonds[1]. Finally, there is a huge valuation risk related to the sharp increase in NFA in many of the EAGLE countries, especially China.

[1] "Why central bank balance sheets matter", Jaime Caruana, Keynote address at the Bank of Thailand-BIS conference on "Central bank balance sheets in Asia and the Pacific: the policy changes ahead", December 2011. Available at www.bis.org/speeches/sp111216.pdf.