

Cross-Country Emerging Markets Analysis

Economic Watch

Hong Kong, 14 February 2011

Economic Analysis

Who are the EAGLEs?
Driving Global Growth for the Next
Ten Years



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Foreword

The increasing importance of emerging markets (EMs) is no longer a futuristic idea but a measurable fact. Its implications have the potential to bring about a structural change in the global economy. Notwithstanding the fears that this structural change may provoke in the industrial world, we should not forget that it also brings the promise of a general improvement in development and a fair distribution of resources and opportunities for all humanity.

But there are important challenges too. Unfortunately, resources are limited and their rational use will require skillful management. A reformulation of international governance, and the international financial architecture in particular, should remain a priority. On a deeper level, the scope and conduct of human relations across the world will probably change, driven by growing sense of insertion and power in the emerging markets.

At BBVA Research we are committed to the task of preparing for this change, and we view the elaboration and dissemination of information that economic agents will need as an integral part of this commitment. Our EAGLEs initiative ("Emerging and Growth-Leading Economies") goes beyond this report and it is part of a longer term effort to join relevant analysis of EMs economies and create communications channels to share our accumulated expertise and insights.

Introduction

What once was considered wishful thinking has become by now a commonplace: no longer it is a surprising statement to claim that the pattern of world growth is experiencing a rotation towards EMs. Nowadays, no global investor can do without considering EMs in their investment decisions.

But we are far from understanding fully what this shift implies. The debate is still wide open among investors, policy makers and the general public. In this report, we set ourselves three objectives related to the EMs insertion in the global economy.

First, in chapter 1, we quantify the role these countries will play in the global economy. As we shall explain in the report, we think the focus should be placed on the contribution of EMs to global growth or, in other words, incremental gross domestic product. In accordance with this criterion, we introduce a number of countries whose contribution to global growth in the next ten years will be substantial. We call these groups EAGLEs, "Emerging and Growth-Leading Economies". Our grouping compares rather positively with existing ones for several reasons: First, it is based on objective criteria, higher contribution to global growth than the average of the G6 (ie., the G7 countries except the US). Second, it is dynamic, i.e., countries can be dropped from the group or be included in the group depending if there are changes in their growth prospects. Third, it is not futuristic but rather concentrates on the next ten years. We do think that most of the trends we consider in this report will continue shaping the world economy beyond that point, but for most economic agents decisions will not be taken on the basis of something that will happen as far as 2050, which has been the norm for studies on the future of emerging countries.

Our second objective with the EAGLEs' analysis is to explore the potential opportunities created by this rotation in the sources of global growth. Chapter 2 is devoted to this subject. Here, we will highlight how it tends to favour structural shifts in valuations and final demand, relevant for portfolio investors and corporate strategic decisions, respectively. In view of these structural shifts, we argue that investors would be better off by "thinking outside of the box" in terms of how they allocate their resources and how they position their bets.

Our third and final objective is to quantify objectively the risk dimension of this rotation. The fact that "emerging" does no longer mean "less secure" is receiving wider and wider acceptance, but it still requires a quantification if we are to properly measure opportunities against their associated risks. Our analysis on chapter 3 dispels some common misconceptions about the risks involved in forecasting the growth of EMs, but it also highlights the particular challenges for some countries if they are to develop their full long-term potential.

The arithmetic of a rotating world

First factor: a persistent gap in growth rates

According to our forecasts for the next 10 years, growth in the emerging world will outpace that of developed countries by around 4 percentage points. This is in line with the experience of the last decade, after considering the impact of the financial crisis.

Before going into the specific details of this forecast, several clarifications should be considered when judging whether this gap is large or small. It is a common misconception that, the growing importance of EMs is only due to the collapse of the developed economies after the great financial crisis started in 2007. It is not. In fact, this gap is based on a forecast of growth for the developed countries for the next 10 years slightly better than what they actually delivered in the last decade, after taking into account the impact of the crisis (chart 1). That said we do expect a slowdown of developed economies of around 1pp on average compared with the cyclical highs of 2003-2007 growth. For the EMs, the reduction is at around 2pp (chart 2).

The impressive growth performance of China, together with its large size, accounts for around one quarter of the gap. However, excluding China, the growth differential is still expected to be very substantial, at around 3pp. While China is clearly in a league of its own - and only India can expect to play in that league in the future -, the differences between the growth performance of Brazil and Russia and the remaining EMs are not really substantial.

The underpinnings of this growth gap, on the other hand, are firmly based on the standard sources of economic growth. Our GDP growth rate forecasts are based on short-term drivers and long-term factors.

Longer term GDP forecasts are based on production function estimates following Domenech, Estrada and Gonzalo-Calvet (2008). The inputs to estimate such production functions are based on deep econometric work but also the expertise of our local analysts (see box 1). Our methodology takes into account demographic trends –corrected to account for structural changes in working age population and participation rates– and capital accumulation (based on forecasts of investment rates). The degree of detail is different across countries but this is unavoidable due to data limitations. This decomposition allows estimating total factor productivity as a residual, which we then model using time series and adjust them based on institutional quality and impact of the crisis on each country's growth model taking advantage of our local economist teams. This exercise results in several key conclusions.

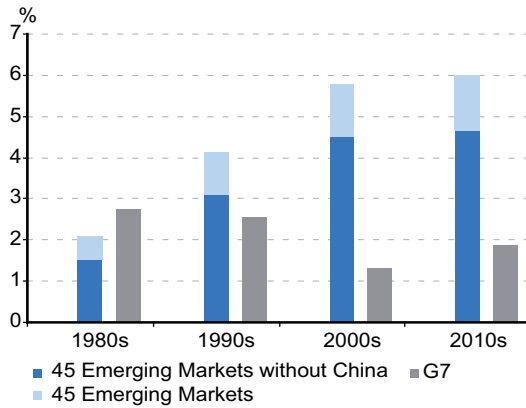
A significant fraction of the differences in long term growth between emerging and developed countries can be explained simply by the differences in their population growth prospects, the well known “demographic bonus” of EMs (chart 3). Taking into account the initial difference our estimates for capital accumulation and total factor productivity are not very different, at least on average. In fact, the estimates for EMs incorporate only a moderate acceleration in capital accumulation relative to the rates observed in the last ten years (chart 4), which we think is the likely result of increased availability of international funding and commodity resources. This aggregate analysis hides some important differences across countries which will be discussed later in this report, but the overall message is that no “major miracle” is required in EMs to achieve the growth rates we envision in our forecast.

Short-term forecasts are built using standard econometric techniques, and benefit from the local input of our research teams¹. Box 2 includes a brief description of our research capabilities and where our team are placed.

All in all, since this figures imply a realistic slowdown from previous breakneck speeds and do not pose too stringent conditions on their long-term potential, the question should probably not be what are the sources of EMs growth, but rather why would EMs fail to deliver a satisfactory growth performance. Sceptics should bear the burden of proof in this debate.

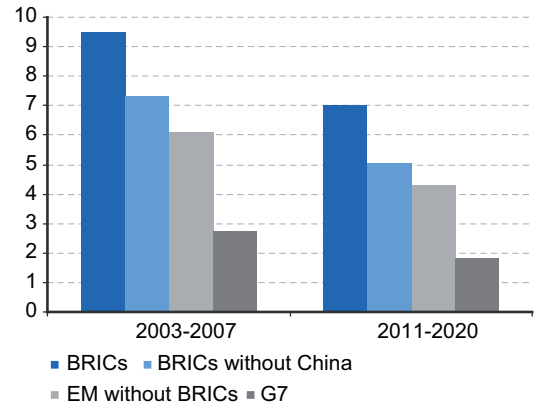
1: For countries where BBVA Research has no specific expertise we rely on a combination of other sources, like IMF, Consensus, Economist Intelligence Unit, etc.

Chart 1
GDP Growth by decade



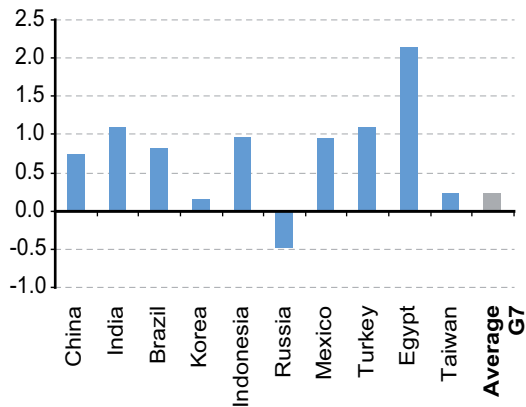
Source: BBVA Research and IMF

Chart 2
GDP growth: this decade vs. previous expansionary period



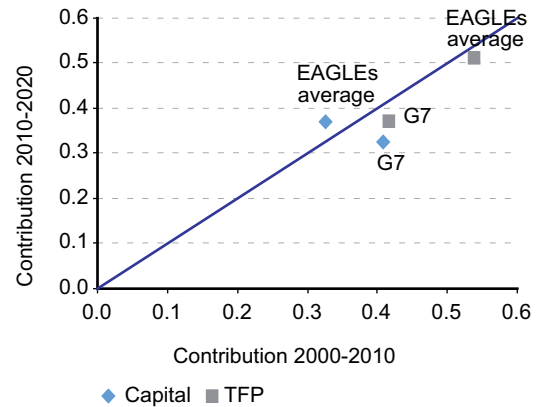
Source: BBVA Research and IMF

Chart 3
Contribution of demography and labor market dynamics to global growth



Source: BBVA Research and IMF

Chart 4
Contribution of capital and TFP to growth potential: this decade and previous



Source: BBVA Research

Box 1. The potential growth model

1. Estimation of total factor productivity based on a Cobb-Douglas productivity function which in logarithmic terms can be written as follows:

$$\ln(Y_t) = \ln A_t + a \ln K_t + (1-a) \ln L_t$$

where:

Y – represents the real GDP at market price

L – total number of hours worked

K – capital stock

A – the total factor productivity

2. Decomposition of total factor of productivity (TFP):

$$\ln A_t = \ln A_{hp,t} + \ln A_{hp,t}^c$$

3. The structural unemployment rate (u_t) or NAIRU:

$$\Delta^2 \ln W_t = \beta_1 + \beta_2 \Delta^2 \ln \left(\frac{Y_t}{L_t} \right) + \beta_3 \Delta^2 \ln TT_t + \beta_4 \Delta^2 \ln P_t^c + \beta_5 \Delta^2 \ln P_{t-1}^c + \beta_{u0} (u_t - \bar{u}_t) + \beta_{u1} (u_{t-1} - \bar{u}_{t-1}) + \varepsilon_t^\omega$$

where:

W – nominal wage

TT – the terms of trade

P^c – the consumer price deflator

ε_{wt} – i.i.d as $N(0, \sigma_{wu}^2)$

4. The estimation of the trend component of the number of hours worked (L)

$$\bar{L}_t = h \bar{t} (1 - u_t) \frac{\bar{N}_t^S}{\bar{N}_t^{16-64}} \bar{N}_t^{16-64}$$

where:

h - hours per worker

(1-u) - employment rate

N^S - active workers

N^{16-64} - working age population

5. Trend component of GDP:

$$\overline{\ln Y_{fp,t}} = \overline{\ln A_t} + a \ln K_t + (1-a) \ln (\bar{h}_t (1 - \bar{u}_t)) \frac{\bar{N}_t^S}{\bar{N}_t^{16-64}} \bar{N}_t^{16-64}$$

6. Output gap ($y_{fp,t}^c$):

$$y_{fp,t}^c = \ln Y_t - \overline{\ln Y_{fp,t}}$$

Box 2. BBVA Research geographic reach

BBVA Research emerging markets teams operate from locations in Asia and Latin America, with additional support from Madrid. In Latin America, BBVA Research has local teams in Mexico, Argentina, Peru, Colombia, Chile and Venezuela, employing a total of 58 economists with diverse backgrounds.

In Asia, a 10 member team is based in Hong Kong, with the support of economists in Beijing and Mumbai. Our global economics teams in Europe (10 economists) and the US (6 economists) also play a key role in the EAGLEs project.

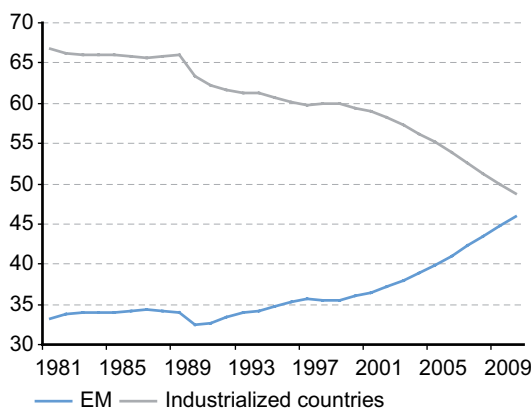
Second factor: a closing gap in current GDP size

It is an arithmetic truth that any difference in initial size will be compensated over time if the growth rate is higher and lasts enough. When the difference is as large as the one we are forecasting, that can happen very quickly, as has been the case during the last 20 years.

The EMs as a whole are by now 94% of the total GDP of the industrialized economies² and its ratio is expected to increase by 43pp in the next decade. It is important to account for the impact of China in this calculation. However, even excluding the Chinese economy, the remaining EMs has been narrowing the gap with the G7. In 2010 they accounted for 81% whereas back in 2000 they were only 59%. For the next ten years, we forecast this trend will continue and EMs without China will catch up G7 economies on year 2018.

Chart 5

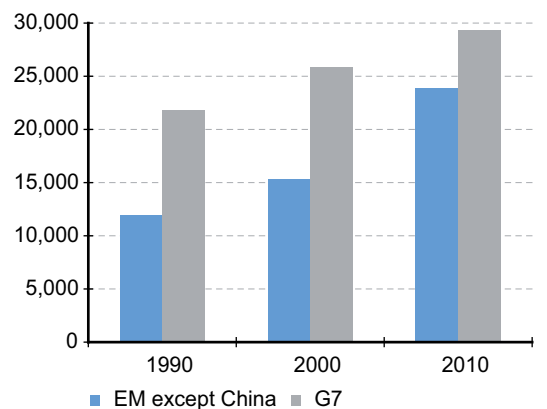
Share of World GDP PPP: emerging vs. industrialized economies



Source: BBVA Research and IMF

Chart 6

GDP PPP: all EM* except China vs G7**



* Emerging Markets: Other Emerging Markets excluding China
** G7: Canada, Germany, France, Italy, Japan, UK and US
Source: BBVA Research and IMF

Implication: incremental GDP or the contribution to world growth

The combination of a persistent gap in growth rates and a convergence in absolute GDP sizes has one unavoidable consequence: the contribution of EMs to world growth has exceeded that of developed economies consistently for the last 10 years. The EMs without China have been able to provide a larger impulse to world growth than the G6 (G7 economies excluding the US) for the last 12 years. In a word, the last decade marked the first time when this was consistently achieved by EMs and for all purposes that is a defining feature of its global ascension. The ever increasing importance of EMs for global growth is the key to understand the changing face of the global economy and correctly appreciate its implications.

To continue with the arithmetic analogy, a closer look at what defines the contribution of EMs to world growth is warranted. By definition, the contribution is simply the change in a country's GDP divided by the total change in world GDP. This number is not based exclusively on economic size today (GDP) or expected growth rates, but rather a combination of both. Using a simplifying notation (as the averages would be needed to take into account compounding effects), we can simply say that the change in GDP or "incremental GDP" is simply:

$$\text{Incremental GDP} = \text{GDP size today times average expected growth rate in the next 10 years}$$

² : These calculations are done in PPP terms. The industrialized economies include: Australia, Austria, Belgium, Canada, Cyprus, Denmark, Finland, France, Germany, Greece, Hong Kong SAR, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Malta, Netherlands, New Zealand, Norway, Portugal, Singapore, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the United States.

In a sense, incremental GDP gives an economically relevant summary of a country’s current weight in the world economy and how quickly it is expected to grow, effectively summarizing in one single figure a multidimensional concept. But the advantages go beyond the purely conceptual; in our view:

- First, incremental GDP is much more forward looking than GDP per se. This allows greater anticipation of trends. The case of China is a leading example of this. China did not overtake the average of the G7 in GDP PPP terms until year 2000, but it was contributing more to global growth much earlier than that, around 1991.
- Second, incremental demand is likely to be more relevant for new business opportunities. While difficult to quantify, incremental demand creates room for expansion without the need of fighting incumbents for existing clients. Given potentially large fixed costs of entry, this makes markets with larger absolute increases in demand more interesting destinations. This is particularly true for real investment. As the business environment becomes more competitive in stagnant economies, investors will usually pay a premium for accessing the easier and, ceteris paribus, more certain investment opportunities in growing economies. Thus lacklustre activity across the world offers a premium on those countries which are growing faster, even if their size is still not as large. We delve into this issue with deeper detail later in this report.

Introducing the EAGLEs

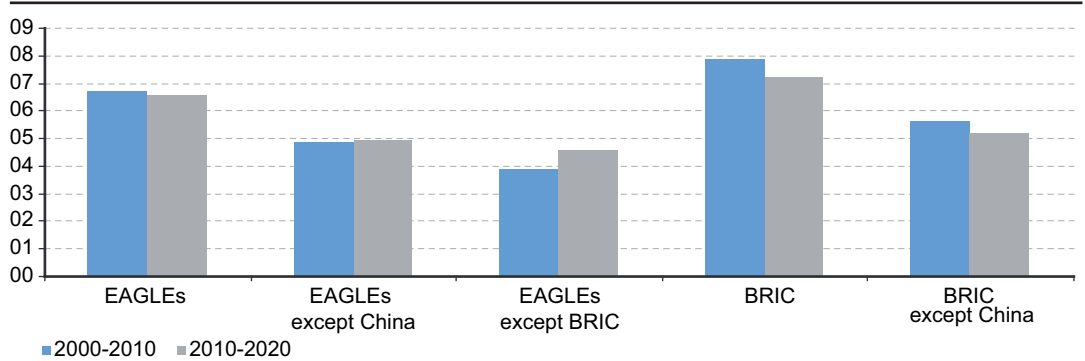
Since incremental GDP is the defining variable that signifies the growing importance of the EMs, we have used it as the basis for selecting the most relevant EMs in the next decade. The result is the EAGLEs group, the “Emerging and Growth-Leading Economies”. In defining this group, we have tried to avoid some of the pitfalls associated with past groups, such as the G7 or more recently the BRICs.

As a matter of definition, the EAGLEs group includes all the emerging economies whose contribution to World’s GDP in the next ten years is expected to exceed the average of the G6. In other words is the list of countries that will be relevant in terms of new generated business in the coming decade.

This becomes more evident when comparing the EAGLEs incremental GDP with other groups of EMs.

Chart 7

GDP adjusted by PPP: Growth rates by groups (%)



Source: BBVA Research and IMF

The main advantages of the methodology followed by BBVA Research are particularly geared to offer a relevant guidance to investors, updated constantly and based on facts, not fads (Table 1). In particular:

- First, instead of looking at economic size (BRIC and Next-11), population (Next-11) or even young population (CIVETS), which may be misleading and does not necessarily, determine market potential, EAGLEs focuses on the incremental GDP economies will generate instead, that is, their contribution to world growth.
- EAGLEs is a dynamic concept. It is updated each year on the basis of economic performance and changes in economic conditions, as reflected in BBVA Research forecasts. A static concept is employed in the BRICs, Next-11, CIVETS or other proposals.
- It is not a closed group and the concept is not linked to an acronym formed by a given set of countries. This will allow identifying key economies in the EMs universe and warn about potential “fallen angels” in advance.

- The selection is based on a shorter horizon - 10 years - than the ones considered in other country groups, ranging from 20 to 50 years. This horizon is more relevant for most investment decisions.
- Finally, the EAGLEs concept is more objective due to its defined cut-off. The criterion for inclusion is explicit. In order to become an EAGLE each country's expected incremental GDP in the next 10 years needs to be greater than the one anticipated for the average of the G6 economies.

Table 1

EAGLEs against the other economic concepts:

| BRIC (GS) | BBVA EAGLEs definition | N-11 (GS) | CIVETS (EIU, HSBC) |
|---|--|--|--|
| <p>✗ Based on absolute size</p> <ul style="list-style-type: none"> • Bigger does not necessarily determine market potential | <p>✓ Based on absolute growth</p> <ul style="list-style-type: none"> • Large enough size plus... • Fast enough growth | <p>✗ Based on population/GDP size</p> <ul style="list-style-type: none"> • Includes high population economies, which do not necessarily determine market potential | <p>✗ Based on young population</p> <ul style="list-style-type: none"> • Colombia, Indonesia, Vietnam, Egypt, Turkey and South Africa |
| <p>✗ Static concept</p> <ul style="list-style-type: none"> • Allows no anticipation: too much inertia • Too long horizon: at least 20 - 25 years • Why four countries? Subjective | <p>✓ Dynamic concept</p> <ul style="list-style-type: none"> • Anticipation: dynamic concept • Shorter horizon: next 10 years • Flexible number of countries: "Club admission" depends on performance | <p>✗ Static concept</p> <ul style="list-style-type: none"> • Some countries with political instability • Too long horizon between 20-45 years • Based on absolute size | <p>✗ Static concept</p> <ul style="list-style-type: none"> • Missing key economies (Mexico, Korea) • Several large economies are missing • No clear horizon from 2020 onwards • Average growth above 4.5% over 20 years |
| <p>✗ No clear cut - off</p> | <p>✓ Defined Cut- off: the G6</p> | <p>✗ No clear cut - off</p> | <p>✗ No clear cut - off</p> |

Source: BBVA Research

Who are the EAGLEs? Some surprising results

Our first forecasting exercise has identified ten countries that fulfill the criterion for inclusion, ranked by their contribution to world growth: China, India, Brazil, Indonesia, Korea, Russia, Mexico, Egypt, Taiwan and Turkey. During the next decade we anticipate the World's GDP to grow over 41 trillion USD adjusted by PPP (from around 70 trillion in the last decade) from which the EAGLEs contribution will exceed 50% whereas for the G7 will only reach 14% (see Chart 8).

China in a league of its own, but India can compare with the US

The three giant economies, China, United States and India, will lead the world in terms of levels and incremental GDP in the coming 10 years (see Chart 9). As mentioned earlier, China is on a league of its own. The country's contribution to total world growth will be expected to account for almost 30%, more than doubled the aggregated amount from the G7 countries and 2.4 times higher than the expected of the other three BRIC economies. Perhaps more surprising to some observers, India's incremental GDP is expected to match the one from the US, accounting for around 8.5% of the total (see Chart 10).

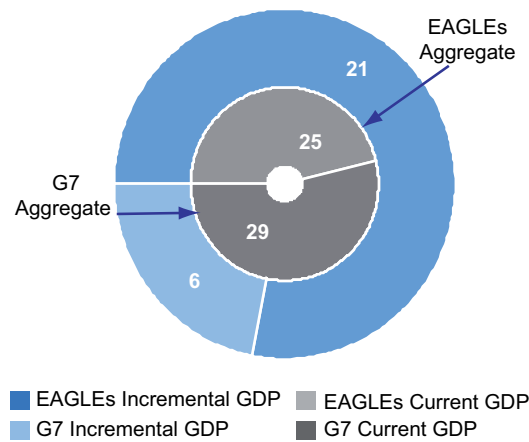
Indonesia and Korea are expected to contribute to world growth more than Russia

Our forecasts highlight some of the drawbacks of lacking an objective criterion for inclusion. As we have written in recent reports, the incremental GDP of Indonesia and Korea is expected to be larger than for Russia, despite the fact that neither of these two countries enjoys BRICs status. This is a clear case indicating the need to go beyond BRICs (Chart 11). In a similar vein, the recent decision to formally invite South Africa to join BRIC meetings appears clearly as politically motivated, if we consider that Egypt's contribution to world growth is expected to be substantially larger.

Other EAGLEs that will also keep player in the global growth

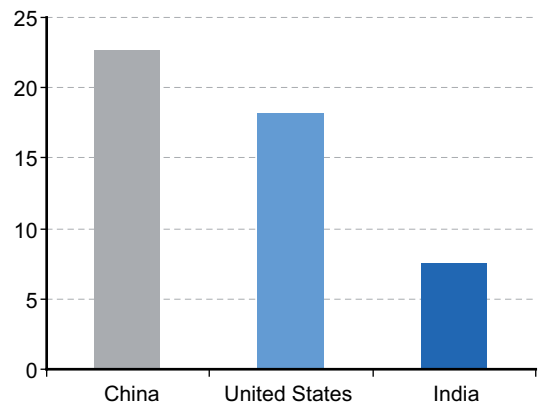
Following the surprising results expected for this decade, Brazil has a contribution to global growth larger than Japan. Similarly the contribution of Mexico would be higher than in Germany, while that of Egypt, Turkey and Taiwan would overcome the UK, Canada, France and Italy. Thus anticipated growth and business opportunities in these EMs are more dynamic than those in traditional developed economies (chart 12 and 13).

Chart 8
EAGLEs vs. G7: size and contribution to World's growth (2010-2020)



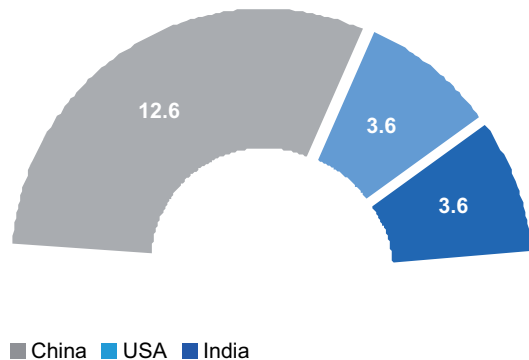
Source: BBVA Research and IMF

Chart 9
Dominant Economies in this decade: GDP adjusted by PPP USD Trillions in 2020



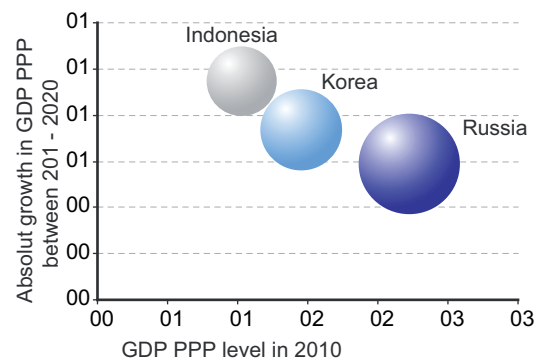
Source: BBVA Research and IMF

Chart 10
Dominant Economies in this decade: Incremental GDP in trillions USD adjusted by PPP between 2010 and 2020



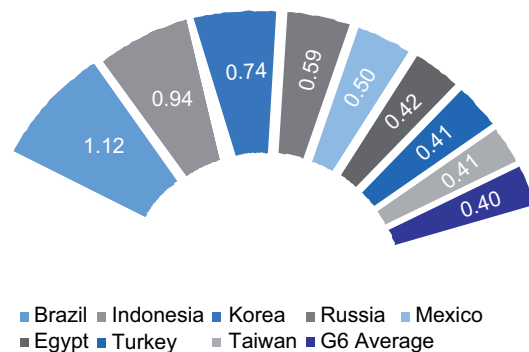
Source: BBVA Research and IMF

Chart 11
GDP adjusted by PPP: Beyond the BRICs



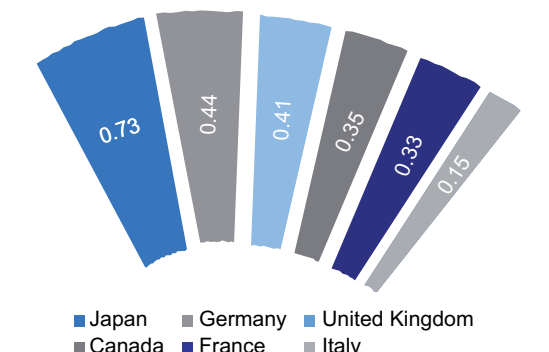
Source: BBVA Research and IMF

Chart 12
Other EAGLEs: Incremental GDP in trillions USD adjusted by PPP between 2010 and 2020



Source: BBVA Research and IMF

Chart 13
G6: Incremental GDP in trillions USD adjusted by PPP between 2010 and 2020



Source: BBVA Research and IMF

EAGLEs' Nest or Watch List

As previously mentioned EAGLEs is a dynamic concept. In fact, changes in growth prospects for the next ten years, especially if large, could end up in a country's dropping from the EAGLEs group, particularly if he is one of the smallest. The opposite is true for countries which are contributing quite substantially to the global economy but not yet as much as an EAGLE. Our interest for being as forward looking as possible in how we choose the relevant countries brings us creating a Watch list for the EAGLEs, which we call EAGLEs' Nest. The Nest is a list of countries which could get the EAGLEs status if their growth prospects for the next 10 years improve (see Table 2). Thus, there are 13 economies that will contribute to global growth less than the average of G6 economies but more than the smallest contributor of that group which happens to be Italy. The members are Thailand, Nigeria, Poland, Iran, Colombia, South Africa, Malaysia, Vietnam, Pakistan, Bangladesh, Argentina, Peru and Philippines (sorted by relevance to contribution to World's growth). We drop Iran from this list given the current sanctions it is facing from the UN and the consequences investors will face if dealing with this economy. As a group they are expected to contribute 8 percent to World's growth.

Table 2

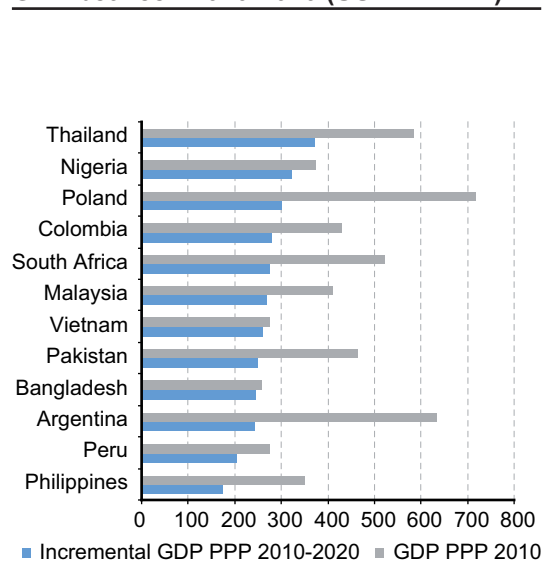
EAGLEs' Nest: GDP growth rates (%)

| Country | Average growth needed to become an EAGLE (2010-2020) | The difference between required and forecasted growth |
|--------------|--|---|
| Thailand | 5.5 | 0.3 |
| Poland | 4.4 | 0.9 |
| Nigeria | 7.5 | 1.0 |
| South Africa | 5.6 | 1.4 |
| Colombia | 6.6 | 1.5 |
| Argentina | 5.2 | 1.6 |
| Malaysia | 6.9 | 1.7 |
| Pakistan | 6.2 | 1.8 |
| Vietnam | 9.1 | 2.3 |
| Bangladesh | 9.4 | 2.7 |
| Peru | 9.3 | 3.4 |
| Philippines | 7.8 | 3.5 |

Source: BBVA Research (Forecast November 2010)

Chart 14

EAGLEs' Nest: GDP in 2010 and incremental GDP between 2010-2020 (USD PPP Bn)



Source: BBVA Research and IMF

Box 3. A detailed look at our forecasts and a comparison with other sources/methodologies

Table 3 presents the specific country forecasts which underlie our EAGLEs selection. Overall, our figures are slightly on the pessimistic side compared with other forecasters, either in the official or in the private sector. This is particularly clear in the

case of Russia where, as commented in the text, demographic factors are in our view likely to become a substantial drag on economic growth.

Table 3

GDP growth rates in PPP terms

| Country | 2000-2010 | 2010-2020 |
|----------------|------------|------------|
| Brazil | 3.7 | 4.5 |
| China | 10.3 | 8.7 |
| Egypt | 5.0 | 6.2 |
| India | 7.1 | 6.9 |
| Indonesia | 5.2 | 6.7 |
| Korea | 4.7 | 4.4 |
| Mexico | 2.3 | 3.1 |
| Russia | 5.4 | 2.6 |
| Taiwan | 4.0 | 4.7 |
| Turkey | 4.6 | 4.1 |
| EAGLEs | 6.7 | 6.6 |
| Canada | 2.2 | 2.4 |
| France | 1.5 | 1.5 |
| Germany | 1.1 | 1.6 |
| Italy | 0.6 | 0.9 |
| Japan | 1.0 | 1.7 |
| United Kingdom | 1.7 | 1.8 |
| G6 | 1.2 | 1.5 |
| United States | 1.9 | 2.3 |
| G7 | 1.5 | 1.9 |

Source: BBVA Research (Forecast November 2010)

In order to strength and prove the robustness of our exercise of selecting key emerging economies that will contribute the most to the World's growth in the coming decade, we have conducted a similar exercise using other forecasters' data. The robustness tests confirmed our expectations about the selection of key emerging economies where investors should turn their focus on in the next years. Using the IMF or EIU forecasts and comparing them to our own results we found that both are more optimistic than BBVA Research. With such strong results, as can be seen in the Table 4, we can boldly confirm that our dynamic methodology obtains the same results while using other

sources. In the case of the IMF forecasts, Turkey and Egypt fall slightly below our benchmark for Emerging and Growth Leading Economies, but not because of a pessimist outlook on these two economies, but a better expected performance for the average G6 economies. In gauging the total contribution for initial EAGLEs group that have been coined by BBVA Research, the forecasts for the 10 key emerging economies depicts that BBVA projections are around 10 percentage points lower than IMF and 4 percentage lower than EIU's estimations confirming our more moderate outlook in comparison to other forecasters for the coming decade.

Box 3. A detailed look at our forecasts and a comparison with other sources/methodologies (Cont.)

Table 4

Contribution to world's growth measured by other forecasters

| BBVA | | IMF | | EIU | |
|--------------------|--------------|------------|--------------|-------------------|--------------|
| Country | Contribution | Country | Contribution | Country | Contribution |
| China | 30.2 | China | 35.7 | China | 26.9 |
| India | 8.5 | India | 11.5 | India | 11.2 |
| Brazil | 2.7 | Russia | 2.7 | Russia | 3.6 |
| Indonesia | 2.3 | Brazil | 2.6 | Brazil | 3.1 |
| Korea | 1.8 | Indonesia | 2.3 | Mexico | 2.8 |
| Russia | 1.4 | Mexico | 1.9 | Indonesia | 2.0 |
| Mexico | 1.2 | Korea | 1.7 | Korea | 1.8 |
| Egypt | 1.0 | Taiwan | 1.2 | Taiwan | 1.6 |
| Taiwan | 1.0 | G6 average | 1.2 | Egypt | 1.4 |
| Turkey | 1.0 | Turkey | 1.1 | Turkey | 1.4 |
| G6 average | 0.9 | Egypt | 1.0 | G6 Average | 1.0 |
| BBVA EAGLEs | 51.1 | IMF | 61.8 | EIU | 55.7 |

Source: BBVA Research (Forecast November 2010)

In the context of measurement, there are two different ways of calculating the incremental GDP. The first includes the constant GDP in USD whereas the second is based on the Purchasing Power Parity condition. As depicted in Table 5, the ranking of countries is not highly affected while using USD as the basis of calculations. The significant change applies only to Egypt

which falls from the lists and is substituted by Thailand from the EAGLEs' Nest group. However, using either the PPP or USD dollar methodology we obtain similar rankings for Emerging Economies showing that the results hold while using different approaches.

Table 5

Rankings in USD vs PPP

| EAGLEs | | | | EAGLEs' Nest | | | |
|-----------|-----------------|-----------------|--------|--------------|-----------------|-----------------|--------|
| Country | Ranking GDP PPP | Ranking GDP USD | Change | Country | Ranking GDP PPP | Ranking GDP USD | Change |
| China | 1 | 1 | 0 | Thailand | 11 | 10 | 1 |
| India | 2 | 2 | 0 | Nigeria | 12 | 15 | -3 |
| Brazil | 3 | 3 | 0 | Poland | 13 | 12 | 1 |
| Indonesia | 4 | 4 | 0 | Colombia | 14 | 13 | 1 |
| Korea | 5 | 5 | 0 | South Africa | 15 | 11 | 4 |
| Russia | 6 | 6 | 0 | Malaysia | 16 | 16 | 0 |
| Mexico | 7 | 8 | -1 | Vietnam | 17 | 21 | -4 |
| Egypt | 8 | 14 | -6 | Pakistan | 18 | 22 | -4 |
| Taiwan | 9 | 9 | 0 | Bangladesh | 19 | 19 | 0 |
| Turkey | 10 | 7 | 3 | Argentina | 20 | 17 | 3 |
| | | | | Peru | 21 | 18 | 3 |
| | | | | Philippines | 22 | 20 | 2 |

Source: BBVA Research (Forecast November 2010)

The opportunities

Now more than ever, the changing shape of world growth dynamics has far reached implications for investment opportunities that can not be ignored by economic agents. Understanding these dynamics is not an easy task for several reasons. First, historical precedents offer limited guide to such a deep shift. At the same time, investors must see through the other shifts affecting financial markets and industries. Ongoing debates about the “new normal” in markets, regulation of banking activities or environmental issues are closely intertwined with the ascension of the EMs and their conclusions could have very significant effects on the final result of this process. Added to this difficulties is the fact that after the “dot com fiasco” and the “great moderation” that finally was not moderation at all, investors remain reluctant to realise a new world is evolving in which old rules don't apply anymore. Caution is well advised but it probably should apply more to the size of the changes we expect than to the direction of the long term trend. In that regard, some of those trends are in our view sufficiently strong to remain a lasting feature of the global economic and financial landscape for the next decade.

Corporate strategy

For corporate investors, positioning themselves in this new world is important but challenging. On the one hand, the growing role of EMs implies the creation of new market opportunities which no doubt will benefit those players with the ability to enter these markets as early and decisively as possible. In this regard, it should be noted that incremental demand is likely to be more relevant for new business than absolute size. While difficult to quantify, creating significant market opportunities is bound to be easier in economies where demand is growing for several reasons. First, additional demand creates room for expansion without necessarily having to fight incumbents for existing business. Second, fixed entry costs make markets with larger absolute increases in demand more interesting destinations³.

On the other hand, the challenges for corporations from the developed world can not be overlooked, being the differences in competitive conditions (regulations, public support) a key one but also the increasing competition from local players in these markets. The best outcome would be a situation where the openness of emerging and developed countries to globalization and, more specifically, the internationalization of corporations is not affected. However, there is a non-negligible risk that protectionism may increase in the future to protect existing and new markets. This would indeed be a very negative outcome, in view of the potential demand power of the EMs and the role that foreign direct investment could play in accelerating its development.

Beyond this general feature, each country offers a specific set of opportunities given its characteristics, growth model, geographic location, actual level of development, etc. Identifying all those opportunities is one of the tasks BBVA Research is committed to for the next years to come. In the reminder of this section we focus on one that should be very relevant: the emergence of a new middle class and how it will tilt growth opportunities in the EAGLEs countries towards internal demand. On the other hand, other economies (generally smaller ones) are going to be more prone to specialize on re-exporting activities.

The middle-class consumer in the EAGLEs

Some countries in our EAGLEs group, like India, are huge in terms of their absolute population, but not so much in terms of the purchasing power of their citizens. Income per capita is a poor guide because it completely ignores inequality and the size of more affluent classes. We propose our own definition of middle class, namely the number of people whose income is expected to be larger than 800 USD per month (in PPP 2005 USD)⁴. This is a reasonable estimate of the income required to start demanding durable goods and financial services. Methodologically, there are several factors that affect this estimate, with a differential impact for emerging and developed nations. For developed countries, the main driver is clearly population growth, as income per capita is already very high and most percentiles of the income distribution lie above the threshold. However, for EMs, growth of income per capita adds to the mix and, importantly, income inequality matters: countries with more egalitarian income distributions will usually see more consumers above the 800USD mark.

According to our forecasts for the next 10 years, more than 250 million people will enter the status of middle class in all EAGLE countries. This is seven times the number expected for all the G7. China is the uncontested leader, and we expect it will add more than half of all new middle class consumers in the aggregate of the G7 and the EAGLEs. India, despite its low starting level in terms of per capita income, benefits from its relatively equalitarian distribution of income and large initial population. More surprising

3: Rafael and Nikolaos, 2003

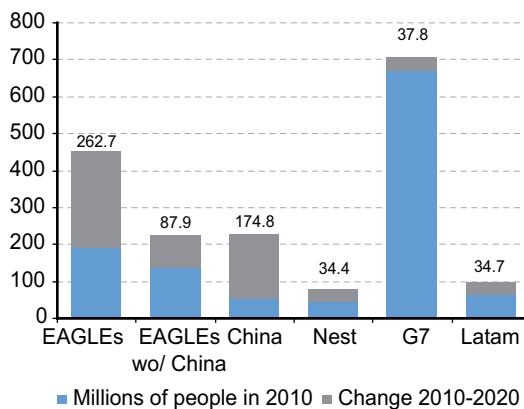
4: This is the formulation used by our colleague Carola Moreno in a forthcoming working paper.

is the fact that Mexico is expected to be more relevant in this dimension than Russia, which is due to the projected fall in total population in the latter. Among the EAGLE countries, only Egypt falls short of some of the G6 economies, because of its comparatively low initial income per capita. The consequences of low or even negative population growth in the developed markets are clearly felt in the lack of additional consumers in many of these economies.

For many industries/investors, the actual size of the consumer sector must also be balanced with its expenditure capabilities. In this regard, the income of the average middle class consumer will remain comparatively low versus the G7, but in some EAGLEs (particularly Brazil, Mexico, Turkey and Taiwan) income inequality implies that per capita incomes of those who exceed the 800 USD monthly mark will reach levels close to those in today's advanced EMs, like Israel. In view of this, and despite headline grabbing deals, it is all the more surprising that these markets are still far below the levels of foreign direct investment that would match their expected contribution to world growth and particularly, the growth of middle-class consumers.

Chart 15

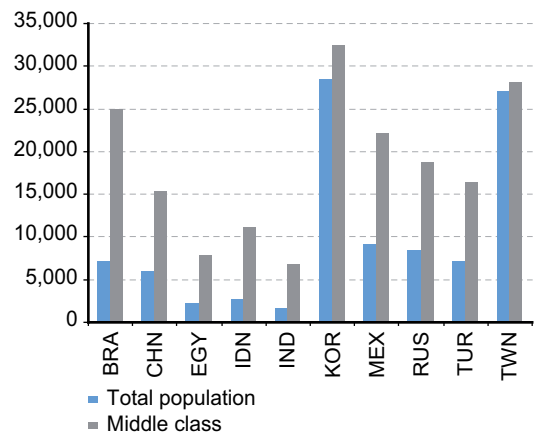
Number of people whose income will exceed 800USD per month. 2005 constant USD Millions



Source: BBVA Research

Chart 16

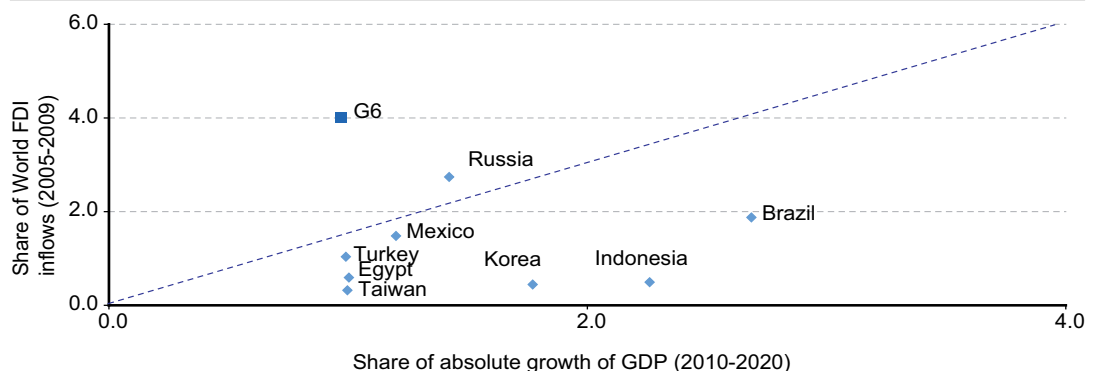
GDP per capita: total population and middle class* 2005 constant prices adjusted by PPP



* People with monthly income above 800 USD
Source: BBVA Research

Chart 17

Contribution to world growth in this decade and share of world FDI flows



Source: BBVA Research

Infrastructure opportunities in EAGLEs

Another source of opportunities on some EAGLEs countries is related to their inadequate supply of infrastructure when comparing to G7 countries, in particular for transport. These countries are particularly interested in improving their quantity and quality of infrastructure in order to foster their competitiveness. These projects may be developed by foreign investors and will give and extra impulse to GDP growth. When comparing it is clear the gap in general infrastructure between the EAGLEs and the G7 economies, with the exception of Korea and Taiwan.

A closer look to the quality of transport infrastructures reveals similar results as the previous described, with the clear achievements of Turkey, India and China which have already closed the gap with Italy, but still have to improve in order to catch up with the other G7 economies. Improvements must be made on the quality of all those types of infrastructure like roads, railroads, ports and air transport.

But there are also improvements to be done on the quality of electricity and telephony infrastructure. In particular is quite concerning the gap between the EAGLEs, with exception of Taiwan and Korea again, relative to the G7 economies.

It is clear there are plenty of opportunities for companies specialized on infrastructure projects to invest on the EAGLEs economies in the current decade. In addition these projects may be the beginning of a stronger and strategic partnership in the future.

Table 6

Infrastructure

| Overall Infrastructure | | Transport Infrastructure | | Electricity and Telephony Infrastructure | |
|------------------------|------|--------------------------|------|--|------|
| G6 Average | 5.83 | G6 Average | 5.81 | Taiwan | 6.06 |
| Taiwan | 5.63 | Korea | 5.73 | G6 Average | 5.85 |
| Korea | 5.59 | Taiwan | 5.19 | Korea | 5.44 |
| Russia | 4.46 | China | 4.73 | Russia | 4.82 |
| China | 4.44 | India | 4.50 | Brazil | 4.28 |
| Turkey | 4.21 | Turkey | 4.40 | China | 4.14 |
| Brazil | 4.02 | Russia | 4.11 | Turkey | 4.02 |
| Egypt | 3.97 | Egypt | 3.97 | Egypt | 3.97 |
| Mexico | 3.74 | Mexico | 3.96 | Mexico | 3.51 |
| Indonesia | 3.56 | Indonesia | 3.89 | Indonesia | 3.24 |
| India | 3.49 | Brazil | 3.76 | India | 2.49 |

Source: The Global Competitiveness Report 2010-2011

Financial markets

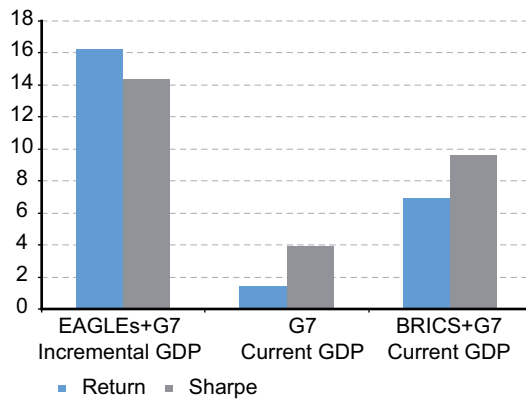
An unavoidable consequence of EMs' increasing economic relevance lies on the dynamics of their financial assets increasingly influencing in global financial markets.

Sometime during the initial steps of the crisis in 2007 and 2008, market participants speculated on the possibility that EMs could decouple from economic events in the developed world. This expectation turned to be incorrect as the events after the Lehman collapse showed. The integration driven by global trade and, for some countries, financial links resulted in a sharp downfall in asset prices in EMs but also in economic activity. At the same time as we experience increasing co-movement of asset prices in emerging and developed financial markets, we should also acknowledge a structural improvement in the risk perception of EMs relative to developed markets. And this is clearly corroborated by market movements. On the one hand, equity portfolios show significantly higher risk-adjusted returns for EAGLEs than developed countries (chart 18). Also, the median risk premium in sovereign CDS is clearly on a convergent path (chart 19).

We argue that such structural improvement in risk perception is due to fundamental factors in EMs. The first and foremost factor is simply the lasting deterioration of developed countries' macroeconomic situation as a consequence of the financial crisis. This is particularly true on the fiscal front. At the same time, the negative impact on the crisis in EMs has been short-lived as they have generally experienced a rapid recovery to "above trend" growth. On the fiscal front, prudent fiscal management in the run up to the crisis has left debt ratios on comfortable levels and most EMs are on their way to gradually rein in their deficits as part of their cooling efforts. As for external vulnerability, the recovery in global trade and the increasing importance of South-South trade have granted a general improvement in current account positions, with many countries in Asia, and to a lesser extent Latin America, still showing substantial current account surpluses. More details on this very important development can be found in the next section, when we discuss the risks associated with EMs. Overall, we argue that a more stable macro outlook in EMs is a lasting feature of the world economy for the next 10 years and that this will continue to push down the risk perception of these countries and, thereby, the CDS (see our BBVA Research's recent economic watch on sovereign EMs). In fact, investors have moved from essentially ignoring macroeconomic factors

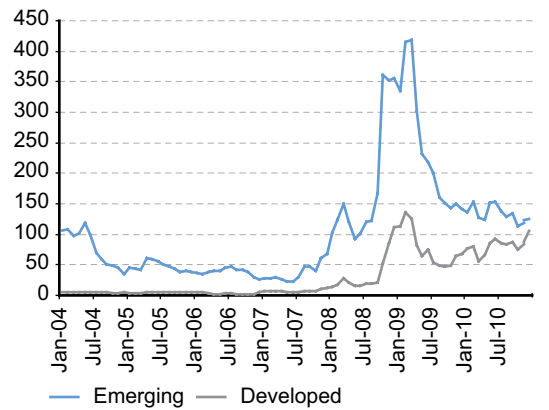
when assessing the risks premium in their valuations to a situation where macroeconomic conditions are essentially all that matters, even in some cases to the detriment of institutional factors. Our models for sovereign risk clearly confirm this evolution (chart 20).

Chart 18
Performance of alternative portfolios: return and sharpe



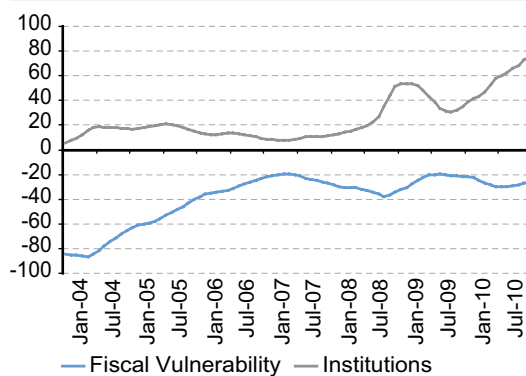
Source: BBVA Research

Chart 19
Median difference in sovereign CDS: emerging vs. developed



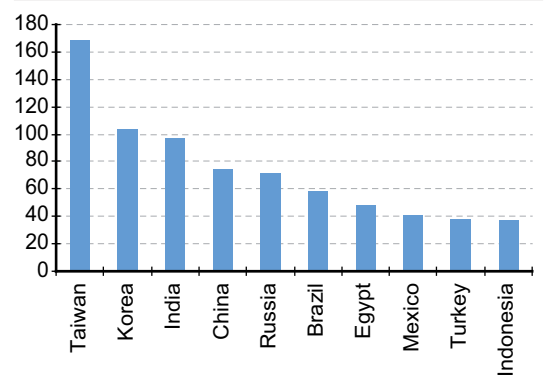
Source: BBVA Research

Chart 20
Sensitivity of sovereign CDS to fiscal and institutional variables



Impact of one standard deviation in both variables in estimated CDS
Source: BBVA Research

Chart 21
Market capitalization (ratio over GDP)⁵



Source: WDI, IMF and BBVA Research

In this context of deep changes in market relationships between emerging and developed markets, the question of how to position ourselves for maximum anticipation is critical. In our view, a powerful investment case can be made for going beyond standard allocation strategies. Fortunately, for most of the EAGLEs countries market capitalization is comparatively high relative to GDP, so the possibilities for overcoming liquidity constraints are growing (chart 21).

5: Market capitalization in 2010 is extrapolated based on the index return. IPO issued in the same period is not included.

Risks

Cyclical volatility and medium-term macroeconomic risks

Dispelling a myth: aren't EMs cycles more volatile?

Cyclical volatility is a traditional concern for investors and policymakers in EMs and rightly so. But there are several caveats to the simplistic view that EMs are always and everywhere more volatile. There are many EMs where macro volatility has been actually lower than for the developed nations, if compared with their higher average pace of growth. For most of the countries in the EAGLEs, volatility adjusted by the mean growth rate has been very similar to the G6 figure. Russia clearly stands out as a negative exception in this regard on account of wild swings in its economic activity which occurred in the nineties and, also importantly, the large impact of the recent crisis (which also hit Mexico notoriously).

In view of similar volatility, the margin of underperformance in the forecasts for the EAGLEs group appears relatively ample (see Table 8). For instance, Chinese growth needs to drop to almost null in the next 10 years in order to be dropped (ie. not to add to global growth more than the G6 average). In Russia, however, in view of larger volatility and a smaller size, comparatively smaller shocks could actually derail its growth contribution enough as to drop it from the list.

Table 7

Standard deviation of growth (relative to average) 1990-2010

| | |
|------------|-----|
| China | 0.2 |
| India | 0.3 |
| Egypt | 0.4 |
| Taiwan | 0.6 |
| G6 average | 0.6 |
| Korea | 0.7 |
| Brazil | 0.7 |
| Indonesia | 1.0 |
| Turkey | 1.3 |
| Mexico | 1.3 |
| Russia | 3.7 |

Higher Risk

Source: BBVA Research

Table 8

Number of standard deviations from baseline to increase GDP size less than average G6. 2010-2020

| | |
|-----------|-----|
| China | 8.7 |
| India | 5.3 |
| Egypt | 3.4 |
| Brazil | 2.9 |
| Taiwan | 1.4 |
| Korea | 1.3 |
| Indonesia | 1.2 |
| Mexico | 0.9 |
| Turkey | 0.7 |
| Russia | 0.5 |

Higher Risk

Source: BBVA Research

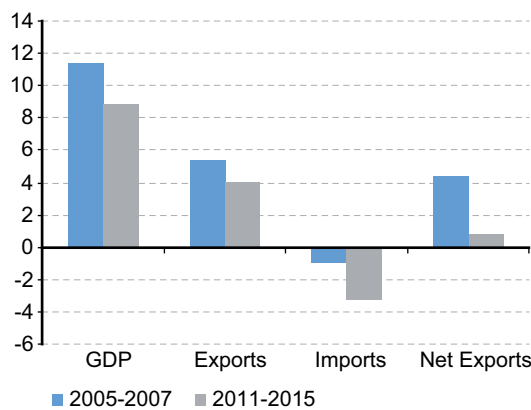
The dependence on external demand: a realistic assessment

Most investors consider dependence on external demand a vulnerability, because a slowdown in the developed world will impair their imports. In this regard, we would highlight that our forecasts already incorporate the assumption that external demand will play a less important role in the growing path of the EAGLEs. This is consistent with the fact that moderation of private demand in developed countries will continue for a long time due to softening economic situation. Meanwhile, an acceleration of imports could be estimated against the background of a rebalancing of growth towards domestic demand, even though the process may be gradual. Take China for example, which is always at the centre of public discussion on global imbalances, and where we expect a reduction in the contribution of exports to growth of about 1/3 during the period of 2011 to 2015, compared to the pre-crisis level; net exports will contribute at most 1% to GDP growth at the same period.

Despite the above, we see some upward risks to the potential contribution of trade, based on the growing South-South trade. The growing share of South-South trade implies that trading activities of the EAGLEs are walking towards a more balanced and sustainable model, thereby reducing the impact of external shocks from developed countries while stimulating internal needs and attracting

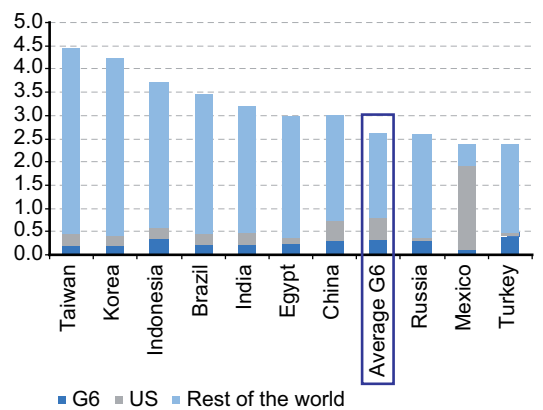
strong demands in other emerging economies. In other words, as the fast growing countries in the EAGLEs trade more intensively among them, their own demand dynamics become more relevant and self-sustaining. Taking into account the composition of their trade and the expected growth rate of its partners, the growth of GDP in the export markets of the EAGLEs countries is generally expected to be better than the developed countries. But it should be noticed this may not be the case for Mexico given its dependence on the US economy, and Turkey and Russia may suffer because of their closer links with Europe. All in all, the change of growth sources and trade structure in the EAGLEs (from external demand to internal demand and from South-North trade to South-South trade) has the potential to build up a solid foundation for sustainable economic growth.

Chart 22
China: contribution to GDP growth



Source: BBVA Research

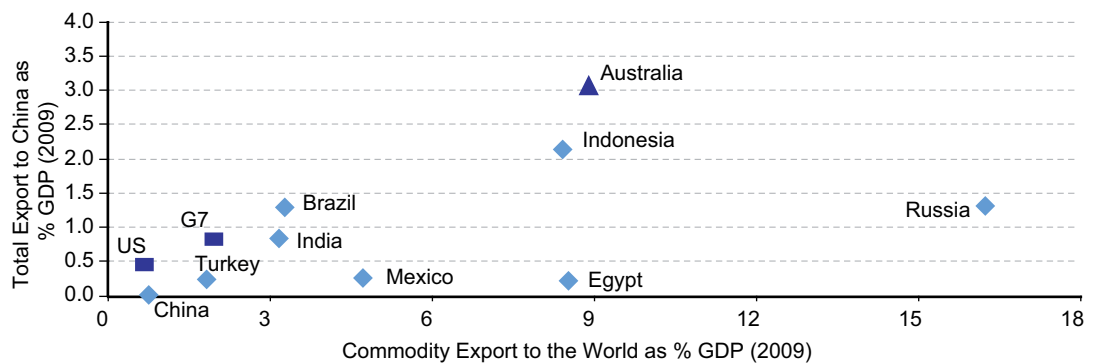
Chart 23
Forecasted GDP growth of export partners weighted by trade



Source: BBVA Research

Dependence on commodity trade and China relationships is also cause for concern. Generally speaking, some EAGLEs economies appear to have a higher exposure to external shocks. Russia and Korea stand out in this dimension, as a consequence of their high weight of oil exports and China exports, respectively. Specifically, as for geographic concentration of exports (to China), it is not significantly different in most EAGLEs countries when compared to the US and G7 group, except for Korea which exported to China as 10% of its GDP in 2009 and Taiwan as well. Moreover, exposure to commodities engenders larger risks than reliance on China, but only for Russia, which commodity exports represented around 16% of its GDP really leap out with a large exposure in the EAGLEs group. Even so, it is worth nothing that Australia seems to more dependent on China and commodity exports in contrast with Korea and Russia.

Chart 24
Exports to China and commodities export: percent of GDP*



* Korea and Taiwan are out of scale. For Korea exports to China and commodity exports are 10% and 3% of GDP respectively. For Taiwan there's no data available but exports to China are very high
Source: BBVA Research

Assessing overall country risk: a quantitative approach

The negative and persistent impact of the crisis on the macro situation of developed economies, particularly in the fiscal front, is in stark contrast with the growing evidence that it has had only a temporary impact on the vulnerability indicators of EMs. The fact is that on most macroeconomic-related metrics EMs are usually better positioned than developed economies (Chart 27). The years of prudent policy management by many EMs appear to have paid off, but the question of exactly how much and how lasting this is remains.

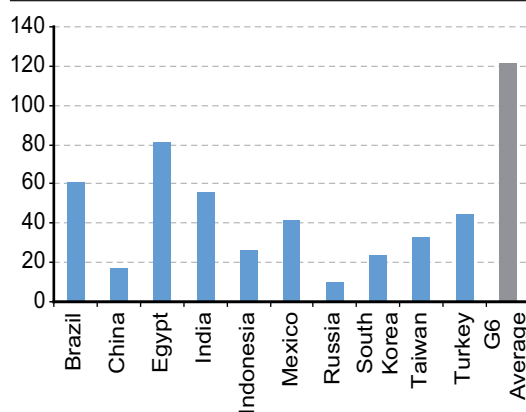
In an attempt to answer this question, we have developed a model for country risk which allows adjusting for global market swings and identifying genuine structural trends. The model attempts to predict historic and future sovereign risk for any country by using the monthly average of credit default swap (CDS) spreads as a proxy for sovereign risk. CDS spreads are decomposed into a global component that impacts each country simultaneously, such as the fall of Lehman Brothers and Bear Stearns, and an idiosyncratic component that is country specific.

The idiosyncratic component can then be broken down in macro related factors and institutional factors. In particular, to estimate idiosyncratic risk, GDP growth rates and inflation rates are combined with indicators for fiscal vulnerability, external vulnerability, and institutional framework. The fiscal vulnerability indicator is a summary of deficits and total debt, while the external vulnerability indicators measures current account positions and external debt. The institutional indicator is an average of the "Rule of Law" and "Political Stability & Absence of Violence/Terrorism" indicators taken from the World Bank's Worldwide Governance Indicators (WGI).

In analyzing the results of the model for 2010 to 2015 excluding the institutional indicator, the majority of the EAGLEs are predicted to be in a better macroeconomic position compared with the G7 and more developed countries. Projected GDP growth rates remain relatively high in the EAGLEs, and are typically supported by stronger fiscal and external positions. Turkey and Egypt appear most exposed in this dimension, on account of their comparatively larger external and fiscal deficits.

Chart 25

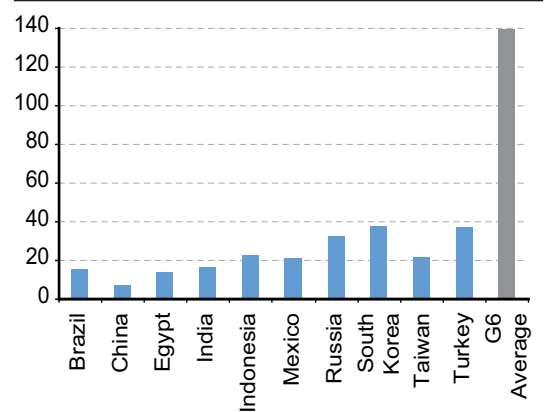
Public Debt over GDP in EAGLEs vs. G6 avg



Source: BBVA Research and EIU

Chart 26

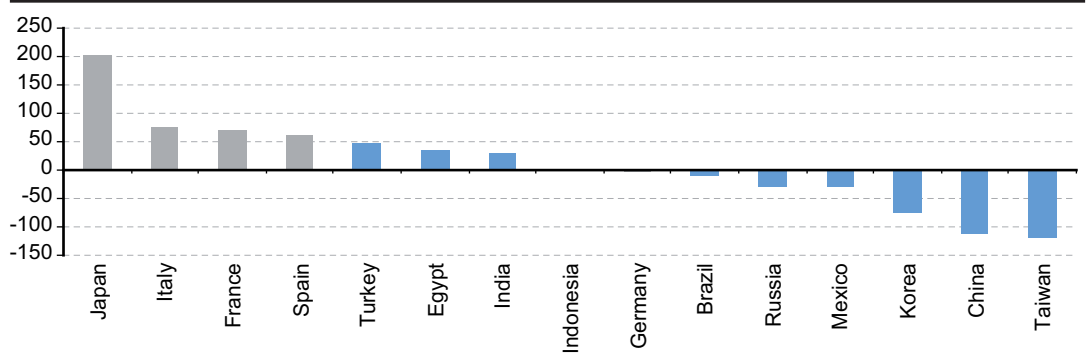
External Debt over GDP in EAGLEs vs. G6 avg



Source: BBVA Research and CIA Yearbook 2010

Chart 27

Idiosyncratic macro-based risk: EAGLEs vs. Developed Markets



Source: BBVA Research

Is the institutional gap closing or widening?

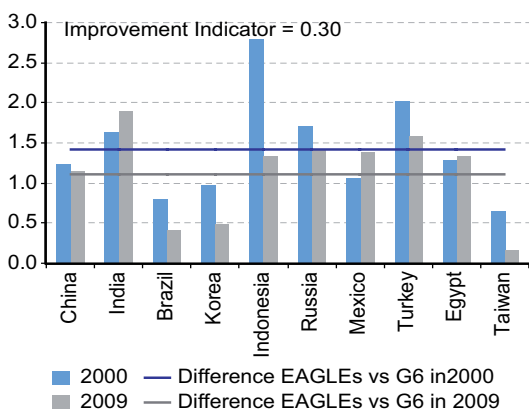
Despite better macroeconomic prospects, the gap in institutional frameworks remains large and its importance for economic growth in the long run can not be dismissed. Whether it is improving or worsening, however, is not an easy question, given the lack of a commonly agreed way to measure such an elusive concept as institutional quality.

We follow in this section usual practice and stick to the framework proposed by the World Bank's Worldwide Governance Indicators. At the aggregate level, the EAGLEs have achieved improvements in the past decade, which gives reasonable hope to allow expecting further upgrades in institutional quality during the current decade. Accordingly, while the G6 countries still have uniformly better rankings than EAGLEs do, the gap between them appears to be shrinking. This process, however, is still very slow and heterogeneous.

Country differences are very relevant and make generalizations difficult. Overall, the largest improvement in the gap between G6 and EAGLEs is seen in the Political Stability & Absence of Violence and Terrorism which has been narrowed by almost 0.3 in the past decade (see Chart 28). This reflects a general trend towards lower social tensions as a consequence of economic improvement, as well as the end of internal strife in some of the countries considered. As for the Government Effectiveness and Regulatory Quality indicator, the gap between the two groups also has been diminished by 0.22 (see Chart 29), representing the EAGLEs achieved improvements in facilitating public services and implementing sound regulations for the same period. Among EAGLEs, Korea and Taiwan are two economies gaining closer numbers with the G6 average level.

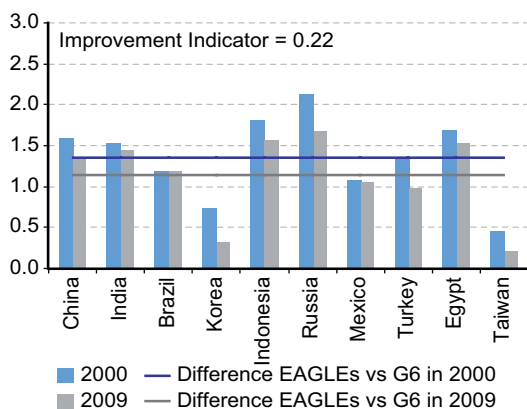
In relative terms, the one area where improvements for EAGLEs appear to be lacking is in the rule of law indicators. Given the importance of this particular dimension of institutional quality for more developed stages of development, additional efforts in this area should remain a priority.

Chart 28
Gap in Political Stability & Absence of Violence/Terrorism



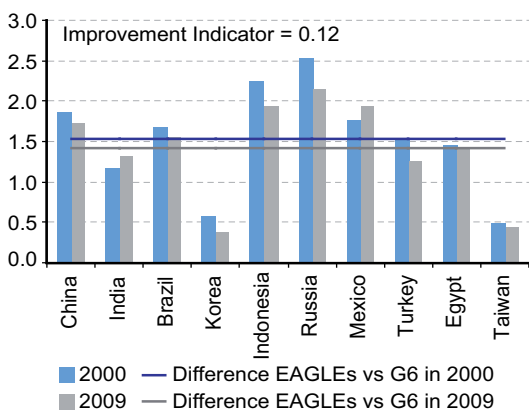
Source: BBVA Research

Chart 29
Gap in Government Effectiveness and Regulatory Quality



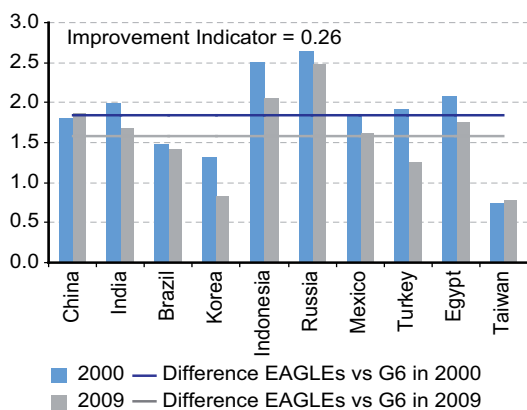
Source: BBVA Research

Chart 30
Gap in Rule of Law



Source: BBVA Research

Chart 31
Gap in Control of Corruption



Source: BBVA Research

Human capital quantity and quality: how far are the EAGLEs?

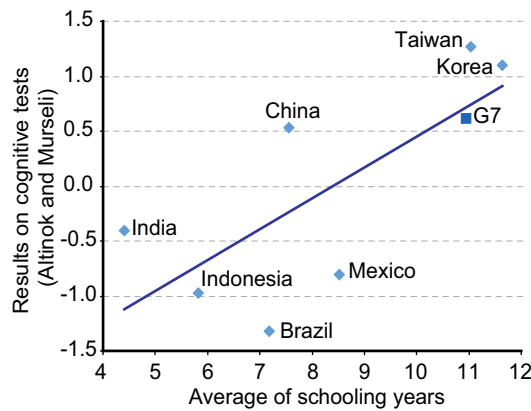
Besides the institutional indicators mentioned above, a parallel improvement in human capital is a pre-requisite for economic growth. Quantity of education and its quality are important, with the latter being particularly relevant in view of the speed of technological change. Progress in this regard is encouraging, but some exceptions remain.

The long term trend toward further provision of education is well reflected in statistics of years of schooling. With the exception of Korea and Taiwan, whose education statistics closely resemble those of developed economies, all the EAGLEs countries have experienced improvements in the duration of their schooling.

As regards quality, according to normalized cognitive test results most EAGLEs fall behind G7 economies, but Asian economies can actually match the results obtained by the G7 economies. Identifying trends is not easy given the lack of long series and the inherent volatility in the test scores, but Indonesia appears a negative case (given its low initial level and some worsening since 2006), while Turkey is a very good performer in this dimension.

Chart 32

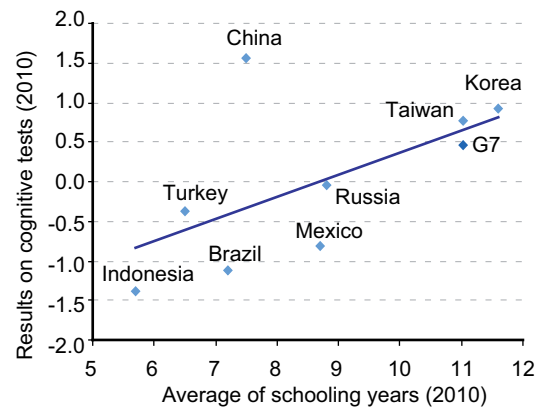
Education: Years of Schooling and Cognitive test results



Source: BBVA Research

Chart 33

Education: Cognitive test results (PISA 2009)



Source: United Nations Development Programme (UNDP) and OECD Programme for International Student Assessment (PISA)

Furthermore, as the latest PISA survey has been launched in the end of 2010 (see Table 9), students from mainland China took part in the survey for the first time and outperformed the rest of the world in the reading, mathematics and science sections. In the meantime, Korea and Taiwan are still outliers with higher scores than G7 countries (see Chart 33). The above three Asian EAGLEs are ranked in top ten in terms of average scores in math and science of PISA 2009. Besides, Turkey, Mexico and Brazil all achieved better average scores compared to their results in 2006. The latest results further indicate that most EAGLEs continue their upward trends of improvement in education.

Table 9

OECD Programme for International Student Assessment (PISA) Ranking 2009

| 2009 Ranking | PISA | Average score in math and science 2009 | Average score in math and science 2006 |
|--------------|-----------------|--|--|
| 1 | Shanghai-China | 587 | NA* |
| 2 | Singapore | 552 | NA* |
| 3 | Hong Kong-China | 552 | 545 |
| 4 | Finland | 547 | 556 |
| 5 | Korea | 542 | 535 |
| 6 | Japan | 534 | 527 |
| 7 | Taiwan | 532 | 541 |
| 8 | Liechtenstein | 528 | 524 |
| 9 | Canada | 528 | 531 |
| 10 | New Zealand | 526 | 526 |
| 16 | Germany | 517 | 510 |
| 19 | United Kingdom | 503 | 505 |
| 25 | France | 498 | 495 |
| 29 | United States | 495 | 482 |
| 36 | Italy | 486 | 469 |
| 39 | Russian | 473 | 478 |
| 43 | Turkey | 450 | 424 |
| 50 | Mexico | 417 | 408 |
| 56 | Brazil | 396 | 380 |
| 61 | Indonesia | 377 | 392 |

*Both mainland China and Singapore participated in PISA for the first time in 2009

Source: BBVA Research and OECD Programme for International Student Assessment (PISA)

A risk scorecard

In order to offer a more objective assessment of the risks in EAGLE economies, it is useful to assess their main vulnerabilities based on a set of key macroeconomic and institutional variables. This is a tentative assessment, as risk comparisons are obviously difficult. Nevertheless, it does serve as a useful checklist of the risks that could affect the countries in the EAGLEs group and how they compare.

Risks factor No.1) Are our forecasts too optimistic?

We obviously think they are not, but it is useful to have a quantitative metric for this. A useful comparison is how forecasts for GDP growth between 2010 and 2020 compare with the experience of the boom period in 2005-2007. Against this metric, Brazil and Egypt are the two countries where we have factored a lower downward adjustment in growth rates and would appear more vulnerable to some negative revision in coming years. We think this is justified by the low impact of the crisis in Egypt and the evidence that Brazilian growth was not so booming in the period considered.

Risks factor No.2) How exposed are countries to short-term shocks in the global economy?

We look at three different vulnerability indicators, as this is a multi-faceted question.

First, we analyze the contribution of external demand to GDP growth. China and Taiwan stand out in this dimension as the most risky economies, in our view, in account of the importance of the external sector for their internal demand developments.

A second vulnerability is related to low growth of trading partners, which can become a significant drag in relative terms to other EMs. Mexico, Turkey and Russia appear as the countries in the EAGLEs group with lower dynamism of their trading partners, as a consequence of their close ties with the US and Europe.

Finally, we count as a vulnerability exposure to a shock in the price of commodities or a slowdown in China (measured as the respective weights of exports over GDP). Russia and Indonesia would appear to be on the higher side of exposure on both dimensions simultaneously. However, Korea and Taiwan are clearly at risky on account of its relationship with China.

Risks factor No.3) Macroeconomic risks in the short-term?

To answer this question, we use the results from our sovereign risk model, discussed in section 2. India and Egypt are more vulnerable on account of their external and fiscal imbalances, even if they still compare favourably with the G7 average.

Risks factor No.4) Sustainable growth model in the long-term?

Risks to long-term growth forecasts are quantified using three variables. First, we look at those countries with low population growth, which is the most predictable component of potential GDP. Korea, Russia and Taiwan are expected to experience the lowest population growth rates, which puts them in a more vulnerable footing as regards their sources of economic growth.

Second, we look at the share of Total Factor Productivity in explaining potential growth. A higher share of TFP in total growth could be considered as vulnerability simply because this is the part of growth that is more difficult to understand and forecast. In this vein, Russia and Brazil are the countries where the contribution of TFP would have to be larger, which makes their performance more uncertain.

Finally, we consider absolute levels of institutional quality, in an effort to measure risk stemming from institutional instability, the potential for reform setbacks, etc. Russia and Mexico lag behind the rest of the EAGLEs in most indicators we consider.

Table 10

Vulnerability test on EAGLEs countries

| Simple methodology: count number of appearances on riskier/worse side of any variable | | | Results | | |
|---|----------------------------------|---------------------------|-----------|--|-------------|
| Criteria | Rational | Worse Countries | Country | Vulnerability | Total count |
| 2010-2020 forecast vs. pre-crisis | Higher implies more optimistic | Egypt, Brazil | China | External dependence | 1 |
| External demand | | | India | Macro imbalances | 1 |
| Contribution from net exports | Higher, implies more optimistic | China, Taiwan | Brazil | Optimistic growth, high TFP | 2 |
| Trade partners growth | Lower, implies less dynamism | Mexico, Turkey | Korea | Low population growth, Weight on China/Comm | 2 |
| Weight of China/Commodities | Higher, implies greater exposure | Taiwan, Russia, Indonesia | Indonesia | Exposure to China/Comm | 1 |
| Macroeconomic risk | Higher, implies large imbalances | Egypt, India | Russia | Weight of China/Comm, low population growth, institutions | 4 |
| Growth Model | | | Mexico | Low growth of trade partners, institutions | 2 |
| Population growth | Lower, implies stagnation risks | Russia, Korea, Taiwan | Turkey | Low growth of trade partners | 1 |
| Change in share of TFP | Higher, more optimistic | Russia, Brazil | Egypt | Optimistic, macroeconomic imbalances | 2 |
| Institutions | Lower, higher uncertainty | Russia, Mexico | Taiwan | External dependence, Weight of China trade and low population growth | 3 |

Source: BBVA Research (Forecast November 2010)

Putting it all together

Different investors will take different views of the risks we consider, depending on their investment horizon and sector of interest. Because of this, the weight of different risks is not straightforward and we have opted to simply add up vulnerabilities (ie. those instances where a country appears on the “two most vulnerable” economies in the aforementioned risk factors). When results were very close, however, we enlarged the list to include a third country (table 10). Generally speaking, all countries we consider, particularly in Asia, are only subject to one or two vulnerabilities, mostly related with external exposure and particularly to China. On the other side of the spectrum, Russia is singled out as the most vulnerable economy due to a lack of diversification (production and exports concentrated on commodities), high exposure to China, low population growth and weak institutions; thus, Russia is, the riskiest EAGLEs of all.

Concluding remarks

The world is increasingly aware of the importance of emerging markets, which has deep implications.

The economic dimension is arguably the easiest one to see at this stage. In fact, economic activity will become increasingly concentrated in EMs in general and, more specifically, in a limited group of countries, namely the EAGLEs if we focus on new growth. Over time, this shift will result in EMs overtaking the developed markets in terms of absolute size but investors wanting to anticipate this trend should not wait till that happens to act. We think there are very strong incentives to adapt strategic positions now, both in corporate strategy and portfolio investments, even if this implies some risks. Moreover, as we have demonstrated, this risks have to do in most cases with a more uncertain world, and not so much with the traditional mantra that "EMs are riskier".

Beyond this, there are other areas where the change in the global landscape is more difficult to anticipate, but probably as important. The configuration of international relations among key economies is one such area. How and when international relations will evolve to adapt to this new economic reality is still unknown but that such change needs to occur is undeniable. On a deeper level, the interaction of different societies, which have already been undergoing huge transformations as a consequence of technological advance, will accelerate with all related challenges. We end this report with the hope that our initial contribution with the EAGLEs concept serves as a useful stepping stone in that path.

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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*
Daniel Navia
+34 91 5378351
daniel.navia@grupobbva.com

Mario Nigrinis
+ 852 2582 3193
Mario.nigrinis@bbva.com.hk

José Ramón Perea
+ 34 91 374 72 56
jramon.perea@grupobbva.com

Alfonso Ugarte
+ 34 91 537 37 35
alfonso.ugarte@grupobbva.com

With the assistance of:

Kelsey Hatcher
kelsey.hatcher@grupobbva.com

Paul Pozarowski
paul.pozarowski@bbva.com.hk

Tao Tang
tao.tang@bbva.com.hk

George Xu
george.xu@bbva.com.hk

BBVA Research

Group Chief Economist
Jorge Sicilia

Chief Economists & Chief Strategists:

Regulatory Affairs, Financial and Economic Scenarios:

Financial Scenarios
Sonsoles Castillo
s.castillo@grupobbva.com

Financial Systems
Ana Rubio
arubiog@grupobbva.com

Economic Scenarios
Juan Ruiz
juan.ruiz@grupobbva.com

Regulatory Affairs
María Abascal
maria.abascal@grupobbva.com

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
Daniel Navia
daniel.navia@grupobbva.com

Pensions
David Tuesta
david.tuesta@grupobbva.com

Asia
Stephen Schwartz
stephen.schwartz@bbva.com.hk

South America
Joaquín Vial
jvial@bbvaprovida.cl

Argentina
Gloria Sorensen
gsorensen@bancofrances.com.ar

Chile
Alejandro Puente
apuente@grupobbva.cl

Colombia
Juana Téllez
juana.tellez@bbva.com.co

Peru
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:

United States
Nathaniel Karp
nathaniel.karp@bbvacompass.com

Mexico
Adolfo Albo
a.albo@bbva.bancomer.com

Macro Analysis Mexico
Julián Cubero
juan.cubero@bbva.bancomer.com

Contact details:

BBVA Research Asia
43/F Two International Finance Centre
8 Finance Street Central
HONG KONG
Phone: +852 2582 3111
E-mail: research.emergingmarkets@bbva.com.hk