

Economic Outlook

EAGLEs

Annual Report 2013
Economic Analysis

- **On a yearly basis BBVA Research selects the key emerging countries** comparing them with major developed economies. The nine emerging countries classified as EAGLEs last year continue to be on the list after revising their long-term projections: **China, India, Indonesia, Brazil, Russia, Korea, Turkey, Mexico and Taiwan**. The Nest group is formed by 14 countries, most of them in Asia and Latin America.
- **The EAGLEs and Nest, together, are expected to contribute 68% to world growth between 2012 and 2022**, led by China and India, both with a higher share than the US. The **G7 economies will add a mere 16%**.
- **Although the EAGLEs and Nest have enjoyed the blessings of lower vulnerabilities in 2012**, the challenging situation in some countries has shown that there is **no room for complacency** so that further reforms would be needed to consolidate their long-term outlook. In fact, investment and productivity gains are needed to face an **aging population in some of them**.
- **Rapid urbanization and a growing middle class** have started and will continue to change consumption patterns quite radically.

Index

Summary.....	3
1. Key takeaways in 2012.....	4
A challenging external environment.....	4
How did EAGLEs and Nest fare?.....	5
2. New forecasts for the next decade.....	7
Membership and ranking 2013 update.....	7
How do we see the world around the EAGLEs and Nest concept?	9
Box: EAGLEs methodology and membership robustness	12
Long-term vulnerability assessment	14
3. The role of ‘emerging people’ in sustainable growth.....	18
Aging is not exclusive of developed economies	19
Declining household size	21
Migration to cities: rapid urbanization process	21
The growing middle class: wealthier and wealthier.....	23
New middle class not only to drive global consumption but to change composition	24

Publication date: March 2013

Summary

After briefly reviewing key developments in the emerging world in 2012, the third annual update of the Emerging and Growth Leading Economies (EAGLEs) reassesses the economic relevance of emerging economies and compares them with a core group of developed countries. To this end, we follow the same rigorous but dynamic approach followed in previous reports given its benefits:

- Members of both the EAGLEs (the 'prime list') and the Nest group (the candidates to become an EAGLE) are not predefined but chosen based on their relative performance with respect to a single comprehensive criterion (contribution to global growth) and a transparent threshold. Last year Egypt became the first 'fallen angel' in our list and left the EAGLEs group while Chile and Ukraine were upgraded to the Nest group.
- Our revision of long-term forecasts for all emerging countries and major developed ones for the period 2012-2022 concludes with one more change in membership: a worsening outlook brings again Ukraine out of the Nest.
- China, India, Indonesia, Brazil, Russia, Korea, Turkey, Mexico and Taiwan are confirmed as members of the EAGLEs group, while 14 countries continue to be part of the Nest, six of which are in Asia and four in Latin America.
- EAGLEs and Nest countries together are expected to contribute more than two thirds to world growth between 2012 and 2022, with most of the incremental GDP located in Asia. Other emerging countries, frontier markets and least developed economies push up the share close to 80%.
- In contrast with this leading role, developed economies are expected to contribute only a fifth to global growth, half of which corresponds to the US.
- Long-term trends in emerging markets draw a solid picture, anticipating that the catch-up with developed economies will continue. Under the umbrella of macro stability and prudent policies during the last 10 to 15 years, the core of the EAGLEs is leading unprecedented transformations which are affecting a huge amount of people. This annual report dedicates a special section to the role of 'emerging' people in sustainable growth.
- Increasing purchasing power has already allowed a massive transfer of population out of poverty, as well as the creation of a booming middle class. This will bring a huge change in consumption patterns in these countries.

Finally, in this report we would like to remind that risks are also present in a general positive outlook. Last year's challenging -even if still relatively positive - outcome for emerging markets has shown that full decoupling is unrealistic under strong trade, financial and confidence links. Being isolated is not possible, so the key is to be as prepared as possible for 'the rainy days' as many emerging economies have already done.

The radical change for emerging countries during the last 10 to 15 years has been the birth of the so-called 'new normal' of risk as a result of lower vulnerabilities, both in historical and relative terms to developed markets. However, the lesson should be that there is no room for complacency and further reforms should be implemented for our scenario of rapid convergence to higher income per capita to fully come true.

1. Key takeaways in 2012

A challenging external environment

2012 was disappointing for global growth, which we now estimate to have been around half a percentage point below what we had expected one year ago. The balance was negative **despite resilience in emerging economies**, which in any event still suffered from their tight linkages with the developed world.

The following global events are worth highlighting given their relevant impact in the EAGLEs and Nest countries throughout last year.

- **Uncertainty remained high:**
 - Despite positive steps and diminishing tail risks, **institutional concerns** remained in the EMU and fiscal cliff became again a major risk at the end of 2012. Increasing worries related to Japan extended the gloominess to the whole developed world.
 - Turmoil in the **Middle East** didn't abate but shifted among countries: a civil war in Syria, renewed tensions between Israel and Palestine, the approval of Western sanctions to Iran and the return of political instability to Egypt. **Geopolitical tensions** were not, however, exclusive of this area, with an increasing hotspot located in the **China Sea**.
- **Central banks have so far succeeded in managing global risk aversion:**
 - Global risk aversion cycle moved as a roller coaster, which extended **waves of capital flows in and out emerging markets**. A new episode of the EMU crisis was behind severe financial tensions in the spring, sharply increasing risk aversion and, thereby staving off capital inflows into emerging markets until **bold actions were adopted by the ECB and the Federal Reserve in the summer**.
 - In the current more benign environment, with much lower global risk aversion, large capital inflows into emerging economies make the management of **monetary and exchange rate policies very challenging for emerging economies**. While there are several options in the authorities' toolkit, there are important trade-offs depending on the response (mainly between exchange rate overvaluation and excessive credit growth)¹.
 - In any event, **vulnerability levels are historically low in emerging economies** compared to developed² (Chart 1). This paradigm change by which emerging markets continue to have a relatively good return but at a much lower risk than developed countries, which we call the new 'risk normal', is analyzed in some detail in the second section of this report.
- **Low growth in developed economies:**
 - **Activity weakened further in the developed world** under an uncertain environment and, less so, in emerging economies. **Increasing risk appetite coexisted with deteriorating hard data during the second half of last year**. Only emerging economies showed clearer signs of bottoming out during the last quarter of 2012. This trend has only improved further during the first months of 2012 with very few exceptions (notably India).
- **Softening world trade but increasing South-South flows:**
 - World trade slowed throughout last year, with negative spillovers from the EMU and Japan. **Emerging economies' trade figures bottomed out in the summer** with quite good export data during the last quarter, in contrast with developed countries.

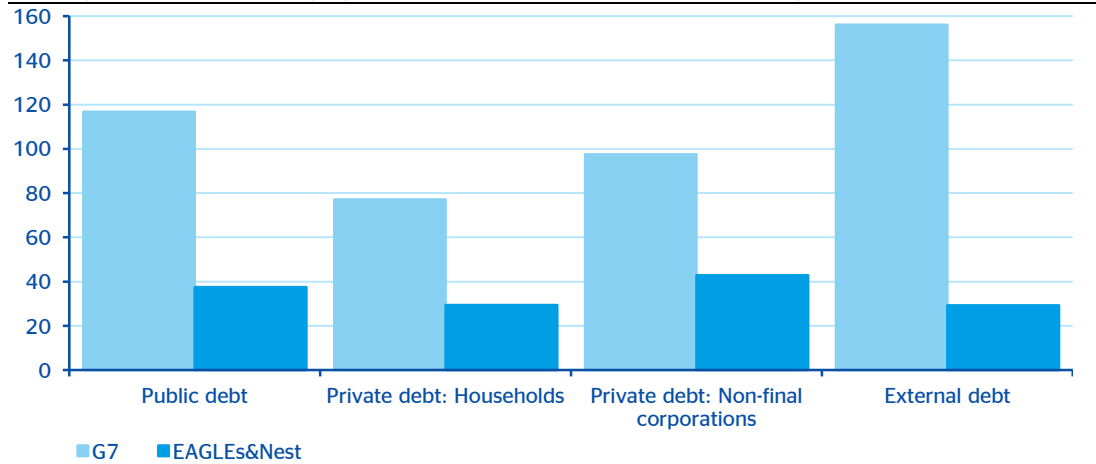
1: For further details, consult our recent report: "The impact of the QE in Emerging Markets: managing success problems", EAGLEs Economic Watch, BBVA Research, November 2012.

www.bbva.com/research/KETD/fbin/mult/121102_EW_EAGLES_QE_impact_tcm348-360747.pdf?ts=522013

2: A thorough analysis is available at our quarterly country risk report:

www.bbva.com/research/KETD/ketd/ing/nav/tematicas/riesgopais/index.jsp

Chart 1
Leverage indicators in emerging and developed economies (simple average in % of GDP, 2012)



Source: BBVA Research

- The reduction of exports to the EMU deepened an existing **downward trend of the share of emerging markets' exports towards developed economies**. On the contrary, **trade among emerging economies kept on booming**. In fact, **EAGLEs and Nest' exports to other emerging economies rose to 42% of total exports in 2012 from 25% in 2000³**.
- **Supply shocks in some commodity markets:**
 - **The co-movement of commodity prices broke** in 2011 and diverged sharply last year. **High oil prices** were backed by sanctions to Iran and **food prices also increased**, as they were strongly **hit by adverse weather conditions**, especially due to severe drought in the US during the summer⁴. In contrast, the **rest of commodities**, including **metals**, saw prices fall following **weaker activity conditions** worldwide.

How did EAGLEs and Nest fare?

Emerging economies remained resilient last year despite a challenging external environment. **However, their poorer than expected economic performance does show that full decoupling** from the developed world is not possible under current strong trade, financial and confidence channels.

Under these conditions, growth disappointment extended to some of the **EAGLEs⁵**:

- India, Taiwan and Brazil clearly underperformed with respect to forecasts at the beginning of last year, followed by Korea and China.
- **Concerns on sustainable growth arose, in India** related to political gridlock, fiscal overspending and investment barriers. **Brazil's** key concerns related to stubbornly low growth related to poor industrial competitiveness and credit moderation. **China's** concerns were focused on the still very uneven economic model and the lack of consumption.
- In addition, **the most open economies, Taiwan and Korea, were among the most hit by softening world trade**.
- **Electoral processes** were not a source of concern in Taiwan, Korea and Mexico, while political transition in China was smooth.

3 A clear example is the increase of China's commodities demand from Latin America. Further analysis is available at: "Evaluating Latin America's commodity dependence on China", Working Paper 13/05, BBVA Research, January 2013. www.bbva.com/KETD/fbin/mult/WP_1305_tcm348-370500.pdf?ts=522013

4: "Supply shocks turn on again red light for food inflation", EAGLEs Flash, BBVA Research, August 2012. www.bbva.com/KETD/fbin/mult/Flash_Commodities_1stAugust12_tcm348-349329.pdf?ts=522013

5: Please be aware that analysis in sections 1 and 3 take as a reference EAGLEs and Nest members as defined last year. The new group definitions are present in Section 2, where we comment the update of our forecasts for the next ten years.

- Authorities in all these countries reacted and **put measures on the table to tackle economic slowdown**, ranging from fiscal (East Asian economies) and monetary stimuli (especially relevant in Brazil) to supply policies to avoid bottlenecks (India). As a result, **growth began to gain momentum in Q4**.

On the contrary, the rest of the EAGLEs kept expected strength and even surprised to the upside:

- **Indonesia** expanded more or less at the expected pace. Activity growth was high, and, although concerns persisted on investment climate, it became the eighth EAGLE to receive investment grade status.
- Russia, Mexico and especially Turkey surprised to the upside:
 - **Russia was benefited by favorable terms of trade**, with oil trading at an annual average of 110 dollars per barrel (a similar reading than in 2011), as well as by expenditure linked to Presidential elections.
 - **Mexico** was boosted by US demand under **rebuilding competitive capacities**. This feature adds to **macro stability** when explaining markets' warm welcome to Mexican assets in 2012.
 - **Turkey underwent a healthy soft landing**, which led to a higher than expected adjustment in the current account deficit. While domestic demand remained stagnant, net exports supported a moderate growth. A very active management of monetary tools and low global risk aversion also supported a more benevolent outcome. Turkey received in 2012 investment grade rating by Fitch.

Finally, developments in the **Nest countries** were broadly in line with last year's forecast although with a wide dispersion of deviations. Most Asian economies were either in line with expectations or significantly above, as it happened with Chile and Peru in Latin America. On the contrary, Poland in Emerging Europe was hit by weakening demand in the EMU, while political transition remained bumpy in Egypt after elections.

2. New forecasts for the next decade

Membership and ranking 2013 update

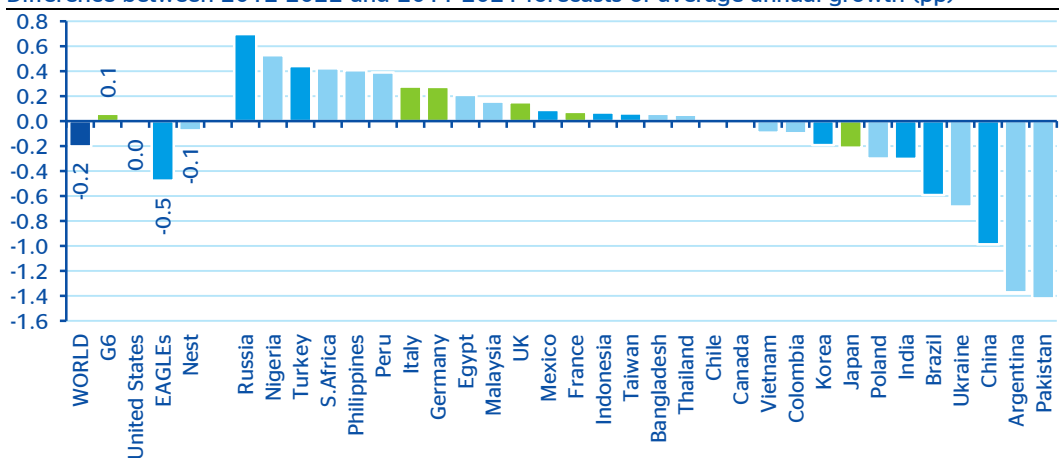
The EAGLEs concept is inherently flexible and dynamic (see Box on methodology). In 2012 Egypt became the first 'fallen angel' and lost the EAGLE condition due to social and economic turmoil on the outburst of the Arab Spring, while Chile and Ukraine, which were at the waiting list of the 45 emerging markets, became part of the Nest group.

In 2013, there are no new entries in either group, while Ukraine drops from the Nest. Within the groups, there are some important changes (Chart 2):

- **Both the EAGLEs and Nest thresholds have been slightly revised upwards due to “substitution effects”**. As the time span moves, 2012 has been substituted by forecasts for 2022, and both the G6 average and minimum (Italy) improve with this change.
- Among the EAGLEs, **growth projections for Russia and Turkey have been upwardly revised** on better medium and long-term prospects. On the contrary, **India, Brazil and especially China are expected to grow less** on average during the following ten years, in line with structural concerns pointed out in the first section.
- In the Nest group (as defined in 2012), **the outlook has improved for the three African economies, the Philippines, Peru and Malaysia**, whereas it has **worsened somewhat for Poland** and **significantly deteriorated for Argentina, Pakistan and Ukraine**.

Chart 2

Difference between 2012-2022 and 2011-2021 forecasts of average annual growth (pp)

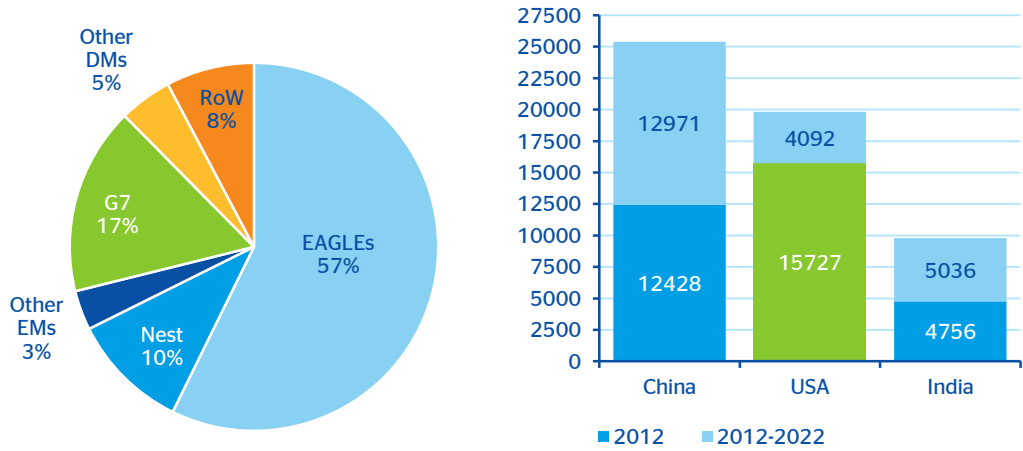


Source: BBVA Research and IMF

As a result of this forecast update some changes have taken place in the group composition and order (Charts 3&4 and Table 1):

- **The EAGLEs continue to be integrated by nine countries while 14 economies now belong to the Nest group.**
- Despite a slowdown with respect to previous forecasts, **India and especially China continue playing in another league**, explaining respectively a 12% and 32% of incremental world GDP between 2012 and 2022, over the US contribution of 10%.
- **Indonesia overtakes Brazil** as the third EAGLE in the ranking due to the weakening outlook for the latter, while better projections lead **Russia to overtake Korea**. **Turkey and Mexico keep their positions** and **Taiwan completes the group list** close to the threshold.

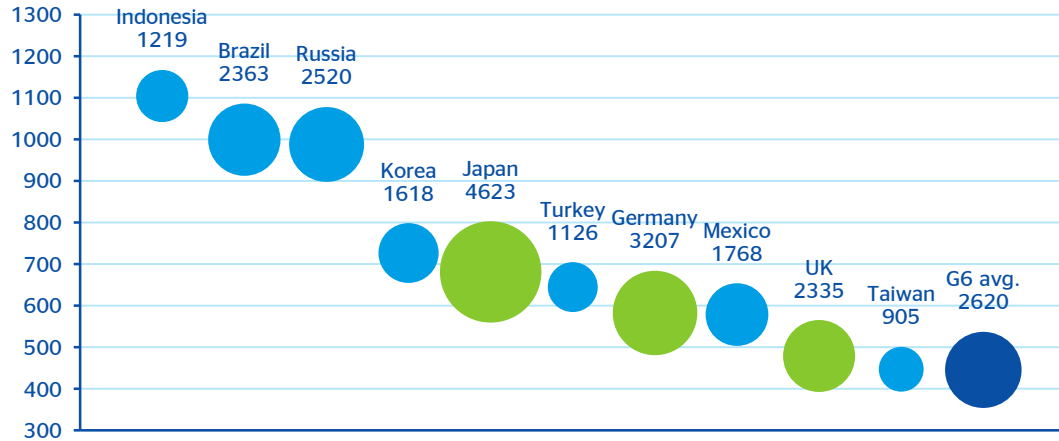
Chart 3
Incremental GDP between 2012 and 2022: % share of world growth and the 3 big players (bn USD)



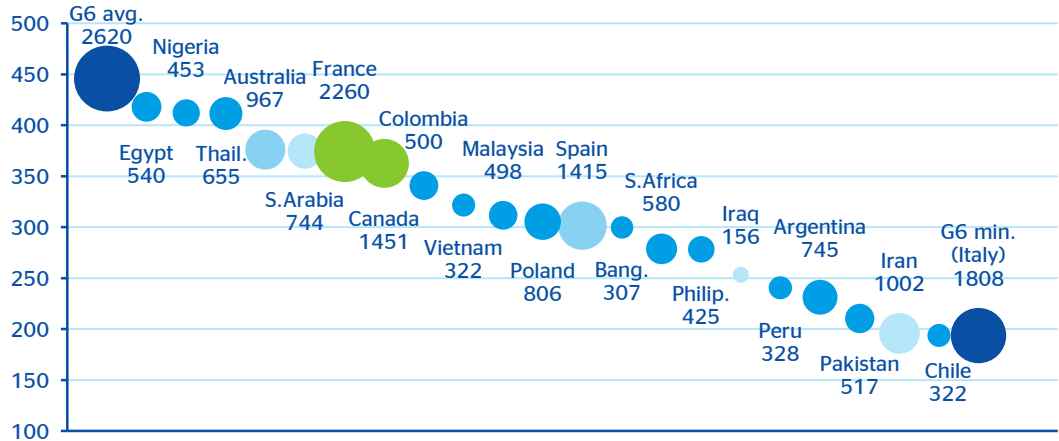
Source: BBVA Research and IMF

Chart 4
Incremental GDP between 2012 and 2022 in EAGLEs and Nest countries excluding China and India (bn USD) (y-axis)
Starting GDP in 2012 below country label (bn USD) (bubbles are proportional in each chart)

A. EAGLEs and G6 countries above the EAGLEs threshold



B. Nest countries and other economies above the Nest threshold and below the EAGLEs threshold



Source: BBVA Research and IMF

- Regarding the **Nest** countries, the most distinctive feature is that **Ukraine no longer belongs to the group**, coming back to the waiting list of 45 emerging markets only one year after being upgraded. Ukraine has lost its condition on a worsening outlook.
- Among the Nest group, ranking positions have changed significantly. **Egypt now shares the top with Taiwan. Nigeria moves forward and overtakes Thailand, and Vietnam and Malaysia overtake Poland.** On the negative side, **Pakistan and especially Argentina move to the back** closing the group list with Chile, slightly above the threshold due to its small size and not a worsening outlook.

Beyond EAGLEs and Nest members, it's worth highlighting that three other economies fulfill the Nest criteria, **Saudi Arabia, Iraq and Iran.** However, Saudi Arabia and Iraq are not listed as they are considered frontier rather than emerging markets, while Iran is excluded due to sanctions in force. We would like to recall that Iran fulfilled last year the EAGLE criteria, but forecasts have been revised downwards and the IMF now also expects a much lower real GDP growth for the following years (we estimate a 2012-2022 average of 1.8% in contrast with last year's 4.4%).

Regarding the waiting list, **Qatar and downgraded Ukraine are the countries that are closer to the Nest threshold** and would need to accelerate annual growth by around one percentage point to become members of this group.

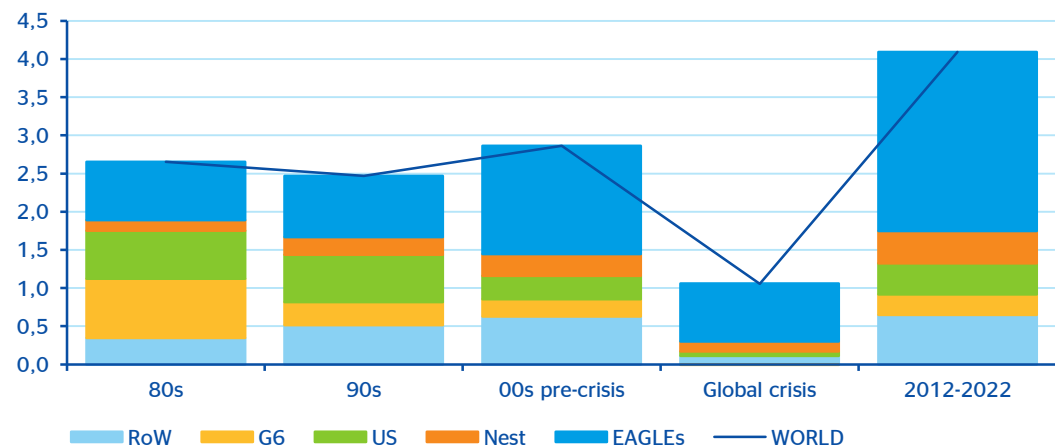
How do we see the world around the EAGLEs and Nest concept?

Regardless of changes to forecasts and even in the group lists, the essence of the EAGLEs prevails (see Box on robustness). They are **the main strength of world growth during the next ten years** (Charts 3&5 and Table 1):

- **EAGLEs will explain a 57% of incremental world GDP between 2012 and 2022**, 44 percentage points explained by China and India alone. The rest of contributions range from 1.1% by Taiwan to 2.7% by Indonesia.
- **The Nest group contributes a 10%**, above the G6 aggregate and with country shares ranging from 0.5% to 1.1%. Egypt, Nigeria and Thailand have a share over 1%, one tenth below the G6 average.
- **Other emerging markets in the 45 countries sample add close to 4%**; Qatar contributes the most with a 0.4%, followed by downgraded Ukraine (0.3%).

Chart 5

Contribution to GDP world growth (over PPP-adjusted 2012 USD) (percentage points)



Source: BBVA Research and IMF

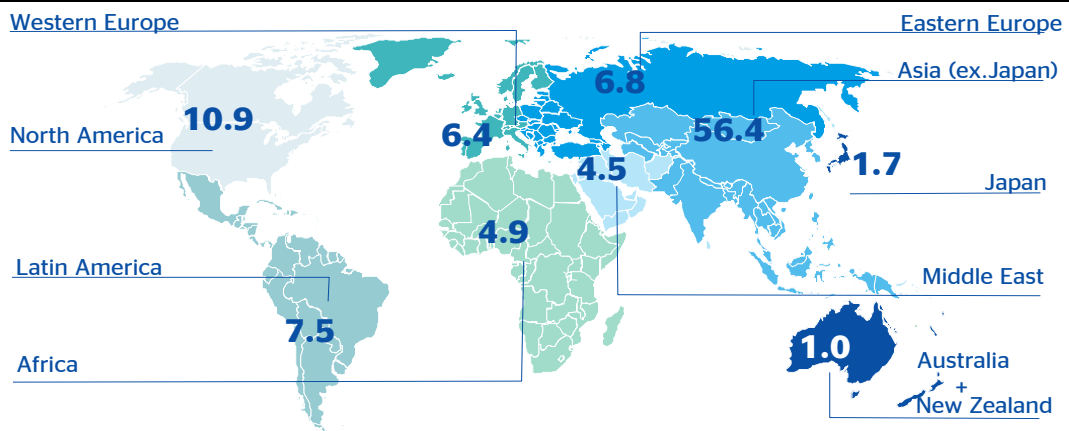
- **The G7 countries explain a 16% of expected GDP world growth;** most of this share corresponds to the USA (10%), while also Japan, Germany and the United Kingdom are above the EAGLEs threshold (1.1%). France and Canada are slightly below (0.9% each) and Italy lags behind (0.5%).
- **Other developed markets contribute 5%,** led by Australia (0.9%) and Spain (0.7%), both above Italy, and followed by Hong Kong and Singapore (0.4% each).
- The rest of the world (i.e. **frontier and developing economies**) accounts for **the remaining 8%**. Saudi Arabia accounts for a 0.9%, Iraq for a 0.6% and Iran for a 0.5%.

The salient features on a **regional basis** are reflected on the following (Map 1):

- **Asia ex-Japan contributes 56% to GDP world growth** in the next ten years.
- **The second growth engine is located in America,** with an expected contribution of **18%**, led by the US but also supported by expanding Latin American economies like Brazil, Mexico and the Andeans.
- Therefore, world growth confirms its **Pacific bias**, well above activity surrounding the Atlantic or the Indic Ocean.
- **Europe** will contribute a **13%**, of which **slightly more than a half corresponds to the Eastern side** (including EAGLEs Russia and Turkey).
- **Africa and Middle East sum up to 9%**, with key players in commodity markets.
- Finally, **Japan and Oceania explain less than a 3%**.

Map 1

Contribution to GDP world growth between 2012 and 2022 (%)



Source: BBVA Research and IMF

Table 1
Contribution to world growth between 2012 and 2022

Country	Real GDP (PPP-adj. 2012 bn USD)						Addendum: real GDP (2012 bn USD)*	
	2012	2022	2012-2022 change			2012-2022 change		
			value	%world	ann.avg. (%)	value	%world	
EAGLEs	China	12428	25399	12971	31.6	7.4	8627	28.7
	India	4756	9792	5036	12.3	7.5	2159	7.2
	Indonesia	1219	2324	1104	2.7	6.7	786	2.6
	Brazil	2363	3362	999	2.4	3.6	961	3.2
	Russia	2520	3508	988	2.4	3.4	766	2.5
	Korea	1618	2345	727	1.8	3.8	566	1.9
	Turkey	1126	1771	645	1.6	4.6	462	1.5
	Mexico	1768	2347	578	1.4	2.9	386	1.3
	Taiwan	905	1352	447	1.1	4.1	249	0.8
G6 average	2620	3066	446	1.1	1.6	517	1.7	
Nest	Egypt	540	958	418	1.0	5.9	197	0.7
	Nigeria	453	865	412	1.0	6.7	248	0.8
	Thailand	655	1066	412	1.0	5.0	244	0.8
	Colombia	500	840	341	0.8	5.3	246	0.8
	Vietnam	322	643	322	0.8	7.2	142	0.5
	Malaysia	498	810	312	0.8	5.0	200	0.7
	Poland	806	1111	305	0.7	3.3	178	0.6
	Bangladesh	307	607	300	0.7	7.1	116	0.4
	South Africa	580	858	279	0.7	4.0	188	0.6
	Philippines	425	704	278	0.7	5.2	173	0.6
	Peru	328	568	241	0.6	5.7	150	0.5
	Argentina	745	976	231	0.6	2.7	155	0.5
	Pakistan	517	727	210	0.5	3.5	94	0.3
	Chile	322	516	194	0.5	4.8	159	0.5
G6 min. (Italy)	1846	2039	194	0.5	1.0	215	0.7	
Groups	EAGLEs	28705	52200	23495	57.3	6.2	14961	49.7
	Nest	6996	11250	4254	10.4	4.9	2489	8.3
	Other EMs	3164	4588	1424	3.5	3.8	1062	3.5
	G7	31449	38215	6766	16.5	2.0	7196	23.9
	US	15727	19820	4092	10.0	2.3	4092	13.6
	G6	15722	18396	2674	6.5	1.6	3103	10.3
	Other DMs	7265	9171	1906	4.6	2.4	2293	7.6
	RoW	5535	8711	3176	7.7	4.6	2083	6.9
WORLD	83114	124136	41022	100	4.1	30083	100	

*Assuming exchange rates against USD move according to inflation differential with the US
Source: BBVA Research and IMF

Box: EAGLEs methodology and membership robustness

EAGLEs methodology

The starting point of our EAGLEs and Nest list is **a sample of 45 emerging economies and the G6 countries**:

- Some potential emerging economies are excluded because they are frontier markets, subject to international sanctions or at war.
- We exclude the US from the G7 because of its very large size. However, the US is always present in cross-country comparisons.

The reference variable is **the increase of real GDP in PPP-adjusted terms between 2012 and 2022**. To estimate it, we add the BBVA Research growth forecasts to the 2011 estimation of PPP-adjusted figures by the IMF. We use the IMF/WEO projections for countries for which we do not elaborate forecasts.

The contribution of each country to world growth is equal to the **incremental GDP**, i.e. the **difference between the GDP in 2022 and the one in 2012**. The EAGLEs approach is therefore **a mixture of size and growth**⁶.

Once we have ranked estimations according to the expected change in GDP:

- **The EAGLEs are defined as those emerging economies contributing to world growth more than the average of the G6 countries in the next ten years.**
- **The Nest group is formed by those emerging economies contributing more than the G6 country with the lowest contribution but below the EAGLEs threshold.**

The EAGLEs approach is therefore **flexible and dynamic**, implying that countries can enter or go out of both groups depending on their relative behavior with respect to the developed benchmark.

Membership robustness

In last year's annual report we tested the sensitivity of being an EAGLE or a Nest country to alternative scenarios and we observed that the EAGLE list is quite robust to risk scenarios. Only Mexico, Turkey and Taiwan were less than one percentage point above the growth rate threshold.

This year we check robustness comparing forecasts with other institutions. Particularly, we check the

membership condition of countries using equivalent forecasts by the **IMF, OECD and Consensus**⁷.

As in our last year's exercise, we find that **our outcomes are again highly robust** (Chart 6):

- **Long-term growth for EAGLEs and Nest is 5-6% on average, around three times the figure of the G6.** The IMF and the OECD are slightly more pessimistic on developed economies (especially for Germany and Japan). If this scenario realized it would give extra room for some emerging markets to enter the EAGLEs group (Nigeria, Egypt and Thailand).
- For emerging markets, **long-term growth rates overly coincide with our projections**, with negligible exceptions:
 - A **positive bias** of all sources (IMF; OECD; Consensus) with respect to Brazil, Mexico and especially Argentina. Also the average for Russia is above our forecast.
 - A **less optimistic scenario** of alternative sources in the cases of Colombia and Indonesia, as well as for India and Thailand.
- There are **very few country forecasts out of the growth thresholds to remain within the EAGLE or Nest groups**:
 - Consensus less positive forecasts for **Taiwan** would push the country from the EAGLEs to the Nest group, while **Chile** would lose its Nest condition under IMF and OECD projections.
 - **For other countries moving in tight margins** (below one percentage point from changing group), alternative forecasts favor the **stability of membership**.
- There is a broad consensus in believing that **EAGLEs enjoy an ample margin to remain growing above the G6 average**.
- Most of the **Nest countries** still face a substantial gap **to become an EAGLE** and for smaller economies, for now, it is simply an **unrealistic scenario**. However, **the likelihood of being downgraded is also limited** for most of them.
- Beyond, dynamics in emerging markets, **an improvement of G6 growth outlook** could decisively contribute to a change in the groups' composition. However, **other sources discard this alternative scenario** and show a slightly more negative picture both on average (the

⁶ A small country can be an outperformer in terms of growth but not belong to either the EAGLEs or the Nest group because of its size. However, this doesn't invalidate merits on macro stability or/and reforming agenda. It's just the result of our approach.

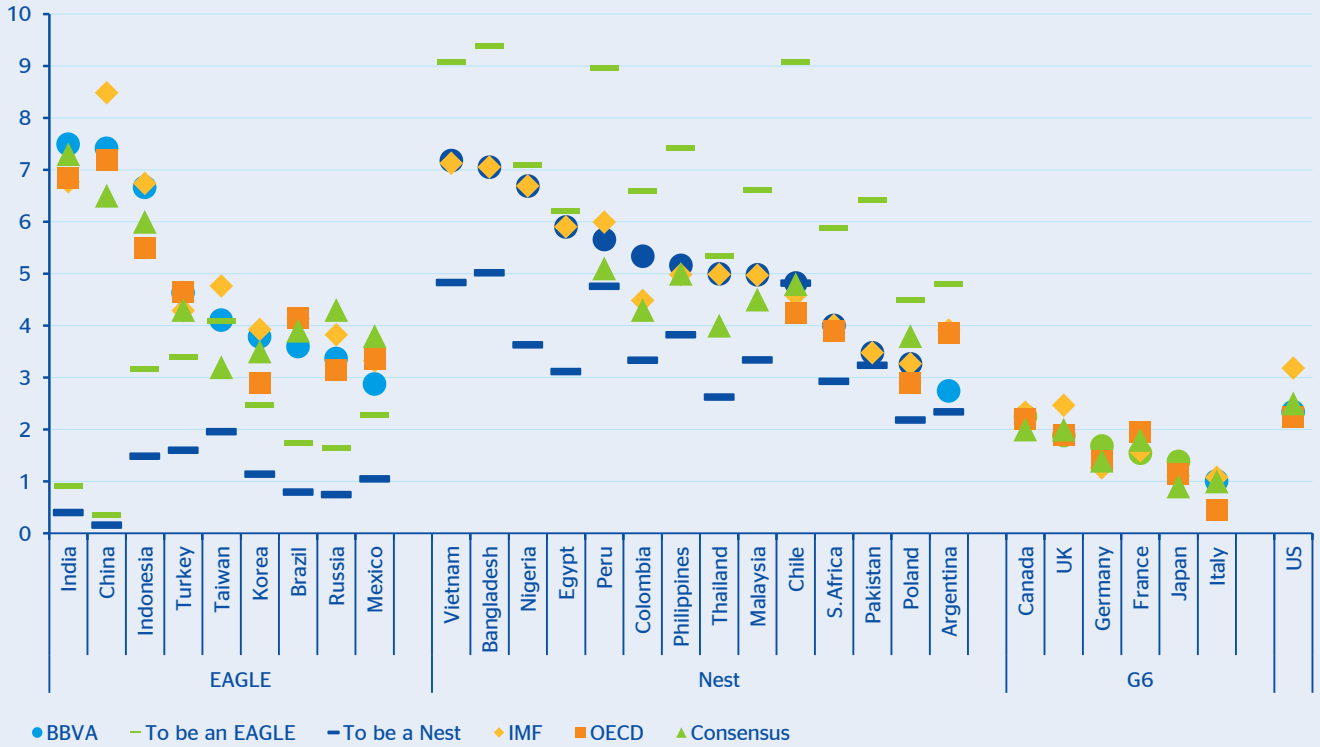
⁷: For the IMF we use data as explained in the methodology, for the OCDE we compute the average of the 2013-2017 and 2018-2030 periods, while for Consensus we include the average growth rate between 2013 and 2022.

EAGLEs threshold) and for the worst performer (the Nest threshold).

All in all, the comparison with forecasts of alternative sources reinforces the following idea:

- The **current structure** of the EAGLEs and Nest remains **overly stable**. If any, there will be room for some countries to be included if a more pessimistic scenario is realized for the G6 countries as anticipated by some alternative forecasts.

Chart 6
Growth forecasts and thresholds over the 2012-2022 period



Source: BBVA Research, IMF, OECD and Consensus

Long-term vulnerability assessment

In the 2012 annual report we made a thorough cross-country analysis on macroeconomic risks and socio-institutional challenges. We built up two different **vulnerability matrices**⁸:

- **Macroeconomic risks:** a/growth model risks, b/external demand risks, and c/ macro disequilibria.
- **Potential breaks to growth:** a/institutional factors, b/social unrest risks, and c/ inclusive growth challenge.

This year we have updated these matrices (Tables 2 and 3) with some minor adjustments related to poverty definitions, as we deem more convenient to use absolute and internationally homogenous measures rather than relative and domestically-defined benchmarks⁹. Therefore we have included the poverty headcount ratio of population living with less than USD 1.25 per day and USD 2 per day (both in PPP-adjusted terms).

Beyond this data clarification, we want to exemplify **issues related to risks and potential brakes to growth** with developments in some of the EAGLEs and Nest countries. Some of them have been highlighted in the first section:

- **Risks to the growth model:**
 - The Chinese government has recently announced that the **working-age population** declined in 2012 for the first time in recent decades. Demand of labor productivity gains will increase overtime, especially in China, Korea, Taiwan and Eastern Europe, with advanced aging demographics.
 - The quality of Poland's **infrastructure** improved on hosting the football Euro Cup in 2012, closing the gap with the EMs average; Brazil is at present below the benchmark, but an opportunity appears as a host country of the football World Cup in 2014 and the Olympic Games in 2016.
 - Quality of infrastructures is also the result of policy compromise with productivity fundamentals, as it was the case of Mexico improvement in 2012; the same applies for recent years to the increase of **tertiary education enrolment** in Peru or higher **R&D expenditure** in Korea. The contrary happens for example in Egypt under strong institutional uncertainty.
- **External demand risks:**
 - In general terms, **trade openness** is on the rise across emerging markets, increasing world competition but also intensifying the trade channel. Taiwan, Thailand, Vietnam and Malaysia present a ratio over 100% and Korea is close to this threshold.
 - Weakness in the developed world weights down on exports expansion for emerging markets. Contrary to this situation, **South-South trade flows** are on the rise, including growing China dependency, as it happened in 2012 for Vietnam and Peru.
 - **Commodity dependency** for exporters has increased slightly, with divergences in price behavior explaining country developments. On one hand, the CRB index fell in 2012 by 10% led by industrial metals. On the other hand, oil remained almost flat on a high average price, while some food products got more expensive on supply shocks (soybean, corn and wheat).
- **Macro disequilibria:**
 - **The fiscal outlook** has deteriorated for India and Pakistan, and according to recent developments, it will worsen in Egypt unless reforms are implemented (probably on demand for a financial deal with the IMF). Expected **external financing needs** have increased also for most of the countries with the highest current account deficit (Brazil, Indonesia, Poland and South Africa).

8: Section 2 in "EAGLEs Annual Report 2012", BBVA Research, February 2012.

www.bbva.com/RESEARCH/FILES/mult/120221_EAGLEs_Outlook_Annual_Report_2012_tcm348-287658.pdf?ts=1922013

9: We have also restricted year selection for World Development Indicators from the World Bank. Now we include only the last observation available in the period between 2008 and 2012.

- China and Turkey represent unusual **imbalance adjustments**. The change of growth model is pressing down Chinese current account surplus, while Turkish government approved last year a bunch of measures to increase the savings rate and to develop strategic investments that would allow the country to reduce external dependency on some products (including energy).
- In general terms, the **vulnerability picture** continues to be quite good compared to developed countries and risk thresholds.
- Following the last statement on macro disequilibria and coming back to trade (with increasing South-South relations), it is noteworthy to conclude that **trade-weighted vulnerabilities are decreasing for emerging markets**.
- **Institutional factors** are quite relevant for domestic activity and attraction of FDI flows. Policies and compromise can change them; they are not set in stone. This is the case of improving investment climate in Mexico, Taiwan and Malaysia during 2012, while the contrary happened in Argentina and Egypt.
- **Social unrest risks**:
 - **High food prices** continue to affect the least developed countries, with an increasing food importing bill for poor countries like Egypt, Nigeria, Vietnam and Bangladesh. In recent years, more expensive food has been at the ground of social unrest in several countries.
 - **Other factors contribute to social unrest**. Secondary school enrollment has declined in the last decade in Egypt, while at the same time youth unemployment rates hovered around 25-30%.
 - Sustained and high growth keeps a downward trend in **unemployment rates** in most of the EAGLEs and Nest countries during the last years. Labor markets are particularly tight in East Asia, while unemployment rates are significantly higher than average in Egypt, Poland and especially in South Africa (25%).
 - **Youth unemployment** rates are around 10 percentage points above headline figures. The gap is particularly high in South Africa, where the youth unemployment rate doubles the total one and is close to 50%. On the other hand, differences are marginal in several Asian countries as well as in Mexico, where headline and youth readings are almost the same.
- **Inclusive growth concerns** are shifting from poverty reduction to more uneven income distributions or persistent high inequality. Few countries have succeeded in fitting together rapid development and reducing inequality, but it seems that political concern is growing. In this sense, China has recently unveiled its new income distribution plan, including the strengthening of social safety nets and the raise of minimum wages.

Table 2
Macroeconomic risks matrix

Dimension	A. Growth model risks										B. External demand risks				C. Macro disequilibria			
	Variable	Growth acceleration [Avg growth 2012-221 / [2002-07] / BBVA-IMF	Expected labour force growth [2012-2022 / change in %] / UN	Expected labour force productivity growth [GDP/lab.force avg growth 2012-221 / BBVA-IMF-UN	Quality of overall infrastruct. [Indicator 1-7, 2012-13] / WEF	R&D expenditure [% expenditure / GDP, last in 5y] / WB	Tertiary education enrollment [% last in 5y] / WB	Relevance		Diversification		Flows		Stocks				
								Trade openness [X-M %GDP, 2011] / WTO / IMF	Expected trade partners growth [Weighted avg growth 2012-22] / BBVA-IMF	China exports dependency [% of total exports, 2011] / IMF	Commodity exports dependency [% of total exports, 2011] / WTO	Expected fiscal balance [2013-2017 average] / IMF	Expected external balance [2013-2017 average] / IMF	Public debt [%GDP, 2011] / IMF	External debt [%GDP, 2011] / WB-IMF			
	China	-4,0	0,0	7,5	4,3	1,5	25,9	49,9	3,5	n/a	6,5	-0,1	3,3	25,8	9,4			
	India	-1,3	1,5	7,1	3,8	n/a	17,9	42,0	3,8	6,2	34,9	-8,7	-2,6	67,0	18,3			
	Indonesia	1,4	1,1	6,5	3,7	0,1	23,1	44,6	4,3	11,3	66,2	-2,0	-2,6	24,5	25,2			
	Brazil	-0,2	0,9	3,2	3,4	1,1	36,1	19,8	3,9	17,3	64,2	-1,8	-3,2	64,9	16,2			
	Russia	-4,1	-0,9	3,5	3,5	1,3	75,9	45,7	3,3	6,5	77,5	-1,6	1,2	12,0	29,3			
	Korea	-0,7	-0,3	3,6	5,8	3,4	103,1	96,7	4,4	23,9	14,1	2,8	1,2	34,2	n/a			
	Turkey	-3,0	1,1	4,3	5,3	0,8	45,8	48,5	3,1	1,8	20,0	-1,6	-7,5	39,3	39,6			
	Mexico	-0,5	1,3	2,8	4,4	n/a	28,0	61,6	2,6	1,7	26,4	-2,0	-1,1	43,8	24,9			
	Taiwan	-1,1	n/a	n/a	5,5	n/a	n/a	126,4	4,7	27,2	10,3	-1,9	7,2	40,5	n/a			
	Egypt	0,9	1,7	5,3	3,8	0,2	32,4	37,9	3,6	2,0	52,8	-5,6	-2,3	76,4	14,8			
	Nigeria	-0,3	2,7	6,4	3,2	n/a	n/a	70,1	3,2	1,4	93,5	2,0	1,8	17,3	5,4			
	Thailand	-0,5	0,2	5,1	4,9	n/a	47,7	132,3	4,3	12,0	27,8	-3,0	0,8	41,7	23,2			
	Colombia	0,0	1,2	5,0	3,4	0,2	39,1	34,1	3,1	3,5	77,6	-1,1	-2,6	34,2	23,5			
	Vietnam	-0,8	0,8	6,8	3,2	n/a	22,3	165,9	3,8	12,0	34,5	-2,9	-1,2	50,4	47,1			
	Malaysia	-1,7	1,6	4,8	5,4	n/a	40,2	144,0	4,3	13,1	37,4	-4,6	6,2	52,9	32,8			
	Poland	-1,8	-0,9	3,2	4,0	0,7	70,5	76,8	2,3	1,0	21,9	-2,4	-3,6	56,3	n/a			
	Bangladesh	0,9	1,8	6,7	2,8	n/a	10,6	53,2	2,7	1,3	6,3	-2,9	0,2	n/a	23,8			
	South Africa	-0,9	0,6	3,8	4,5	0,9	n/a	53,5	3,8	12,8	50,3	-3,2	-5,9	38,8	27,8			
	Philippines	-0,2	2,0	5,1	3,6	n/a	28,9	49,8	3,8	12,7	19,7	-1,2	2,2	41,9	33,8			
	Peru	-0,7	1,4	5,6	3,4	n/a	43,0	47,6	3,6	18,2	66,6	1,2	-2,7	20,9	25,3			
	Argentina	-6,0	0,8	2,6	3,4	0,5	71,2	35,5	3,8	7,4	63,7	-1,9	-1,1	44,9	25,8			
	Pakistan	-2,3	2,1	3,3	3,4	0,5	5,4	33,0	3,7	7,5	28,6	-5,8	-2,8	60,2	28,6			
	Chile	-0,4	0,6	4,9	5,4	0,4	59,2	62,9	4,0	22,8	85,2	-0,3	-2,8	11,3	38,7			
	Over 45 EMs	Above avg	On average	Below avg														

EAGLEs

Nest

Table 3
Potential breaks to growth matrix

Dimension	A. Institutional factors				B. Social unrest risks					C. Inclusive growth challenge		
	Market	Public		State fragility	Food prices		Labour market		Income inequality	Poverty Headcount Ratio		
		Investment climate	Governance		Food imports dependency	Food in the consumption basket	Unemployment rate	Youth unemployment rate		Secondary education enrollment	[GINI index, last in 5y] / WB-UNWIDER	[at \$1.25 a day (PPP) (% of population), last in 5y] / WB
Definition and source	[Avg world ranking for 10 indicators, 1-185, DB 2013] / WB	[Average of 6 indicators, -2.5 to +2.5 2011] / WB	[General Index, 0-25, 2011] / CSP	% of GDP, 2011] / WTO-IMF	% CPI, 2012] / Haver	[in %, 2012] / Haver-IMF	[in %, last in 5y] / WB	[% , last in 5y] / WB				
EAGLEs												
China	95	-0,6	9	1,0	n/a	4,1	n/a	81,2	n/a	13,1	29,8	
India	121	-0,3	13	0,8	49,7	n/a	n/a	63,2	n/a	32,7	68,7	
Indonesia	112	-0,5	9	2,0	45,4	6,2	22,2	77,2	n/a	18,1	46,1	
Brazil	115	0,1	6	0,4	23,4	5,5	17,8	101,3	54,7	6,1	10,8	
Russia	102	-0,7	7	2,0	37,3	5,7	17,2	88,6	40,1	0,0	0,1	
Korea	24	0,8	0	2,3	13,6	3,2	9,8	97,1	n/a	n/a	n/a	
Turkey	80	0,0	9	1,4	26,2	9,0	21,7	77,6	39,0	0,0	4,2	
Mexico	70	-0,1	5	2,1	18,9	5,0	9,5	88,8	48,3	1,2	5,2	
Taiwan	35	1,0	0	2,4	26,1	4,2	n/a	n/a	n/a	n/a	n/a	
NEST												
Egypt	106	-0,7	12	5,8	39,9	12,7	n/a	72,5	30,8	1,7	15,4	
Nigeria	117	-1,1	18	3,3	51,8	n/a	n/a	44,1	48,8	68,0	84,5	
Thailand	42	-0,3	7	3,1	33,0	0,7	4,3	79,2	40,0	0,4	4,6	
Colombia	72	-0,2	11	1,5	28,2	10,4	23,0	96,4	55,9	8,2	15,8	
Vietnam	95	-0,6	9	7,4	39,9	4,5	n/a	77,2	35,6	16,9	43,4	
Malaysia	32	0,3	5	5,7	30,3	3,0	10,9	68,3	46,2	0,0	2,3	
Poland	79	0,8	0	3,1	24,2	12,8	23,7	97,0	34,1	0,1	0,2	
Bangladesh	116	-0,9	12	5,9	n/a	n/a	n/a	51,4	32,1	43,3	76,5	
South Africa	65	0,3	6	1,5	18,3	24,9	48,2	93,8	63,1	13,8	31,3	
Philippines	117	-0,5	11	2,9	39,0	7,0	17,4	82,0	43,0	18,4	41,5	
Peru	64	-0,2	7	2,2	26,1	6,8	14,0	91,4	48,1	4,9	12,7	
Argentina	115	-0,2	1	0,4	37,9	7,2	21,2	88,5	44,5	0,9	1,9	
Pakistan	108	-1,1	16	2,5	34,8	7,7	7,7	34,2	30,0	21,0	60,2	
Chile	55	1,2	2	2,2	18,9	6,5	18,6	87,9	52,1	1,4	2,7	
Over 45 EMs	Above avg	On average	Below avg									

3. The role of 'emerging' people in sustainable growth

Population is a **key element when defining economic forecasts and potential growth**:

- On the **supply side**, labor is included in the **aggregate production function**. Several factors condition this relevant role:
 - The **labor could be decomposed** into the employment rate (one minus the unemployment rate), the participation rate, the share of working age population and total population.
 - Therefore, on a long-term horizon, labor is **a summary of labor market and social conditions, as well as of demographics**.
 - Additionally, population enters the production function through **education and productivity**.
- On the **demand side**, households' effective expenditure accounts for the majority of final demand, including private and public consumption (effective consumption), as well as housing investment. The level of income per capita and the size of **middle classes** condition the demand of certain goods and services. **Purchasing power is the key variable, but others play a role, like aging, extension of social protection and financial access**.

Although implications go beyond this simple approach, these dimensions are enough to introduce the main population and socioeconomic trends in emerging economies:

- **Aging population**: demographics have been providing fuel for growth for many decades in emerging economies. The so-called '**population premium**' is still present in most of them, but it is progressively fading away. **The contribution of working age population is decreasing** and is even negative in some countries, like China, Korea and Eastern Europe. In order to sustain high growth rates, economies will have to offset this effect with **further capitalization and/or a boost to total factor productivity** (mainly related to education, technology and infrastructure, as well as to institutional factors). Immigration flows and/or the increase of participation rates, especially in the female segment, could also play a compensation effect when labor markets are very tight.
- **Declining household size** is strongly linked to economic development. As living standards improve, the decline in fertility rates and the increase of one-family households increase rapidly reducing the household size. **The impact of aging in the number of households is therefore softened**. This phenomenon has relevant implications for the consumption of certain products and the demand for housing.
- **Urbanization**: as low-income countries develop, a significant share of rural population has been moving to urban areas. This transition entails **an increase of productivity as the primary sector loses weight and industry develops with the new workforce**. The urban industrialization brings two relevant implications. On one hand, productivity gains usually transform into increasing real wages, while on the other hand, population **concentration generates service activities**, like retail stores, transportation..., which eventually become the bulk of the economic activity.
- **Increasing middle class**: countries able to transform a primary-driven economy into a competitive industrial one with a broad-based service sector certainly improve the welfare of their population through **job generation**. A sustained high growth since the beginning of the current century in emerging economies has taken a vast amount of people out of poverty, allowing **the birth and rapid growth of middle classes**. In our baseline scenario this trend is already in place and will accelerate in following years, with an increasing role of wealthier citizens.
- **Changes in consumption patterns**: increasing purchasing power brings relevant shifts in the composition of the consumption basket. Low-income countries present a higher share of food expenditure, while **when they climb development stages they relatively**

increase consumption of discretionary products (e.g. cars) as well as housing expenditure. These changes are eased and fueled by extending **financial inclusion**.

What is the connection between demand and supply factors linked to population? As we have noted at the beginning of this section, **potential growth is progressively losing its 'population premium' and economies need to scale up in the value chain. This transformation could be supported by the extension of middle classes.** Increasing purchasing power and changing consumption patterns ideally provide economies of scale, foster competition, promote innovation, increase education levels, broaden the fiscal base and augment the stock of intermediated savings.

Policies are key elements to deal with challenges stemming from rapid growth:

- **To avoid the risk of middle-income traps** during these processes. They have to provide the ground for productivity gains and prevent bottlenecks, as well as to limit inequality and excessive leveraging.
- Increasing activity and consumption, as well as **population and urbanization pressure** make energy, **transport and infrastructure key areas to follow**.

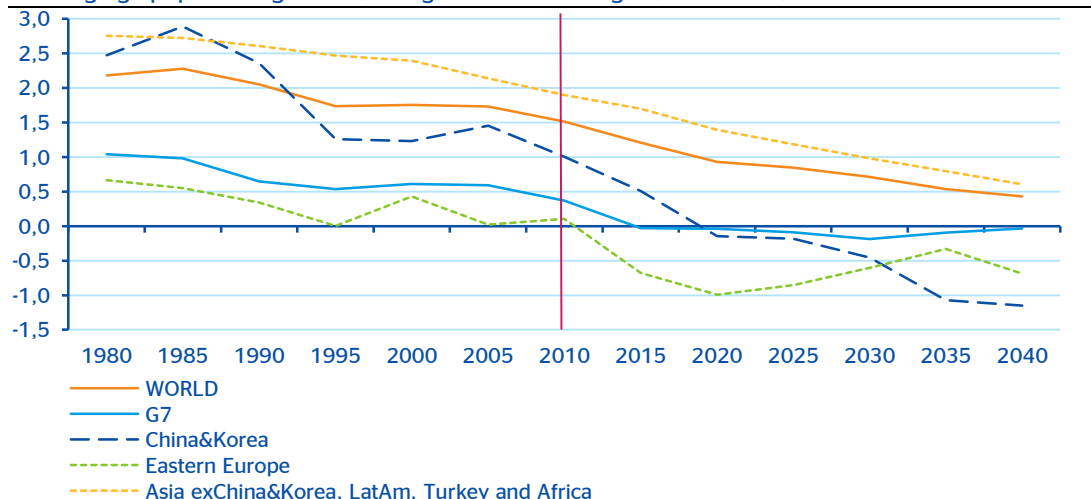
Aging is not exclusive of developed economies

Common knowledge on demographics is usually referred to the risks and challenges from aging societies in developed countries. However, less attention has been devoted so far to developments in emerging economies¹⁰.

As it happens with many other issues, taking emerging economies as a homogenous bloc leads to very misleading conclusions. Therefore here we **group countries according to their stage in the demographic transition** (Charts 7&8):

- The **G7 economies**: after the baby-boom between the 50s and 70s, **population growth** started to slow and it would be currently **turning negative** in countries like Germany and Japan. A peak for the 15-64 years share was reached around the 60s and working age population will remain stagnant for the following decade, only offset by immigration flows.

Chart 7
Working-age population growth (average annual % change) (1980-2040)



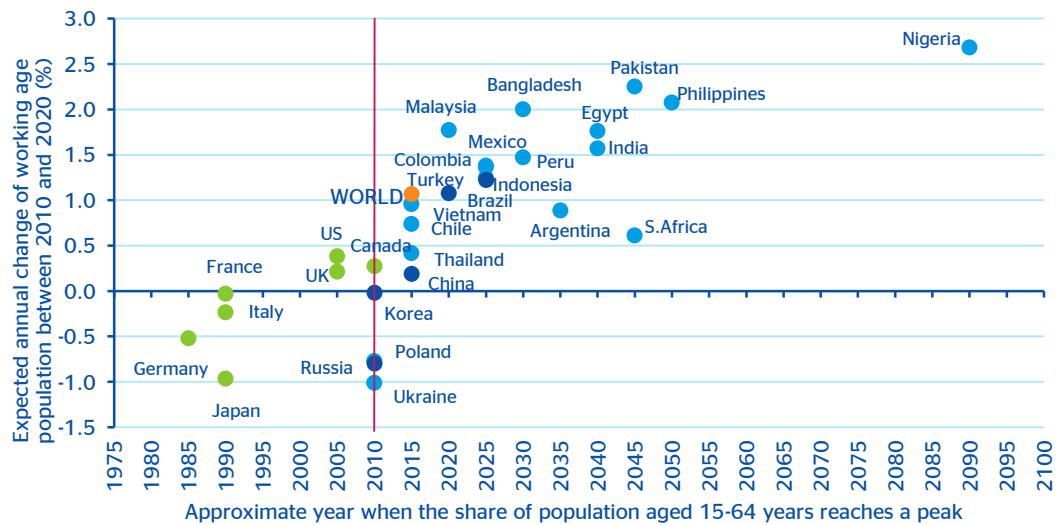
Source: BBVA Research and UN

10: "Demographic transition in the EAGLEs: a premium and a challenge at the same time", EAGLEs Economic Watch, BBVA Research, June 2012.
www.bbva.com/research/KETD/fbin/mult/120601_EW_Population_Premium_Risks_tcm348-331759.pdf?ts=522013

- **Eastern Europe:** total and working-age population has remained relatively stagnant since the end of the 80s (the fall of Communism). According to the UN projections, the share of 15-64 years would have already reached its peak in this area (around 2010), expecting now a contraction of both total and working-age population.
- **China, Korea and Taiwan:** these countries are experiencing the most dramatic demographic changes among the EAGLEs and Nest countries. Their working-age population was growing by 2-3% in the 80s and 1-2% in the 90s-00s, while we now expect them to experience a contraction at the end of this decade.
- The rest of EAGLEs and Nest countries in the sample (**Asia excluding China, Korea and Taiwan, Latin America, Turkey** and Africa): they represent the kind of benchmark associated with emerging countries. Their 'population premium' is still large, estimated at around 2% annual growth of working age population at present. The peak for the 15-64 years share wouldn't be reached until the 30s of this century. The working-age population will keep on growing for some decades but the positive impact will progressively fade away by around 0.5pp per decade.
- Other countries: **population pyramids present a very wide base in other African and Middle Eastern economies.** This is a very relevant feature when considering the context of the Arab Spring started in 2011. In the case of the GCC countries, the specificity has to do more with immigration, as it has introduced a very large bias towards working age male population.

Chart 8

Stage of demographic transition referenced to working-age population



Source: BBVA Research and UN

Extreme cases apparently bring different **challenges**, although eventually the task is about generating growth:

- Countries where the 'population premium' is still playing a relevant role have **very demanding job demographics**. Social unrest as in the Arab Spring is a worst case scenario when policies are unable to generate economic growth enough to cover job demand by young population.
- Economies with a **stagnant or declining working-age population** need to find other growth sources if they want to keep potential. This means **fostering education, technology and infrastructures, as well as increasing the capital stock**. The need is larger in those countries with already tightened labor markets, but there might also be room for increasing participation rates, especially in the female segment, or reducing the natural unemployment rate through labor markets reforms.

Beyond these growth considerations, **aging societies bring formidable challenges to policy makers**. According to the life-cycle theory, the rate of private savings declines along with a larger share of retired workers, limiting domestic resources for productive investment,

although the decline in house demand should compensate somewhat. At the same time, health and pension expenditure weights more in the fiscal budget, reducing the rate of public savings if no new revenue is generated. Each country has to assess well in advance how to prepare for these challenges.

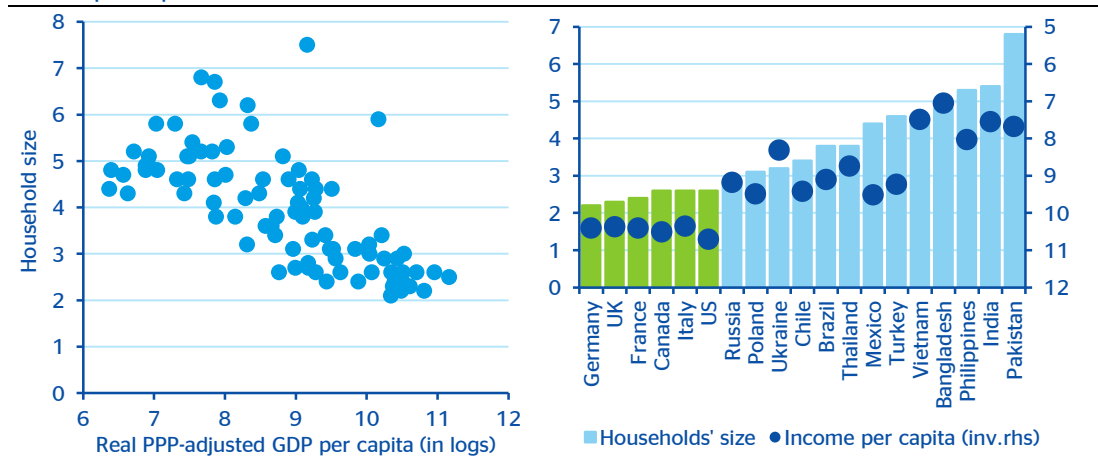
Declining household size

Most of the leading emerging economies are now enjoying the third stage in the demographic transition, characterized by a **rapid decrease in the household size**. There is a mixture of socioeconomic and health reasons for this but the evidence suggest that rising incomes, urbanization, increased levels of female education and greater employment opportunities for women are important factors driving this transition. As can be observed in Chart 9:

- There is a strong negative correlation between households' size and income per capita, especially when economies transition from the low to the middle income area.
- The **G7 countries** average **2.5 members**, Eastern Europe countries around 3, other emerging middle-income economies 4 and **the least developed 5 or more**.

The decline of households' size is very relevant as **it softens the impact of aging on consumption of certain products** (e.g. cars) **as well as on housing demand**. In all these markets, the number of households is the reference variable rather than total population.

Chart 9
Income per capita and size of households (c.2000)



Source: BBVA Research, IMF, UN and WB

Migration to cities: rapid urbanization process

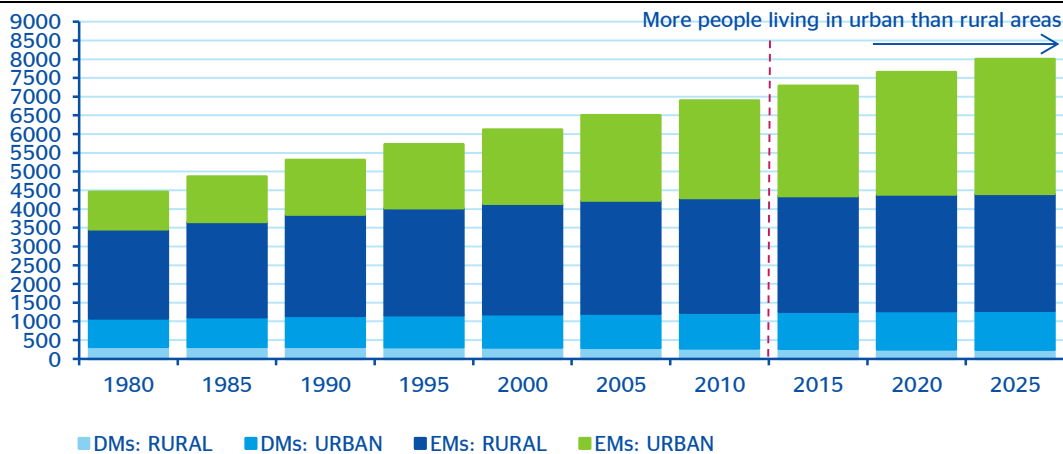
During the past few decades, the world has been undergoing a **significant increase in the share of urban population**. Information for all countries is available at the UN since 1950:

- Given higher starting levels, the process in **developed economies** has been more **moderate** and has been losing momentum as saturation levels are achieved at around 80-90% of total population.
- For the **EAGLEs and Nest aggregate**, the process accelerated in the 80s and 90s and has reached the **highest speed at the beginning of the 21st century** fueled by East Asian economies, China in particular (Chart 10):
 - According to UN estimations, there is still **wide room for further urbanization**. In 2010, the share of urban population was already high in Latin America and Korea (over 80%), but there is a gap in Eastern Europe and Turkey (70%), larger in East Asia and Africa (around 50%) and especially in South Asia (slightly above 30%). At the beginning of this decade, 2.3 billion people were still living in rural areas in the EAGLEs and Nest countries.

- UN forecasts anticipate this gap will continue closing in following decades. Again, East Asia is expected to go faster, but South Asia, led by India, will contribute more to increase world urban population. **Around 400-500 million people could be added to urban population in EAGLEs and Nest countries during the current decade** and a similar figure is expected for the following one.

Chart 10

Population according to residence area in developed (DMs) and emerging economies (EMs) (millions)



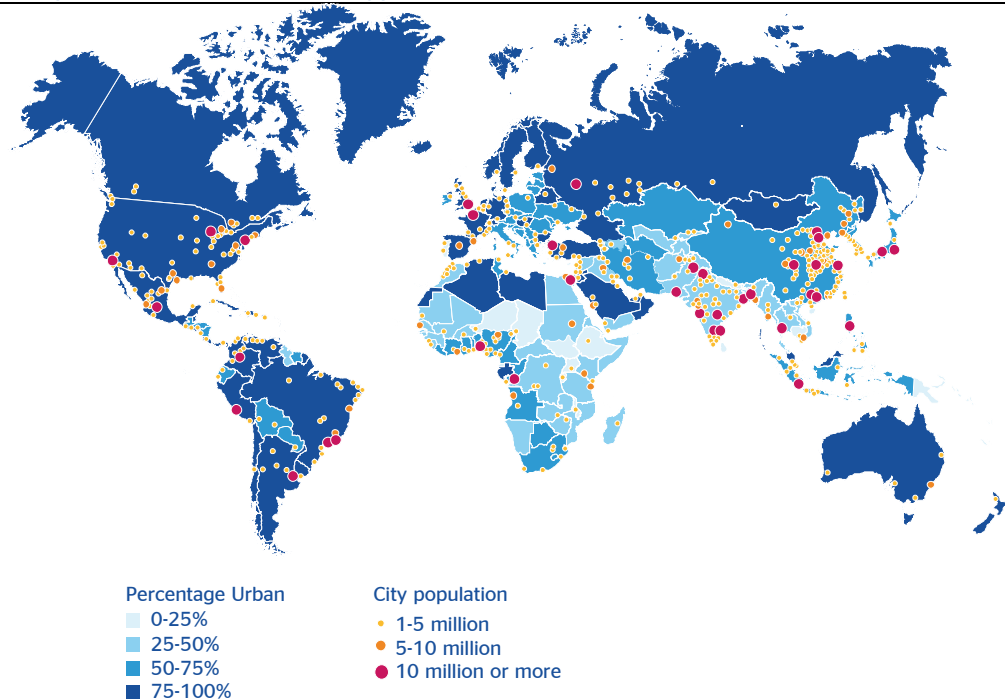
Source: BBVA Research and UN

- As the population progressively concentrates in urban areas and the volume of people generally increases as well, **agglomerations will extend**, especially in the South-East Asian coast (Map 2). In 1980 there were less than 200 cities in the world with more than 1 million people. In 2010 this number had more than doubled and is expected to reach around 600 cities by the end of the current decade, a third of which will be located in China and India.

Urbanization processes are associated with **a transition from primary to secondary activities and then to services:**

- For the average of **EAGLEs and Nest countries**, agriculture has decreased its share from more than 30% in the 60s to current 10%. On the contrary, **the share of industry in GDP jumped during the 60s and 70s** from around 25% to 35%, remaining relatively stable afterwards. **The real jump in services came in the 90s**, when the sector became more than a half of the economy from previous levels slightly above 40%.
- **Country differences** are significant:
 - **East Asia is the most 'industrialized' area**, with an average sector share above 40% and figures more close to 50% in China and Indonesia. Countries in the rest of the regions show readings around 30%, with figures below in least developed South Asia and above in 'mining' Chile and Peru.
 - **Latin America, Emerging Europe and South Africa are the most 'tertiarized' economies**, with a service share around or above 60%. Finally, South Asian economies and Vietnam still present an agriculture share around 20%.
- **Besides opportunities, rapid urbanization and agglomeration in cities will pose some important challenges for emerging markets policymakers.** Efficient logistics to avoid traffic congestion, pollution and provide adequate public services will be in the agenda during the coming years.

Map 2

Percentage of urban population and agglomerations by size class (2025)

Source: UN (http://esa.un.org/unup/Maps/maps_urban_2025.htm)

The growing middle class: wealthier and wealthier

Emerging economies have been considered for long as high growth and high risk markets. This paradigm has been redefined after **10-15 years of sustained and significant dynamism**, as a result of **macro stability and prudent policies adopted after successive and severe crisis** during the 80s and 90s in Latin America, Asia, Russia and Turkey.

This radical change has been clearly for the sake of people. GDP per capita has climbed in emerging economies by around 6% since 1980 led by Asia. **Job creation and the increase of real wages** have pushed up considerably the purchasing power of the population. Other supporting factors have been the reduction of dependent population and the decline of the size of households, as well as the implementation of distribution policies under a more favorable environment for fiscal revenues.

It is worth highlighting the steps of the ongoing income transition in emerging economies:

- **Poverty rates have steadily declined since 1980, especially in Asia¹¹**. The start of the new century can be considered a key turning point because poverty reduction turned from relative to absolute terms in most of the emerging world. According to international homogeneous definitions by the World Bank, the number of people living below 2 dollars per day in PPP-adjusted terms reduced by more than 400 million between 2000 and 2010. **China explains three quarters of this change**. However, there are areas where the problem is far from being solved. This is the case of India and African countries in the sample due to demographic pressure and where multidimensional poverty is a big issue.
- While the number of poor people declines, the **middle class is expanding fast in emerging economies¹²** (Chart 11). As it happened with absolute poverty reduction, the increase was progressive during the 80s and 90s and the turning point was the beginning

11: "Inclusive growth in emerging markets? Rapid poverty reduction but increasing inequality", EAGLEs Economic Watch, BBVA Research, January 2013.

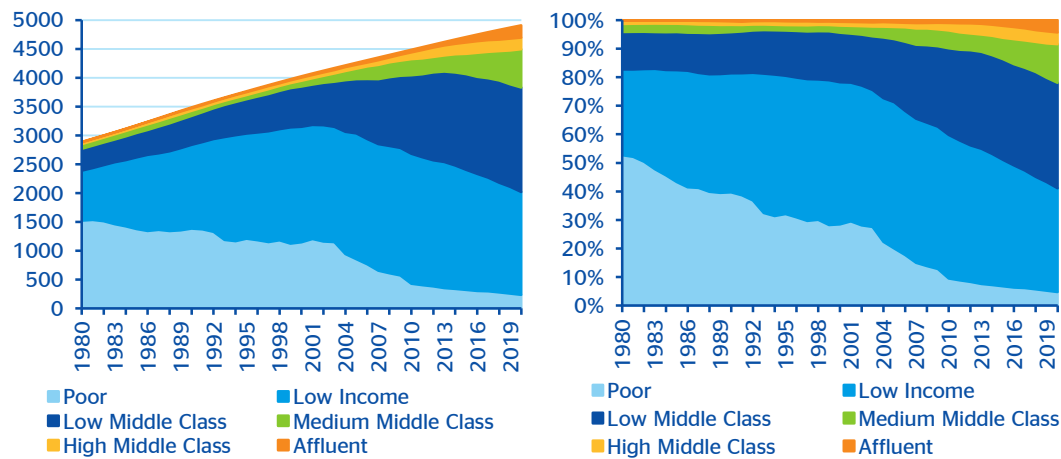
www.bbva.com/research/KETD/fbin/mult/130107_EW_EAGLEs_Inclusive_Growth_tcm348-364126.pdf?ts=522013

12: "Emerging middle class in "fast-track" mode", EAGLEs Economic Watch, BBVA Research, January 2013.

www.bbva.com/research/KETD/fbin/mult/EWMiddleClasses_v24jan13_tcm348-371705.pdf?ts=522013

of the 21st century. **The explosive process is already underway and it will accelerate this decade according to our own estimations.** The low middle class was the first to boom in the 00s and now the focus is on transition to wealthier segments. On a regional basis, **Asia is leading the process**, with an increasing share in world emerging middle classes (50-60% expected for East Asia in 2020). They are overtaking areas where these income segments have more tradition, like Latin America. **The time for India will come the next decade as it follows the pattern of China with a 12 to 15 years lag.** Other countries with an impressive fast-track record are Peru in Latin America and Turkey in Emerging Europe.

Chart 11
Population according to GDP per capita range* in EAGLEs and Nest countries (millions and % share)



*Affluent are over 40,000 PPP-adjusted 2010 USD per year, High Middle Class between 25,000 and 40,000, Medium Middle Class 15,000-25,000, Low Middle Class 5,000-15,000, Low Income 1,000-5,000 and Poor below 1,000.
Source: BBVA Research

The other side of the coin in poverty reduction seems to be inequality. The historical record in the last two decades suggests that the increase in **inequality is a by-product of rapid growth**¹³:

- There are **few examples of economies with a significant GDP growth and a more even income distribution**, limiting successful stories to Brazil and Turkey.
- Although a **certain degree of inequality is good** for competition, effort and risk-taking behavior, **excessive levels damage efficiency and growth in the long-term**. The latter is in fact the key driver of poverty reduction.
- The experience of advanced economies shows that **distribution policies help to partially counteract primary inequality**, but recent times also talk about their limitations in tackling the problem.
- Inequality can be more problematic over time for world policymakers as **new information technologies have increased the potential for social unrest**.

New middle class not only to drive global consumption but to change composition

The income transition is delivering very significant changes in households' expenditure patterns. As purchasing power increases, families assign **a declining share of their income to food**, whereas they relatively spend more money in other goods and services.

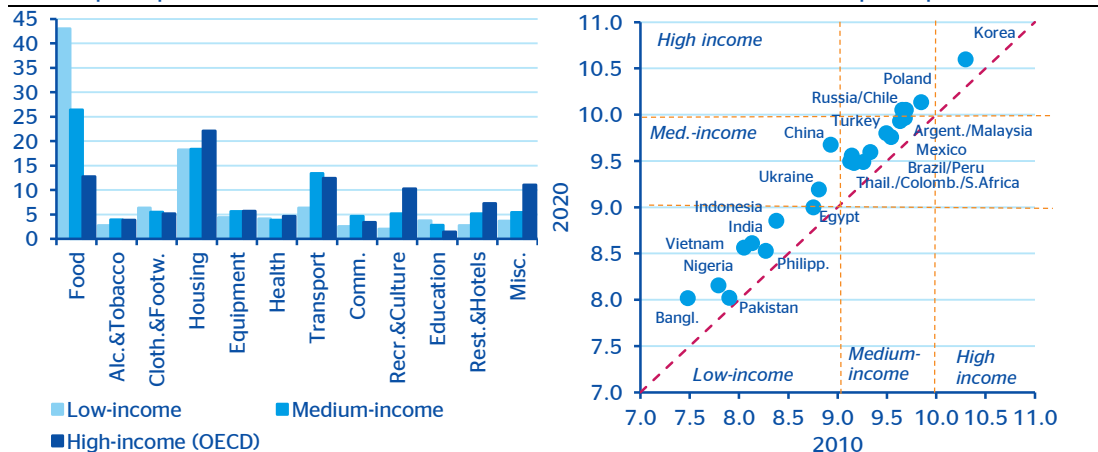
We can identify the following key changes taking the GDP per capita as a valid proxy of the extension of middle classes¹⁴ (Chart 12):

13: See footnote 11.
14: See footnote 12.

- In the transition **from a low to a middle-income country** the reduction of the food share is compensated by the **increase of expenditure in transport, communications, leisure, personal products and financial services** (the so-called discretionary expenditure).
- Transition **from middle to high-income extends the increase of discretionary expenditure** but not in transport and communications products, and also witnessing a rise in housing consumption.

Chart 12

Consumption patterns and income transition* in EMs (% of CPI basket and GDP per capita)



* Low-income include countries with GDP per capita between 2,000 and 8,000 PPP-adjusted 2010 USD (up to 9 in log terms), medium-income comprise the income range between 8,000 and 22,000 USD (between 9 and 10 in log terms) and high-income countries are those above 22,000 USD.

Source: BBVA Research and Haver

According to current levels of GDP per capita and expectations for the following ten years, **China** is already undergoing a key transition from low to middle-income levels, with **dramatic implications for both the absolute value of consumption and**, not less importantly, **for its composition**. Other relevant income transitions are taking place:

- **Peru and Colombia** are consolidating their way out of low income levels.
- Up to five countries are **candidates to move** this decade **towards high income levels**: Argentina, Chile, Malaysia, Poland and Russia.
- Some years later we will have to keep an eye on **the first transition for India and Indonesia**, and **the second one for Mexico and Turkey**.

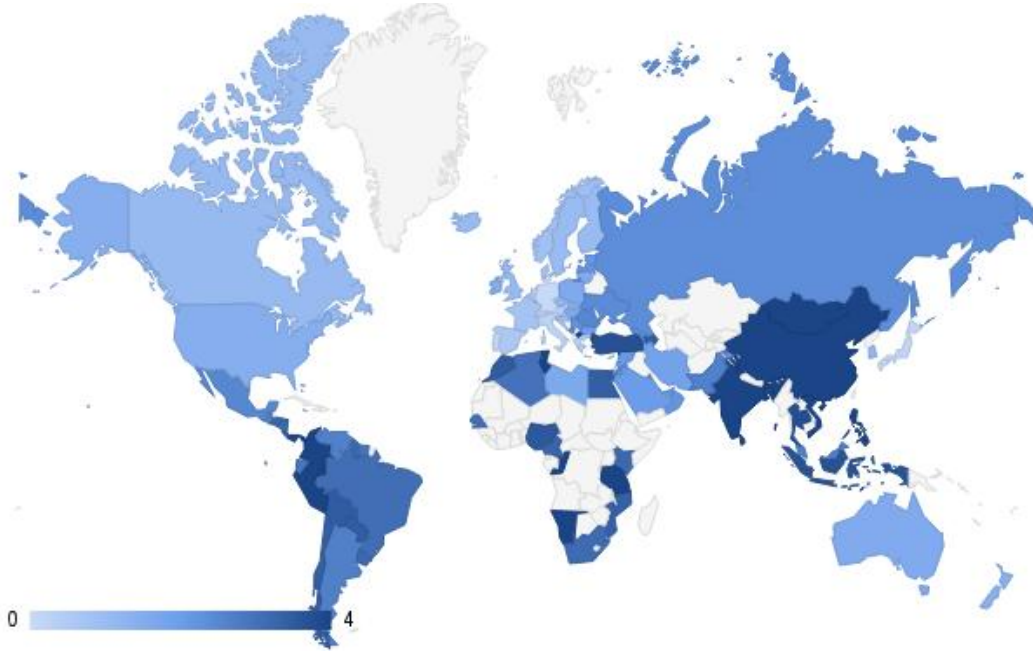
The auto industry is a good example of how these transitions have significant implications on a micro and macro dimension, as well as having spillovers in other sectors or markets¹⁵ (Map 3):

- According to our estimations, **between 2000 and 2010** the world car fleet increased by more than 200mn units, of which **more than two thirds corresponded to EAGLEs and Nest countries**.
- We forecast **the increase to accelerate** up to 350mn units this decade, **a half of which will come from China**, becoming the country with the largest car fleet in the world.
- Even **in 2020 the room will still be large**, as, in addition to a much larger population in emerging economies, we expect the car ownership ratio to be around 100-150 units per 1,000 people compared to 500 units in developed countries.
- Such a big shift in the world car fleet is already requiring **better and more extensive road infrastructures, as well as the increase in petrol consumption to fuel cars**.

15: "Emerging markets key for the automobile sector. A BBVA Research model for long-term automobile projections", EAGLEs Economic Watch, October 2012.

www.bbva.com/BBVAResearch/KETD/fbin/mult/121010_EAGLEs_AutoProjections_EN_tcm348-359255.pdf?ts=522013

Map 3
World markets according to annual growth of the car fleet between 2010 and 2020
(0=minimum up to 1%, 1=1-2%, 2=2-4%, 3=4-7%, 4=above 7%)



Source: BBVA Research

DISCLAIMER

This document and the information, opinions, estimates and recommendations expressed herein, have been prepared by Banco Bilbao Vizcaya Argentaria, S.A. (hereinafter called "BBVA") to provide its customers with general information regarding the date of issue of the report and are subject to changes without prior notice. BBVA is not liable for giving notice of such changes or for updating the contents hereof.

This document and its contents do not constitute an offer, invitation or solicitation to purchase or subscribe to any securities or other instruments, or to undertake or divest investments. Neither shall this document nor its contents form the basis of any contract, commitment or decision of any kind.

Investors who have access to this document should be aware that the securities, instruments or investments to which it refers may not be appropriate for them due to their specific investment goals, financial positions or risk profiles, as these have not been taken into account to prepare this report. Therefore, investors should make their own investment decisions considering the said circumstances and obtaining such specialized advice as may be necessary. The contents of this document are based upon information available to the public that has been obtained from sources considered to be reliable. However, such information has not been independently verified by BBVA and therefore no warranty, either express or implicit, is given regarding its accuracy, integrity or correctness. BBVA accepts no liability of any type for any direct or indirect losses arising from the use of the document or its contents. Investors should note that the past performance of securities or instruments or the historical results of investments do not guarantee future performance.

The market prices of securities or instruments or the results of investments could fluctuate against the interests of investors. Investors should be aware that they could even face a loss of their investment. Transactions in futures, options and securities or high-yield securities can involve high risks and are not appropriate for every investor. Indeed, in the case of some investments, the potential losses may exceed the amount of initial investment and, in such circumstances, investors may be required to pay more money to support those losses. Thus, before undertaking any transaction with these instruments, investors should be aware of their operation, as well as the rights, liabilities and risks implied by the same and the underlying stocks. Investors should also be aware that secondary markets for the said instruments may be limited or even not exist.

BBVA or any of its affiliates, as well as their respective executives and employees, may have a position in any of the securities or instruments referred to, directly or indirectly, in this document, or in any other related thereto; they may trade for their own account or for third-party account in those securities, provide consulting or other services to the issuer of the aforementioned securities or instruments or to companies related thereto or to their shareholders, executives or employees, or may have interests or perform transactions in those securities or instruments or related investments before or after the publication of this report, to the extent permitted by the applicable law.

BBVA or any of its affiliates' salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to its clients that reflect opinions that are contrary to the opinions expressed herein. Furthermore, BBVA or any of its affiliates' proprietary trading and investing businesses may make investment decisions that are inconsistent with the recommendations expressed herein. No part of this document may be (i) copied, photocopied or duplicated by any other form or means (ii) redistributed or (iii) quoted, without the prior written consent of BBVA. No part of this report may be copied, conveyed, distributed or furnished to any person or entity in any country (or persons or entities in the same) in which its distribution is prohibited by law. Failure to comply with these restrictions may breach the laws of the relevant jurisdiction.

In the United Kingdom, this document is directed only at persons who (i) have professional experience in matters relating to investments falling within article 19(5) of the financial services and markets act 2000 (financial promotion) order 2005 (as amended, the "financial promotion order"), (ii) are persons falling within article 49(2) (a) to (d) ("high net worth companies, unincorporated associations, etc.") Of the financial promotion order, or (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the financial services and markets act 2000) may otherwise lawfully be communicated (all such persons together being referred to as "relevant persons"). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons. The remuneration system concerning the analyst/s author/s of this report is based on multiple criteria, including the revenues obtained by BBVA and, indirectly, the results of BBVA Group in the fiscal year, which, in turn, include the results generated by the investment banking business; nevertheless, they do not receive any remuneration based on revenues from any specific transaction in investment banking.

BBVA is not a member of the FINRA and is not subject to the rules of disclosure affecting such members.

"BBVA is subject to the BBVA Group Code of Conduct for Security Market Operations which, among other regulations, includes rules to prevent and avoid conflicts of interests with the ratings given, including information barriers. The BBVA Group Code of Conduct for Security Market Operations is available for reference at the following web site: www.bbva.com / Corporate Governance".

BBVA is a bank supervised by the Bank of Spain and by Spain's Stock Exchange Commission (CNMV), registered with the Bank of Spain with number 0182.

This report has been produced by the Cross-Country Emerging Markets Analysis Unit:

Chief Economist for Cross-Country

Emerging Markets Analysis

Álvaro Ortiz

alvaro.ortiz@bbva.com

Gonzalo De Cadenas

gonzalodecadenas@bbva.com

David Martínez

dmartinez@bbva.com

Alfonso Ugarte

alfonso.ugarte@bbva.com

BBVA Research

Group Chief Economist

Jorge Sicilia

Emerging Markets:

Alicia García-Herrero

alicia.garcia-herrero@bbva.com.hk

Cross-Country Emerging Markets Analysis

Álvaro Ortiz

alvaro.ortiz@bbva.com

Asia

Stephen Schwartz

stephen.schwartz@bbva.com.hk

Latam Coordination

Juan Ruiz

Juan.ruiz@bbva.com

Argentina

Gloria Sorensen

gsorensen@bbva.com

Chile

Alejandro Puente

apuente@bbva.com

Colombia

Juana Téllez

juana.tellez@bbva.com

Peru

Hugo Perea

hperea@bbva.com

Venezuela

Oswaldo López

oswaldo_lopez@bbva.com

Mexico

Carlos Serrano

carlos.serranoh@bbva.com

Macroeconomic Analysis Mexico

Carlos Serrano

carlos.serranoh@bbva.com

Developed Economies:

Rafael Doménech

r.domenech@bbva.com

Spain

Miguel Cardoso

miguel.cardoso@bbva.com

Europe

Miguel Jiménez

mjimenezg@bbva.com

United States

Nathaniel Karp

nathaniel.karp@bbvacompass.com

Global Areas:

Financial Scenarios

Sonsoles Castillo

s.castillo@bbva.com

Economic Scenarios

Julián Cubero

juan.cubero@bbva.com

Innovation & Processes

Clara Barrabés

clara.barrabes@bbva.com

Financial Systems & Regulation:

Santiago Fernández de Lis

sfernandezdelis@grupobbva.com

Financial Systems

Ana Rubio

arubiog@bbva.com

Pensions

David Tuesta

david.tuesta@bbva.com

Regulation and Public Policy

María Abascal

maria.abascal@bbva.com

Contact details

BBVA Research

Paseo Castellana, 81 - 7th floor

28046 Madrid (Spain)

Tel.: +34 91 374 60 00 and +34 91 537 70 00

Fax: +34 91 374 30 25

bbvaresearch@bbva.com

www.bbvaresearch.com