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Economic Watch

EAGLEs

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Economic Analysis

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Demographic transition in the EAGLEs

A premium and a challenge at the same time

- **A persistent and significant expansion of working age population has been a supportive factor for growth in Emerging Markets (Ems) for decades, but the process has started to fade away during this decade**

  Among the EAGLEs, Russia is an outlier, with stagnant demographics since the 90s, while Korea and Taiwan will begin to decrease their working age population in a few years. China will experience a sudden worsening in the short term. Contrary, India, Indonesia, Brazil, Mexico and Turkey will keep on enjoying an expansion in the following decades, although with decreasing intensity.

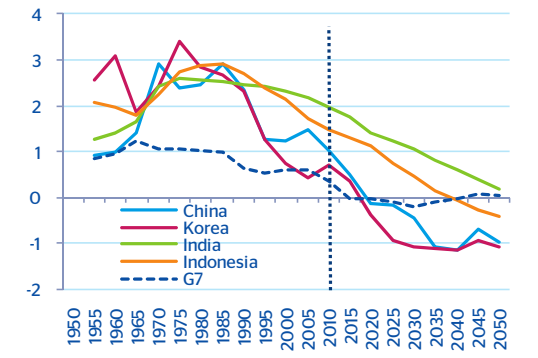
- **EMs need to compensate for demographic changes and find other sources to maintain high growth**

  Countries must boost productivity and increase the contribution of capital to growth as well as push up participation rates whenever still low, especially for female labor force, and in some cases implement reforms in their labor markets to reduce the natural rate of unemployment further. Immigration pressures should also be welcomed the more so for those countries with a more imminent problem (Russia followed by Korea, Taiwan and, of course, China).

- **Demographics are still a premium for many countries, but too rapid population growth remains one of the most important social challenges**

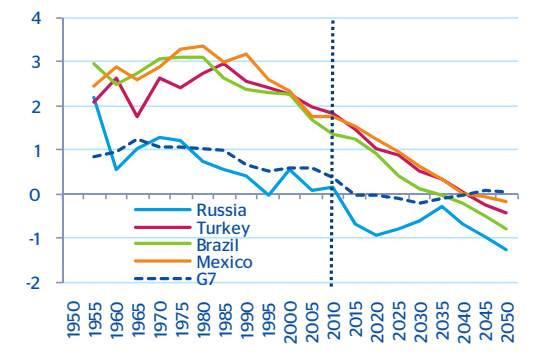
  An increasing population in working age also requires an important amount of job creation. India, Indonesia, Brazil, Mexico and Turkey will need employment creation to grow at 1-2% annually in the years to come to maintain current unemployment rates. The outlook is even more challenging for India and Turkey as they currently have high unemployment rates and low participation rates. In this regard, Egypt (which was one of our EAGLEs countries and fell to the Nest category after the Arab Spring) is the worst case in terms of its inability to generate job opportunities and the related social unrest.

Chart 1
Working age population (15-64 years old): EAGLEs in Asia (% average annual change)



Source: UN (2010) and BBVA Research

Chart 2
Working age population (15-64 years old): EAGLEs in LatAm and Europe (% average annual change)



Source: UN (2010) and BBVA Research

Demographics are not changing only for developed countries: ageing is just a matter of time for EMs

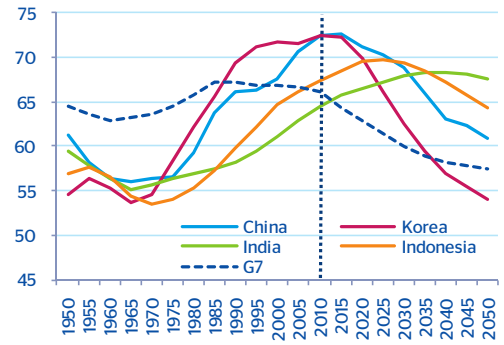
Growth considerations in advanced economies after the Second World War were based on the idea that completing the demographic transition and reaching the status quo of a relatively stable population was one of the components of the development recipe. However, demographic changes seem to have caught many off guard, especially with respect to the impact of ageing societies on potential growth, fiscal sustainability and saving/investing behavior.

The story could end up repeating itself for emerging countries, as few consider aging as a concern for them. However, long-term strategic thinking will be necessary to avoid similar problems to those of the developed world in the future. In fact, demographic changes in some of these countries are expected to be larger than those already recorded and projected for developed countries, so the risk for emerging countries is higher if adequate policies are not implemented.

The increase of working age population has been one of the most important sources of economic growth in the EAGLEs for the last couple of decades, with the exception of Russia and, to a lesser extent, Korea and Taiwan[1] (see Charts 1 and 2). Between the 50s and the 90s growth of the working age population was around 2-3 percentage points (pp). However, UN projections[2] anticipate that, in 30 years or so, the working age population will start to decrease in virtually all of the EAGLEs countries. As it happened in developed economies, the share of working age population will come down from its historical peak around 70% and will converge to values in the 60-65% range in 2050. (see Charts 3 and 4)

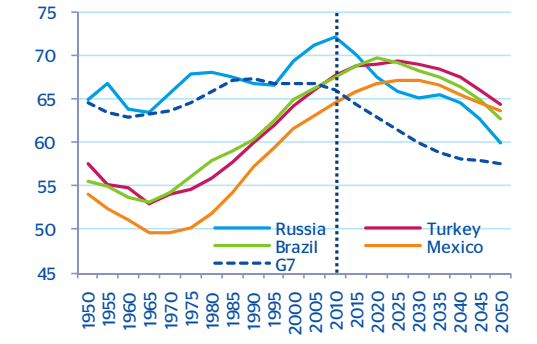
Although this is the general trend, large differences appear among the EAGLEs. In fact, we can differentiate three broad groups. The first one is formed by India, Indonesia, Brazil, Mexico and Turkey. All of them are representative cases of Emerging Markets' demography trends, with still an expansionary working age population in the next three decades. The second group is integrated by China, Korea and Taiwan, which both have been converging faster to developed countries standards and which will be start decreasing working age population by the end of this decade. And finally we have Russia, which, as mentioned before, is an outlier in all senses. Working age population is stagnant in this country and a peak for its share in total population has already been reached.

Chart 3
Working age population (15-64 years old): EAGLEs in Asia (% of total population)



Source: UN (2010) and BBVA Research

Chart 4
Working age population (15-64 years old): EAGLEs in Latin America and Europe (% of total population)



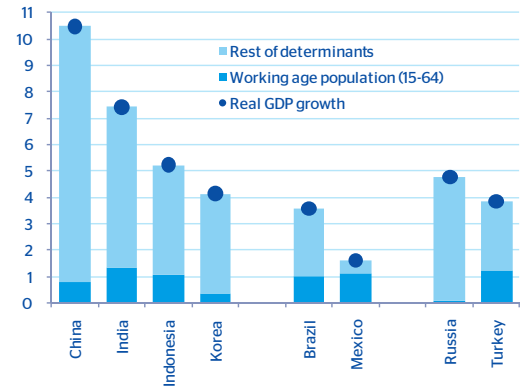
Source: UN (2010) and BBVA Research

[1] No data for Taiwan are available at the UN, but demographics are quite similar to Korea as both are among the most developed emerging economies.
[2] Our baseline scenario corresponds to the "Medium fertility" projection variant. Details of assumptions could be found at http://esa.un.org/wpp/Documentation/pdf/WPP2010_ASSUMPTIONS_AND_VARIANTS.pdf

Looking for growth sources beyond demographics

As working age population loses momentum, other sources of growth will need to take over (see Charts 5 and 6). This is true even for countries with the most favorable demographics, those included in the first group as defined in the previous section (i.e., India, Indonesia, Brazil, Mexico and Turkey), as they are also those expected to accelerate growth in the following years with respect to the last decade. This means that these five countries will have to generate new growth of around 1.5pp from other sources than an increase in working age population. The three exceptions to growth acceleration are Russia, China and Korea. In the first two cases other factors beyond demographics are expected to push down long-term growth, while in Korea the economy will have to offset the decline in working age population to keep current records.

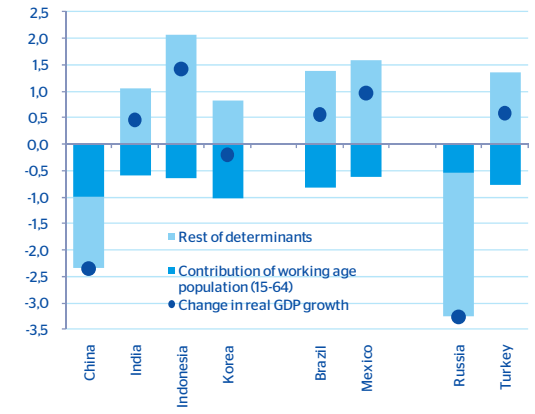
Chart 5
Real GDP and contribution of working age population* in the 00s (% annual average change)



*Contribution is determined from a production function assuming a labor share of 0.65 for all countries; the rest of determinants includes participation and employment rates, capital stock and total factor productivity

Source: UN (2010), IMF and BBVA Research

Chart 6
Expected change in real GDP growth and contribution of working age population* between the 00s and the 20s (percentage points)



*Contribution is determined from a production function assuming a labor share of 0.65 for all countries; the rest of determinants includes participation and employment rates, capital stock and total factor productivity

Source: UN (2010), IMF and BBVA Research

Following the classical production function approach such alternative sources will have to come either from the rest of labor market factors (increase in participation rates, reduction of structural unemployment or increase migration flows), capital contribution increases or technological progress gains. Focusing in other labor factors, a reduction in the natural unemployment rates will also be required in some countries as India and Turkey where labor market reforms are desirable. Labor participation rates can also be improved, especially in those countries with very low figures in the female segment as again, India and Turkey (see Table 1). Finally, immigration could offset partially the worsening in demographics especially as concerns the working age population, since this is where most of the immigration is concentrated. In this sense, as some cases in developed economies show, migration flows are endogenous to activity and we should expect fast growing emerging economies to attract foreign labor force in the following years.

Turning expansionary demographics into a growth premium is a challenge for job creation

An expansionary working age population has been traditionally considered as a growth premium, a view that assumes job creation is not a limitation in the production function. However, as some worst-case scenarios in the Arab Spring have shown, a significant amount of new labor force can eventually give way to labor market pressures and even social unrest if, together with social breeding ground, the labor market is not able to absorb the new labor force. Therefore, it is of great interest to assess the degree of the challenge of job creation for the EAGLEs in the following years.

For doing so, Table 1 summarizes the aspects we have to take into consideration. First of all, the expected increase in working age population, which defines demographic pressure. Secondly, the unemployment rate, which, combined with other social factors, can be a proxy for potential social unrest. Finally, participation rates are an indication of the share of new working age population entering the labor force and therefore of how job-demanding is demographic pressure.

Table 1
Assessment on challenges stemming from demographic and labor market dynamics*

	15-64 population growth	Unemployment rate	Participation rate		
			TOTAL	Male	Female
	2010-2020 annual %change	2011 % labour force	2010 % 15-64 population		
China	0,2	4,1	80,4	85,3	75,2
India	1,6	9,8	57,7	83,1	30,3
Indonesia	1,2	6,6	69,7	86,3	53,2
Korea	0,0	3,4	65,0	75,4	54,3
Taiwan**	-	4,4	58,1	66,6	50,0
Brazil	1,1	6,0	74,8	85,4	64,6
Mexico	1,4	5,2	65,0	83,8	46,9
Russia	-0,8	6,6	72,9	78,0	68,2
Turkey	1,2	9,8	52,8	75,5	30,3

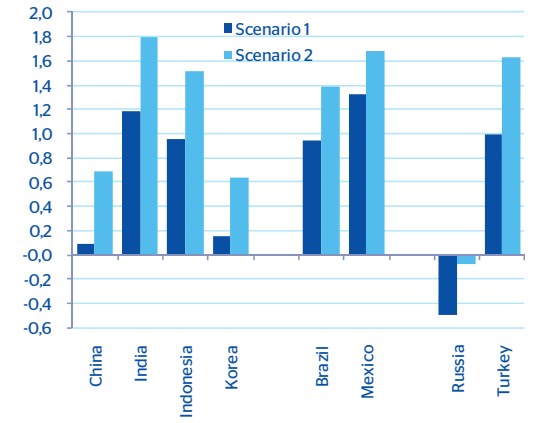
*The lightest (darkest) color corresponds to significantly below (above)-average figures.
**Participation rates for population with 15 years and over

Source: UN (2010), IMF, ILO, Haver and BBVA Research

According to these three indicators, India and Turkey have the most challenging scenario in the labor market for the medium term. They both present high expected growth for working age population, but still maintain high unemployment and low participation rates (although it is mostly due to very low female population). Using available labor force projections up to 2020[3], we find that other things equal the increase in working age population in these countries could add around 1pp to the unemployment rate on an annual basis (see Chart 7). Thus, India and Turkey should increase employment annually by around 1.3% (see Chart 8) to avoid an increase in the unemployment rate unless labor reforms to tackle still high unemployment and low participation rates (particularly in the female segment) are implemented. In fact, in order to reduce unemployment rates by 2pp, and under the assumption that the participation rate increases by 5pp until 2020[4], India and Turkey would need to create jobs at an annual rate of 2.3%. To put this into context, in the case of Turkey, this is above the average of the 2001-11 period (no data available for India).

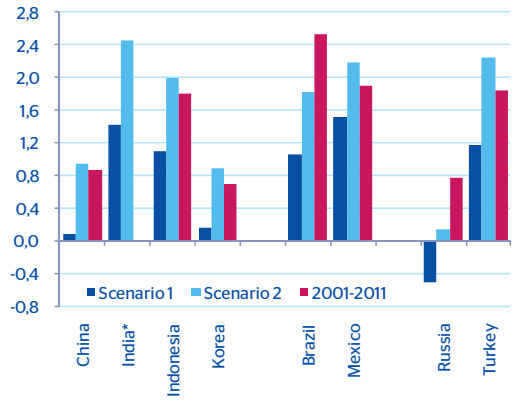
[3] Projections from the International Labour Organization (ILO).
[4] This is a common risk scenario assumed for all countries in the sample. To have an idea of how stressful this scenario is, the EAGLEs are expected to increase participation rates by 0.9pp on average between 2010 and 2020, ranging from stability for China, India and Indonesia, a mild increase in Turkey, growth of around 1pp in Brazil and Korea and above 2pp in Mexico and Russia.

Chart 7
Demographic pressure on unemployment rates (pp average annual change in 2011-2020)
Scenario 1: participation rates correspond to ILO projections
Scenario 2: participation rates increase by 5pp during the whole period



Source: UN (2010), IMF, ILO, Haver and BBVA Research

Chart 8
Demographic pressure on job creation (% average annual change needed in 2011-2020)
Scenario 1: for the unemployment rate to keep current levels and participation rates correspond to ILO projections
Scenario 2: to reduce the unemployment rate by 2pp considering participation rates increase by 5pp



Source: UN (2010), IMF, ILO, Haver and BBVA Research

With respect to other EAGLEs, a challenge is also present in Indonesia, Brazil and Mexico. These three countries have an expected annual growth in working age population above 1%, although they are better off than India and Turkey thanks to higher participation and lower unemployment rates.

Finally, we have the cases of China, Korea, Taiwan[5] and Russia, where working age population is expected to stagnate or even decline in the following years. This will free much pressure on the labor market, especially in the case of Russia where the unemployment rate is expected to decline. In the case of Korea and Taiwan, there is margin for the participation rate to increase, in which case job creation would need to exceed the one registered in the last decade. However, this represents no dramatic deviations from expectations, especially when we consider the very low starting unemployment rate. Similar considerations apply to China since the unemployment rate is low and participation rates are already high. China's challenge is, thus, not related to the lack of employment creation for the working force but rather to other issues relating to aging (contingent liabilities related to pension and health services are a good example).

What about the youth?

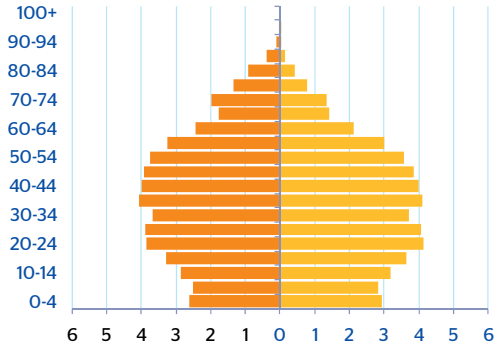
The age structure of population is also important. Special focus has to be placed on youth people (15-24 years), the new-comers to the labor market and the most sensitive group to show its discontent if job aspirations are not fulfilled, especially when education secondary and tertiary enrollment rates are improving. An illustrative way to analyze this is to check the population pyramids. We find a good example in Egypt, our fallen angel in the EAGLEs group and one of the leading countries of the Arab Spring. Its population pyramid (see Chart 12) show a significant pressure for youth employment as very high share of the population is concentrated below the 35 years segment. This country showed a youth unemployment rate of 25% in 2007, more than twice the general unemployment ratio (48% for women).[6] To put this in context, Egypt needs to create 700,000 new jobs per year to keep the unemployment rate constant and it needs a yearly 7% GDP growth to reduce the unemployment rate[7].

[5] Quantitative scenarios are not calculated for Taiwan as ILO data and projections are not available.
[6] Youth unemployment rates are those available at the World Development Indicators database of the World Bank, except for the case of Taiwan (Statistical Bureau).
[7] Kinninmont, J. (2011). Bread and Dignity. "Middle East: The World Today". Volume 67 8/9. Chatham House (www.chathamhouse.org/sites/default/files/twt08911kinninmont.pdf)

If we compare these figures with those of the EAGLEs for 2010, the highest youth unemployment ratio is in Indonesia and Turkey (22% in 2010) followed by Brazil (18%) and Russia (17%). Taiwan's youth unemployment ratio is significantly below these figures (13%), while it is even lower for Mexico and Korea (10%). No comparable recent data is available for India (the latest figure was 11% in 2005) and China).

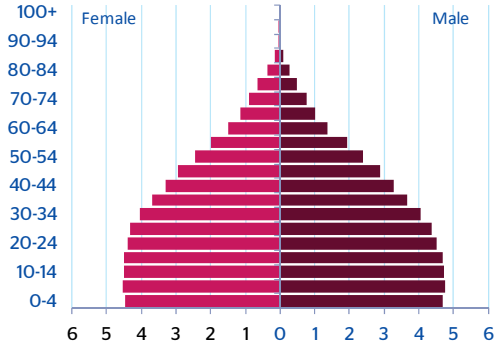
Between Egypt and the opposite example of the G7 countries (see Chart 11) we find the pyramids for the EAGLEs There is a group of countries (India, Indonesia, Brazil Mexico and Turkey) where the population structure is more similar (although not so worrisome) to the Egyptian one, and furthermore youth unemployment pressure could arise. Contrary, China and Korea and Russia are facing an older population structure, although still far from the G7 structure. Here, youth unemployment pressure will decrease. However, they will face other problems as declining labor force and pressures for the healthcare and pension systems.

Chart 9
Average population pyramid in EAGLEs with a structure similar to G7 (China, Korea and Russia)* (% of total population) (2010)



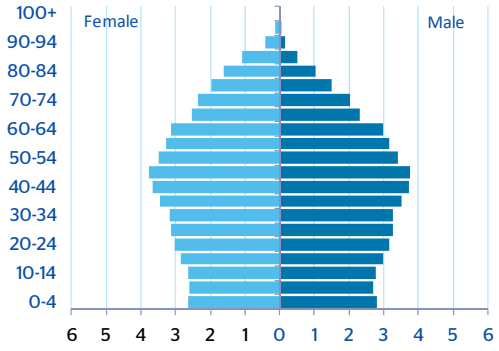
*China, Korea and Russia
Source: UN (2010) and BBVA Research

Chart 10
Avg. population pyramid in EAGLEs with a typical structure in emerging countries* (India, Indonesia, Brazil, Mexico and Turkey) (% total pop. 2010)



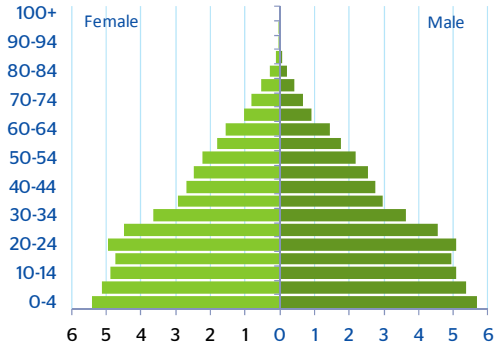
*India, Indonesia, Brazil, Mexico and Turkey
Source: UN (2010) and BBVA Research

Chart 11
Average population pyramid in G7 countries (% of total population) (2010)



Source: UN (2010) and BBVA Research

Chart 12
Population pyramid in Egypt (% of total population) (2010)



Source: UN (2010) and BBVA Research

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