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What next for globalisation?

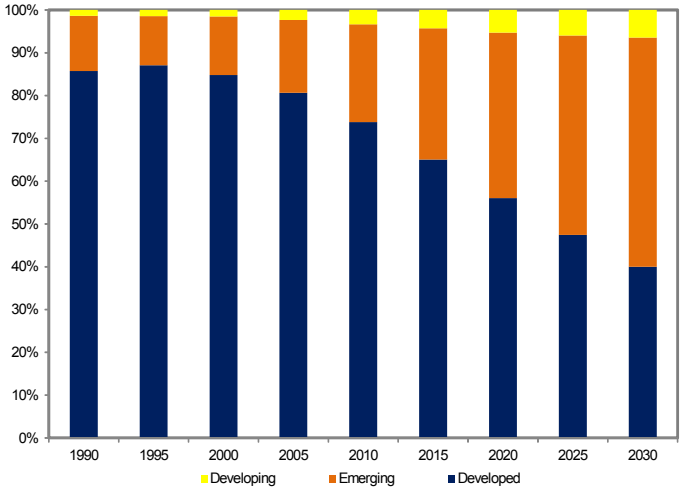
- One of the most remarkable features of the global economy since the early-1990s has been the rapid integration, and consequently growing importance, of the emerging economies, China especially, in the global trading system. This issue of Trésor Economics considers the main medium-term issues and challenges arising from future developments in these economies' supply side on the one hand, and in their demand on the other.

- On the supply side, the major emerging countries enjoyed a substantial cost advantage in making their entry into the global trade system over the past two decades. However, recent trends in wages, productivity and exchange rates in these countries, along with an increasingly well-qualified working population and the rapid move upmarket by these firms in these countries are likely to have a profound effect on their productive models. Unit wage costs (UWC) in the manufacturing sector, in China particularly, began rising relative to European and American UWC in the early-2000s, after having fallen steadily since the 1980s.

- On the demand side, while the last twenty years have brought a massive reduction in extreme poverty in these countries, the next twenty years are likely to see the rise of a substantial middle class. The number of people living on less than $30 at 2005 PPP per day (i.e. an annual income above $10,000 at 2005 PPP) is expected to double between 2012 and 2030, from slightly less than 1 billion to over 2 billion. Of this additional billion, more than four fifths, or 800 million, will be living in economies currently classified as emerging.

- These broad trends can be expected to alter the global economic balance profoundly. To begin with, the change in the productive model of the major emerging countries is likely to redraw the map of international value chains via an intensification of intra-sector trade between developed and emerging economies. Also, it will probably lead to a relocation of unskilled labour-intensive activities to other geographies such as Southeast Asia, India and Africa. In addition, the emergence of a large upper middle class in the emerging economies should provide a sizeable new source of growth for developed countries' businesses.

The changing distribution of the global middle class (individuals living on a daily income above $30 at 2005 PPP) according to level of development



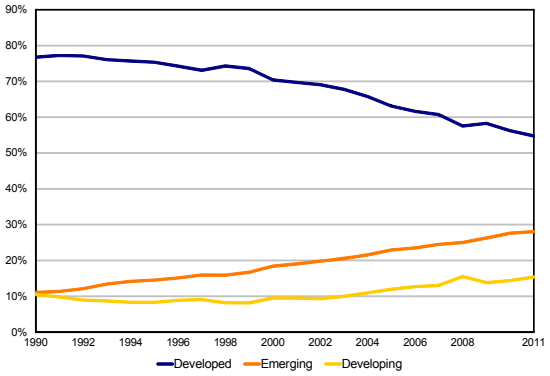
Source: DG Trésor estimate based on CEPII and World Bank data.

MINISTÈRE DES FINANCES ET DES COMPTES PUBLICS

MINISTÈRE DE L'ÉCONOMIE DU REDRESSEMENT PRODUCTIF ET DU NUMÉRIQUE

One of the most remarkable developments in the global economy since the early-1990s has been the rapid integration and growing importance of the emerging and developing economies in world trade. Until the early-1990s, exports from the advanced economies'[1] accounted for more than three-quarters of global exports. In 2011, this share had fallen to 54%, whereas that of the emerging[2] and developing economies had jumped from 23 to 45%. The Asian economies especially accounted for the bulk of these market share gains, China in particular, whose market share rose from 1.7% to 11% in 2011. The international fragmentation of supply chains, the adoption by the emerging economies of export-led development policies, and the deepening of trade liberalisation, all contributed to these developments[3].

Chart 1: Share of world trade



Source: CHELEM database (CEPII).

1. Regarding the emerging economies' product mix, the narrowing of their cost advantage and their increasingly well-qualified work force are likely to modify these economies' degree of specialisation and redraw the global map of production locations

The entry of the major emerging economies into the global trade system over the past two decades was facilitated by their hefty cost advantage. However, recent trends in wages, productivity and exchange rates in these countries, along with their increasingly well-qualified work force and the rapid upmarket move of their businesses, will probably affect their productive models profoundly.

1.1 The cost advantage enjoyed by some of the major emerging economies has begun to erode since the 2000s

Discussions of globalisation frequently single out the very low wages paid to emerging countries' workers relative to those in the advanced economies as a form of unfair competition, even though these gaps may simply reflect productivity differentials. True, international comparisons of hourly wages in industry do reveal substantial differences between advanced and emerging economies. In 2005, for example, hourly wages in Chinese and Indian manufacturing industry respectively represented 2.4% and 3% of the hourly wage in American industry[4]. However, these comparisons make no allowance for productivity differentials, even though these are essential in assessing an economy's cost-competitiveness[5]. Unit wage costs (UWC) are a more useful indicator in international comparisons since they link labour costs to productivity.

According to our estimates (see Box 1), the relative difference in UWC between emerging and developing economies are a good deal smaller than wage differentials, thus casting these economies' supposed cost advantages in a different light (see Charts 2). In Mexico, for example, whereas in 2011 the average manufacturing sector wage was still equivalent to only 20% of the average US wage, the gap in manufacturing sector UWC was practically nil[6]. Similar trends are observed when one compares manufacturing sector UWC in the emerging countries with those of France. However, the appreciation of the euro, and the fact that the gap between growth in nominal wages and productivity in France has been wider than in the United States since 2000, imply that differentials in emerging countries' manufacturing UWC are greater vis-à-vis France than vis-à-vis the United States. Comparison of French and American manufacturing sector UWC in dollar terms, moreover, shows that the two indicators diverge very significantly from 2002 onwards.

(1) Austria, Australia, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Norway, New Zealand, Netherlands, Portugal, Singapore, South Korea, Spain, Sweden, Switzerland, Taiwan, United Kingdom, United States.

(2) Argentina, Bangladesh, Brazil, Brunei, Cambodia, Chile, China, Colombia, Egypt, Ecuador, India, Indonesia, Laos, Malaysia, Mexico, Philippines, Russia, Sri Lanka, Thailand, Tunisia, Turkey, South Africa, Vietnam (list based on the CEPII's CHELEM database).

(3) Baldwin, R. (2011), "Trade And Industrialisation After Globalisation's 2nd Unbundling: How Building And Joining A Supply Chain Are Different, And Why It Matters", *NBER working papers.*

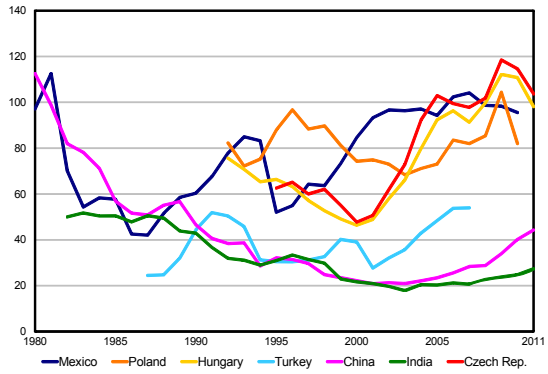
(4) Sincavage, (2008), "Labor costs in India's organized manufacturing sector", *Bureau of Labor Statistics.*

(5) A manufacturer enjoys a cost-competitiveness advantage only if the wages he pays are low in comparison with his workers' productivity. A worker who is paid an hourly wage of €100 and who produces the equivalent of €120 in an hour will be just as competitive as one paid €50 per hour and who produces the equivalent of €60 per hour.

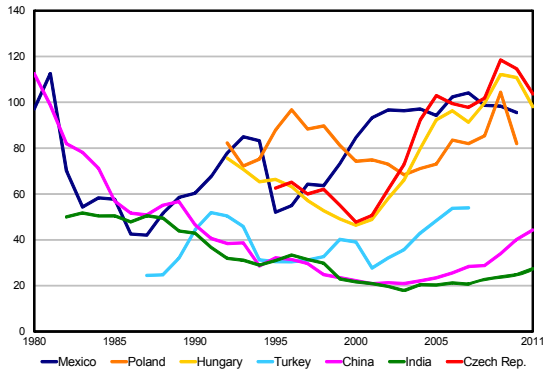
(6) Mexican manufacturing sector UCW as a percentage of US manufacturing sector UCW has fluctuated widely owing to exchange rate swings, and particularly during Mexico's two devaluations, in 1982 and 1994. On each occasion, the competitive advantage gained by these devaluations was gradually eroded, and Mexico's manufacturing sector UCW finally settled at a level close to American UCW in the 2000s.

Chart 2: Manufacturing UWC for selected emerging economies as % of

American UWC



French UWC



Sources: OECD, National Bureau of Statistics of China, ASI, World Bank, BLS, IMF, DG Trésor estimates.

Box 1: **International comparison of unit wage costs (UWC)**

Definition of UWC and international comparisons

Unit wage costs (*UWC*, or *CSU* in the equations below) in a country *i*, in a sector *j*, written $CSU_{i,j}$, are calculated as the relationship between the cost of labour[a], $CT_{i,j}$ in the equation (1), per person employed, $L_{i,j}$, (or per hour worked) and labour productivity, $PT_{i,j}$. Labour productivity is defined as the value added in real terms created by this sector, $VA_{i,j}$, relative to the number of people employed, $L_{i,j}$, (or hours worked). More simply, *UWC* can be expressed as the ratio of labour costs ($CT_{i,j}$) to value added ($VA_{i,j}$) value added is expressed in real terms, whereas labour costs are expressed in nominal terms.

$$CSU_{i,j} = \frac{CT_{i,j}/L_{i,j}}{PT_{i,j}} = \frac{CT_{i,j}/L_{i,j}}{VA_{i,j}/L_{i,j}} = \frac{CT_{i,j}}{VA_{i,j}} \quad (1)$$

One can compare *UWC* at the international level by converting them into a single reference currency[b]. When making this type of international comparison, the numerator initially expressed in national currency, $CT_{i,j}$, is converted at current exchange rates, $e_{\$:i}$, in the equation (2) to allow for trade-offs between wages in the different countries. The denominator expressed in national currency, $VA_{i,j}$, represents a real quantity and must be converted into a common currency with an exchange rate at purchasing power parity[c], $PPA_{\$:i}$, in the equation (2) in order to adjust levels of added value for differences in relative prices between countries. Moreover, UWC specific to manufacturing are the ones most generally considered, since this is the sector most exposed to international competition. Ultimately, three factors can influence an economy's relative cost-competitiveness: (i.) domestic currency wage trends, (ii.) productivity trends, (iii.) exchange rate trends.

$$\mathrm{CSU}^{\$}_{i,j} = \frac{\mathrm{CT}_{i,j} * \mathrm{e}_{\$:i}}{\mathrm{VA}_{i,j} * \mathrm{PPA}_{\$:i}} \quad (2)$$

Comparisons between levels of *UWC* require the use of purchasing power parity (PPP) exchange rates taking into account price trends specific to the manufacturing sector, even though these are hard to obtain. Van Ark, Bannister and Guillemeau (2006)[d] have compiled these figures for a large number of countries for 2002.

Overall, international comparisons of manufacturing sector *UWC* levels need to be interpreted with care, especially when they include emerging economies. Results therefore need to be seen as highlighting orders of magnitude and trends in terms of changes in relative *UWC*, rather than as precise comparisons.

Methods used to estimate data series for *UWC* levels

We have drawn on the study by Van Ark, Bannister and Guillemeau (2006) for 2002[e] in order to compare trends in the level of emerging countries' *UWC* relative to those in the advanced economies. Based on that reference year and using manufacturing *UWC* index series in current dollar terms, we can then reconstruct data series for relative *UWC* levels starting from our reference year, 2002. It should be borne in mind that, in thus extrapolating data series in order to compare levels based on indices of *UWC* trends, we assume that the PPP exchange rate specific to the manufacturing sector, which is an equilibrium value, remains constant.

UWC data series for the American and French manufacturing sectors are taken from the Bureau of Labor Statistics (BLS) database, while those for Poland, Hungary and Turkey are taken from the OECD database, and those for India and China are calculated from labour cost data drawn from national sources (the National Bureau of Statistics for China and the Annual Survey of Industry (ASI) for India), and from World Bank output data[f].

a. The cost of labour comprises the wage paid to the employee together with company social insurance contributions and other benefits paid by the employer.
b. UWC indicators are indicators of cost competitiveness and should not be confused with indicators of comparative advantage, which indicate specific sectors in which an economy would gain from specialising.
c. Le taux de change PPA est habituellement utilisé pour les comparaisons internationales de niveau de vie. Il est déterminé en définissant un panier de consommation dans un pays et en évaluant le prix d'un panier « semblable » dans l'autre pays.
d. Van Ark, Banister et Guillemineau (2006), "Competitive advantage of "Low-Wage" countries often exaggerated", *The Conference Board.*
e. This was the method used in Trésor Economics November 2006, "Is the impact of China's emergence on France as large as currently thought?"
f. The quality of data for the emerging economies is still unreliable, especially for data on wages, as these do not always comprise all of the remuneration paid to employees (social insurance contributions in particular).

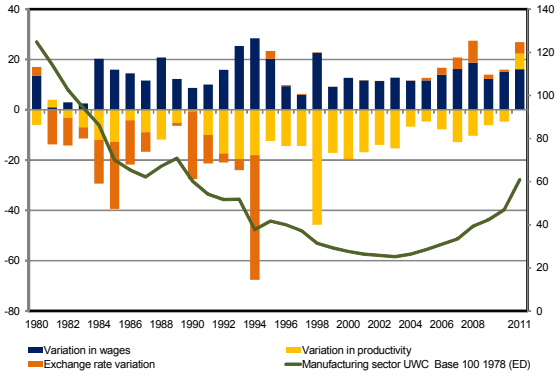
Yet real UWC levels in China and India are well below those in the advanced economies, and in particular French UWC, even if they appear to be trending upwards since the beginning of the 2000s[7]**.** Chinese and Indian manufacturing UWC declined fairly sharply in the 1980s and 1990s relative to French and American UWC. In 2000, UWC in China's manufacturing sector were equivalent to 23% of French UWC and 22% of American UWC, while India's UWC were equivalent to 21% of French UWC and 20% of American UWC. This downward trend appears to have reversed since the early-2000s, however, and both Chinese and Indian UWC, whether expressed in relation to American or to French UWC, are rising. In 2011, Chinese UWC are reckoned to represent 40% of American UWC (versus 20% in 2001) and 22% of French UWC (versus 15% in 2005).

1.2 UWC in China's manufacturing sector could rise rapidly in the coming years

Past trends in China's UWC in dollar terms (see Chart 3) can be broken down into three sub-periods:

- **Between 1981 and 1994**, wages rose by 12% a year on average, compared with an average annual rate of 8% for productivity. At the same time, the depreciation of the Yuan (around 80% over the period as a whole) reduced China's manufacturing sector UWC in dollar terms.
- **Between 1995 and 2004**, during which period the Yuan/Dollar parity remained unchanged, China's manufacturing UWC in dollar terms continued to decline as a result of strong productivity gains (+19% per year on average) and relative wage restraint (+15%).
- **From 2004 onwards**, China's UWC halted their downward trend as productivity gains slowed to an average annual rate of +6%, whereas wages continued to rise at a pace similar to the previous period (+14%). At the same time, China's nominal exchange rate rose against the dollar by around 15% over the period.

Chart 3: Annual variation in Chinese UWC in dollar terms, by component



Source: National Bureau of Statistics of China, World Bank, DG Trésor calculations.

A number of factors account for these observed increases in manufacturing sector UWC since 2004:

- First, the slowdown in productivity gains can be explained by the fading of the catch-up effect, i.e. the period during which productivity in China's manufacturing sector rose very rapidly.
- Another factor explaining the continuing rapid growth in wages is the falling rural labour surplus, which had previously helped to keep wages down. On this point, and echoing the mechanisms described by the Lewis model (1954)[8], anecdotal evidence points to early signs of the diminishing labour supply in China's coastal regions. However, a recent IMF article[9] failed to find evidence confirming the imminence of a Lewis turning point, but did confirm that the surplus may have peaked in 2010 (around 151 million people) and may dry up between 2020 and 2025.
- More generally, China's demographic trajectory, with its rapidly ageing population, is expected to put upward pressure on all wages, and indeed on labour costs, with the rising need to finance welfare schemes.
- Finally, there is a political drive to rebalance the growth model in favour of more domestic demand, as notably expressed in the 12th Five-Year Plan, with in particular a commitment to regularly increasing the minimum wage by 13% annually and a more internationally cooperative exchange rate policy.

(7) Several academic articles confirm this trend in Chinese wage costs. See in particular:
- Li, H., Li, L., Wu, B. and Xiong, Y., (2012), "The End of Cheap Chinese Labor", *Journal of Economic Perspectives.*
- Ceglowski, J., and Golub, S., (2007), "Just How Low Are China's Labour Costs?", *World Economy.*

(8) The Lewis model stipulates that, during the transition from an agricultural economy to an industrialised economy, the manufacturing sector benefits from the arrival of rural workers, who progressively come to work in industry and help keep wages down. Productivity rises faster than wages, boosting profits in the manufacturing sector, making it more competitive and generating a virtuous circle of industrialisation and growth for the economy as a whole. Once this pool of surplus labour has been exhausted, manufacturing sector wages will accelerate, the manufacturing sector's competitiveness will erode and company profits decline, in what is known as the "Lewis turning point".

(9) Das, M. and N'Diaye, P., (2013), "Chronicle of a Decline Foretold: Has China Reached the Lewis Turning Point?", *IMF Working Paper.*

1.3 At the same time, rising levels of qualification and investment in R&D will very likely modify patterns of specialisation in the emerging economies

The main emerging economies are witnessing a rapid rise in the level of qualification of their working populations, which will reduce their historical comparative advantage in unskilled labour intensive activities. This is because of rising enrolment rates in higher education courses across all of the emerging economies. For example, whereas less than 5% of a generation of young Chinese was enrolled in higher education courses in the 1990s, the percentage now exceeds 20%. In other countries, such as Turkey or Romania, more than 50% of a given generation now attends university, which is close to figures for the advanced countries (57% in France in 2010, for example). According to a study by McKinsey (2012)[10] this trend should substantially raise the level of qualification of the working population: whereas in 2010, 8% of China's working population had attended university (62 million people), the proportion was expected to rise to 19% in 2030 (163 million people). In India, similarly, whereas 8% (37 million people) of the working population had reached this level of education in 2010, the proportion is expected to rise to 20% (128 million people) in 2030.

Moreover, the emerging economies have invested heavily in research and development in recent years. China in particular devoted more than 1.6% of its GDP to R&D spending (public and private) in 2010, drawing closer to the figure for the developed countries (e.g. France with 2.2% of GDP and the United States with 2.9%, in 2010), compared with just 0.6% in 1996. The rising level of qualification of the working population together with R&D spending ought consequently to modify patterns of specialisation in these economies, with manufacturers moving upmarket and intensifying the technological content of the goods they produce. One of the challenges facing these economies as they approach the frontiers of technology will be to shift from an extensive growth model (where economic growth is driven by catch-up productivity gains and a reallocation of workers between sectors) to a more intensive one, where production is more diversified, turning out increasingly complex goods[11].

1.4 Changes in the productive model now taking place in the major emerging economies are expected to redraw the global supply chain map

While a massive relocation of activities previously offshored to these countries seems unlikely, a key question is to know which countries will take over from China as producers of low-skilled labour intensive industrial goods, in the coming years. Plausible scenarios include:

- China could in fact continue to play this role for many years to come, but with a displacement of those activities most intensive in low-skilled labour towards the Western and Northern regions of the country, which are not yet highly industrialised. Indeed there are still sharp disparities between the different regions of China in terms of industrialisation.
- A reallocation of these activities to South East Asia (Vietnam, Cambodia, Philippines and Thailand). This process has been underway for several years now and has intensified in countries like Vietnam, which in recent years have been host to activities intensive in low-skilled labour formerly performed in China.
- It is also possible that India could become a front-rank producer of manufactured goods. While India's development has been driven by the service sector in recent years, the manufacturing sector only really began growing in the mid-2000s. India nevertheless enjoys distinct strengths somewhat reminiscent of China's a few years ago. In particular, the Indian economy has a fast-growing working population and production costs that are still very low. To take up the running from China, however, India will need to overcome a number of structural obstacles to its industrial development. For instance, India suffers from an infrastructure deficit and serious energy problems, along with excessive regulation and red tape. In addition, there are high barriers to entry in many sectors, low labour mobility between sectors, and a large informal sector due to very tough labour laws.

It is not certain, however, that other economies would be capable of reproducing the "shock" represented by China's entry into the global economy in the mid-1990s, as they appear to lack China's size and potential, for the time being. Overall, we can expect to see an even greater and more fine-grained fragmentation of the global supply chain, as businesses seek out the most highly-developed skills at the most attractive price for each "task".

2. On the demand side, the emergence of a large middle class will be one of the main developments in the emerging economies in the coming years

In addition to the far-reaching supply side changes in the major emerging economies, described above, demand originating in these countries will be profoundly modified by the rise of a large new middle class, which can be expected to benefit companies in the advanced economies and serve as a powerful growth driver for them.

2.1 Economic growth in the 1990s and 2000s has reduced extreme poverty significantly

The round of globalisation that began 20 years ago coincided with a hefty reduction in extreme poverty in the world. Whereas the figure stagnated in the 1980s, the number of people living in extreme poverty, i.e. with less than €1.25 at 2005 PPP per day, fell

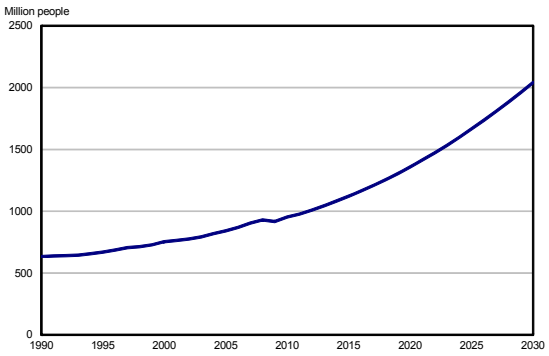
(10) McKinsey, (2012), "The World at Work: Jobs, pay and skills for 3.5 billion people".
(11) Agénor, P-R and Otaviano, C. (2012), "Middle-Income Growth Traps", *World Bank Policy Research Working Paper.*

from 1.9 billion to 1.1 billion between 1990 and 2010, representing a fall from 43% to 21% of the population of the emerging and developing countries[12]. Whereas most of the reduction in poverty in the 1990s occurred in China, accelerating growth in the other emerging and developing economies since the beginning of the 2000s also has contributed significantly to this reduction. What is more, India's growth over the next 10 years should sharply reduce the global extreme poverty rate, as many Indians are now nearing the €1.25 threshold.

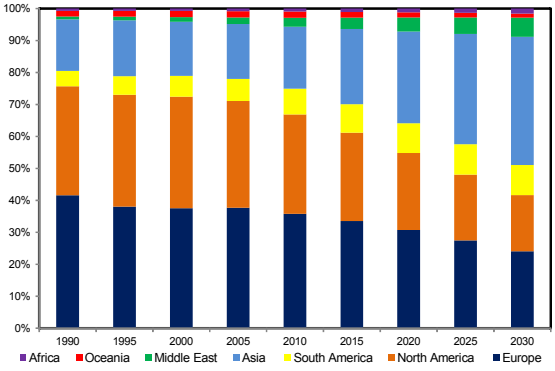
2.2 The rise of the global middle class is likely to be a major feature over the next 20 years

According to our estimates, based on the CEPII's projections of per capita GDP, which assume a constant income distribution within each country (see Box 2), the number of people living on more than $30 per day at 2005 PPP, representing an annual income above $10,000 at 2005 PPP, could double between 2012 and 2030, rising from just under 1 billion to over 2 billion (see Chart 4). Of this additional billion people, more than four-fifths, or 800 million, will be living in what are now called the emerging economies (which corresponds to a quadrupling of the number of people living on this level of income in these economies). Over the same period, the middle and upper classes in the developed countries are expected to grow by only 15% altogether, or by around 120 million additional individuals. In the developing countries, finally, around 80 million are expected to reach this level of income.

Graphique 4 : Number of people living on more than $30 per day at 2005 PPP



Graphique 5 : The changing geography of the "middle classes" (individuals living on a daily income above €30 at 2005 PPP)



Sources: World Bank Povcal database, CEPII, DG-Trésor estimates.

If we choose a daily income threshold of $80 at 2005 PPP to define the global middle and upper middle class, the distortion of the geographic distribution of this population category looking to 2030 is less significant. This is because the number of people living above this threshold would rise from 183 million in 2013 to 392 million in 2030. However, whereas in 2013 more than 90% of this global income class lives in a developed economy, this concentration would only fall to 85% in 2023 and to 75% in 2030. Geographically speaking, the bulk of this income class would continue to be situated in North America and Europe in 2030. Yet it is Asia that would see the largest increase in the number of people living on this level of income, rising from 16 million in 2013 to 88 million in 2030.

Conceivably, the convergence of the emerging economies may not be as linear as forecast in our estimates, notably because growth becomes increasingly hard to achieve as they approach the frontiers of technology. The empirical literature on growth shows that economic convergence depends in particular on the quality of institutions and education, and that as these economies move nearer to the frontiers of technology the "institutional effort" required in order to go on growing becomes increasingly demanding. Several empirical studies have shown the existence of a middle-income trap into which the middle-income countries could fall[13].

(12) Chandy, Ledlie and Penciakova, (2013), "The Final Countdown: Prospects for Ending Extreme Poverty by 2030", *Brookings Paper.*

(13) Aiyar, Duval, Puy, Wu and Zhang, (2013), "Growth Slowdowns and the Middle-Income Trap", *IMF working paper.*

Box 2: **Method used to project middle and upper classes to 2030**

Definition of the global middle class

The middle classes can be defined in relative terms (for example, people living between the 20th and 80th income distribution percentile) or in absolute terms (e.g. people living between two income levels). To determine the consumption potential the development of a global middle class could represent, we have opted for an absolute measurement common to all countries. Consequently, the middle class encompasses all people living on more than $30 per day at 2005 PPP, i.e. with an annual income above $10,000 PPP. This high level of income has been chosen in order to capture the share of the world population with a sufficiently large income to consume a basket of various goods and services, including internationally traded goods in particular. By way of comparison, other studies of the middle classes opt for lower thresholds: the World Bank, for instance, uses the threshold of $4 PPP per day, and the OECD $10 PPP.

Projection method

Using World Bank data on income levels and distribution together with the CEPII's long-term growth projections, we can project numbers for the middle and upper classes to 2030[a].

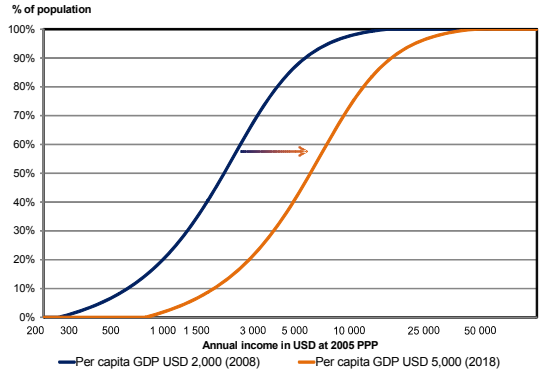
In the first place, we can build Lorenz curves for all of the countries studied using data for the distribution of income by decile supplied by the World Bank for all developing countries[b] and for average income per capita taken from the 2005 International Comparison Program (ICP) survey. For 2005, these Lorenz curves give us the percentages of the population of each country living above or below any given income threshold expressed in USD at PPP.

If we then assume that income distribution remains constant, and that average incomes grow at the same pace as per capita GDP projections calculated by the CEPII[c], , it is then possible to project the total income distribution (i.e. the Lorenz curve) over time and thus calculate the percentage of the population living below or above a specified income threshold at each date considered. When combined with United Nations population projections[d], these percentages can then be translated into a corresponding number of individuals.

For example, Chart 6 represents the income distribution for China based on the methodology at two moments in time: in 2008, when China's per capita GDP was worth $2,000 at PPP, and in 2018, when China's per capita GDP will be $5,000 at PPP according to the CEPII projection. Assuming a constant income distribution, we find for example that the percentage of the population living on less than $10 per day (or $3,500 per year) would fall from 80% in 2008 to 30% in 2018.

The assumption of a constant income distribution is clearly a very bold one, since inequalities evolve over time. In particular, the level of inequality observed in the emerging economies today is very large and could shrink as per capita wealth in these countries rises. If trends in the emerging economies do bear this out, then projections of middle class numbers would under-estimate the number of people in the emerging countries joining this income category in the next 20 years.

Chart 6: Income distribution in China according to GDP per capita



Source: World Bank Povcal database, CEPII, DG Trésor estimates.

a. Here we use a methodology developed by Hamid Kharas in "The emerging middle class in developing countries", OECD (2011). Our estimate of global middle and upper class trends is based on a sample of the 65 most populous countries in the world and covering 90% of the total world population.
b. World Bank Povcal database.
c. Fouré, J. and *Al*, (2012), "The Great Shift: Macroeconomic Projections for the World Economy at the 2050 Horizon", CEPII *Working paper*.
d. These population projections are the same as those used by the CEPII to ensure that the two sources are compatible.

2.3 The emergence of this new middle class is a powerful growth driver for the economies concerned as well as for the global economy.

The rise of a large middle class is beneficial for the economies concerned, and the economic literature has highlighted several characteristics specific to the middle classes conducive to economic development. (i.) It permits the development of a large and diversified domestic consumption base, which in return leads to a certain degree of macroeconomic stability. (ii.) It is conducive to the accumulation of human capital and savings, because middle class households have fewer children and invest more in their children's education than do poorer households[14]. Similarly, because they have higher incomes, the middle classes are able to accumulate significant savings, which can be a major growth driver, especially in the developing economies, which often lack access to foreign capital.

Moreover, this new middle class also presents an opportunity for firms in the advanced economies-those with real knowhow in the production of goods and services consumed by this segment of the population. At a time when aggregate demand in the advanced economies appears to be levelling off, the rise of a middle class in the emerging and developing economies represents a genuine growth driver for the Northern hemisphere's multinationals. Advanced economy firms' outsourcing strategies ought therefore to focus increasingly on penetrating external markets (through horizontal investments enabling them to move closer to

(14) Banerjee & Duflo, (2007), "What is middle class about the middle classes around the world?".

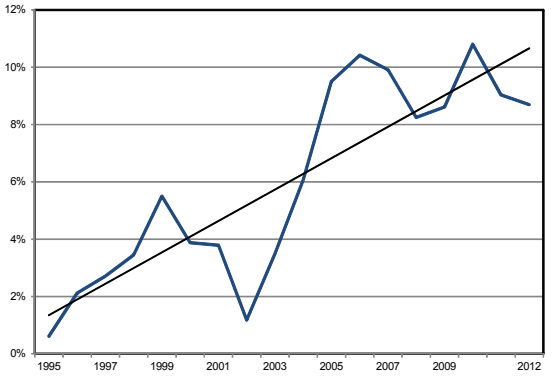
the final consumer) and less on optimising their production costs (via horizontal investment and subcontracting).

* * *

The main conclusion from these studies is that globalisation should be seen as a dynamic and evolving process that should lead in the coming years to a rebalancing of economic forces between the developed and the emerging economies. At the same time, past and future trends alike suggest a number of recommendations for the developed countries:

- Continuous and hefty investment in education and R&D are indispensable, even when budgets are under pressure. First, because competition with the major emerging economies will shift increasingly towards knowledge-intensive segments of the economy. Secondly, because the redistributive effects associated with technical progress can be attenuated only by a rise in the general level of qualifications. Seen thus, educational policy needs simultaneously to strive for excellence, in order to position France at the upper end of global value chains, and to be capable of training the entire population in order to prepare for the potential destabilising effects of technical progress.
- At the same time, the rise of large middle and upper classes in the emerging economies, in Asia especially, is likely to provide one of the chief sources of growth in the next 20 years. Thanks to their historical knowhow, firms in the advanced economies should be able to profit from this trend, provided they adopt the right outsourcing strategies, notably by setting up operations directly in these countries. This could lead to the portion of FDI remittances in France's current account rising in relation to exports. This trend has already been underway for the past 20 years in France (see Chart 7): whereas FDI remittances were equivalent to 3% of exports in the period 1995-2000, they grew to 9% in the period 2008-2012. Consequently, while this points to a growing internationalisation of French firms' profits, it is imperative to ensure that corporate taxation does indeed reflect the reality of the creation of added value (see the OECD and G20 Base Erosion and Profit Shifting initiative).

Chart 7: Ratio of FDI remittances to exports of goods and services



Source: Banque de France.

Arthur SODE

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