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Europe's Eroding Wealth of Knowledge

Since the Lisbon summit in 2000, the European Union has set itself the goal of becoming a knowledge-based economy. While policymakers may regret the hype that surrounded the launch of the strategy, most still find value in the Lisbon goals and, if anything, the focus on knowledge has been strengthened in recent years.

The assumption behind this strategy is that as hundreds of millions of unskilled workers join the global economy, the EU, which is endowed with a relatively skilled labour force, needs to keep this comparative advantage. But are the Europeans really skilled and those new workers unskilled? As graduates from China and India have entered the global labour force, Princeton University's Alan Blinder recently observed that the fear of offshoring has spread to computer programmers, radiologists and security analysts.

The issue is not whether university graduates are being produced in emerging countries. Of course they are. Nor is it whether they can compete with graduates from European and US universities. Not all of them can, but many do. It is whether the industrialised countries are and will remain better endowed with skilled labour and retain a relative advantage in human capital-intensive products and services.

Comparative data on education compiled by the Organisation for Economic Co-operation and Development and by Robert Barro from Harvard and Jong-Wha Lee from Korea University are far from perfect and do not correct for quality, but they do allow assessment of the distribution of human capital across the world. Three facts emerge.

The first is that the average EU adult is significantly less educated than adults in other industrialised countries: he or she has spent some two years less studying than the US citizen and one year less than the Japanese. This is not due to enlargement (there is no difference in educational attainment between new and old member states) but to the fact that in most of Europe the generalisation of secondary education took place much later than in the US. A large part of the EU population has completed only primary education and less than 20 per cent (against 40 per cent in the US or Japan) has reached tertiary level.

Since educational investment started later, the EU performs better for flows (the number of students) than stocks (the number of graduates). There are now slightly more students in the EU25 than in the US, although this is for a significantly larger population. But the second fact is that the rest of the world is catching up even faster. Globally, one-quarter of adults who have had

access to higher education are in the US, one-fifth in the BRICs (Brazil, Russia, India and China) and less than 15 per cent in the EU25 (Figure 1). But the BRICs now account for one-third of students and other middle-income countries for one-quarter, against 16 per cent in the EU and 15 per cent in the US (Figure 2).

The picture is strikingly different as regards physical capital (buildings and equipment). The advanced economies have a much higher stock of physical capital per capita than emerging and developing countries. Machines, even more than education, is what makes the difference. This especially applies to the EU, where the intense capital accumulation of the post-second world war period has resulted in a sizeable capital stock, representing one-quarter of the world's physical capital, which exceeds that of the US in absolute terms (Figure 3). Even after the investment boom in the US in the 1990s and the 2000s, the investment-to-gross-domestic-product ratio of the EU15 remains higher. The third fact is, therefore, that Europe is much better endowed with buildings and machines than brains (Figure 4).

There is a clear gap between the US and the EU as regards human capital. The US economy is ahead of the pack for both human and physical capital, the EU for physical capital only. This shows up in trade structures. The US mostly exports skills-intensive goods, such as high-technology products, while the EU specialises in goods of high capital intensity and medium-skill intensity, such as cars and chemicals.

This puts the US and the EU in different positions vis-à-vis globalisation. Harvard University's Richard Freeman notes that globalisation means an almost sudden "doubling of the global labour force": that is, the entry into the world economy of new workers initially deprived of access to capital. In this context, there is an advantage in specialising in capital-intensive goods for which there are few competitors. In the short run, globalisation increases the world demand for those goods – and the countries that specialise in them benefit from a form of rent. Its trade specialisation puts Europe on the side of globalisation's winners, as its advantage is actually strengthened by the entry of new players. This explains why European exports have thrived in recent years – and suggests that many complaints about the effects of globalisation ignore its benefits to Europe.

The good news, however, may stop here. Europe's high savings helped in accumulating capital in the low capital mobility context of the past, but those times have gone and capital is gradually moving to the countries with good economic institutions, infrastructures and human capital. With migrations, human capital to some extent agglomerates at the same places. Here the EU risks being at a disadvantage because of its slowness in Developing and upgrading its education systems, especially universities and other tertiary institutions. Also, few countries have devised a skilled migration policy that makes them an attractive place to study and work.

The US has about equal infrastructure, more investment in human capital, better economic institutions and a more active skilled migration policy. Capital

is thus more inclined to move there as well as to the best-performing emerging countries. This should erode Europe's comparative advantage.

The upshot is that the focus on knowledge is right but that the sense of urgency is lacking. Europe's prosperity will not last if it does not address its underinvestment in human capital. With roughly as much public money and much less private money going to education than in the US, and significantly fewer outstanding educational institutions, it can expect a slow but inexorable erosion of the basis of its prosperity. It needs to start reversing the trend without delay.

The writer is the director of Bruegel, the Brussels-based economic think-tank

Sources

Educational achievement data referred to in the text are from Barro-Lee (2001) and OECD (2005). Data on students in education are from the World Bank's Edstats database (<http://genderstats.worldbank.org/edstats/cd1.asp>). Capital stock data are from the update by Miketa (2004) of the Nehru and Dhareshwar (1993) database.

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Figure 1: World Distribution of Human Capital, 2000

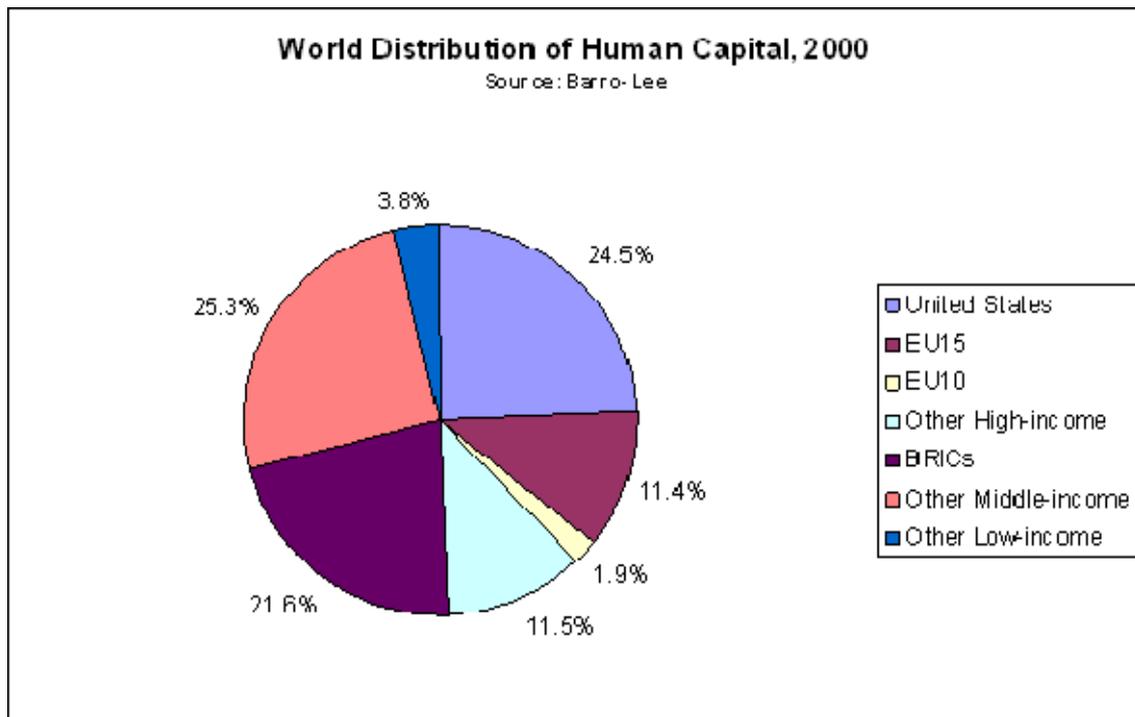


Figure 2: World Distribution of Students, 2000

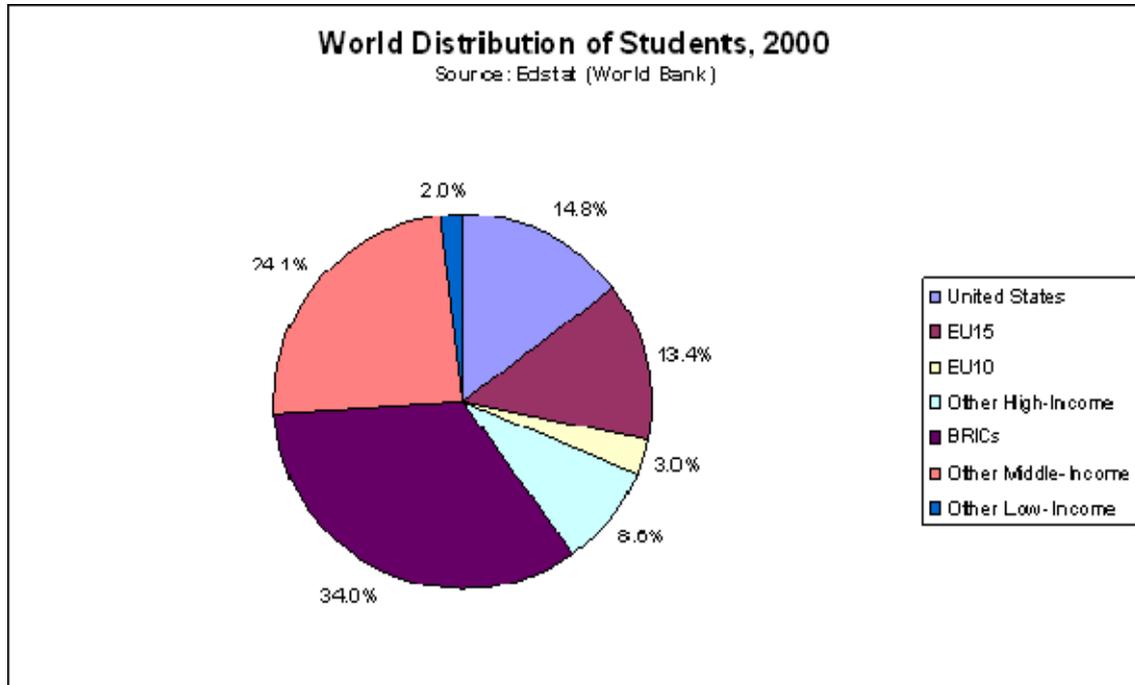


Figure 3: World Distribution of Physical Capital, 2000

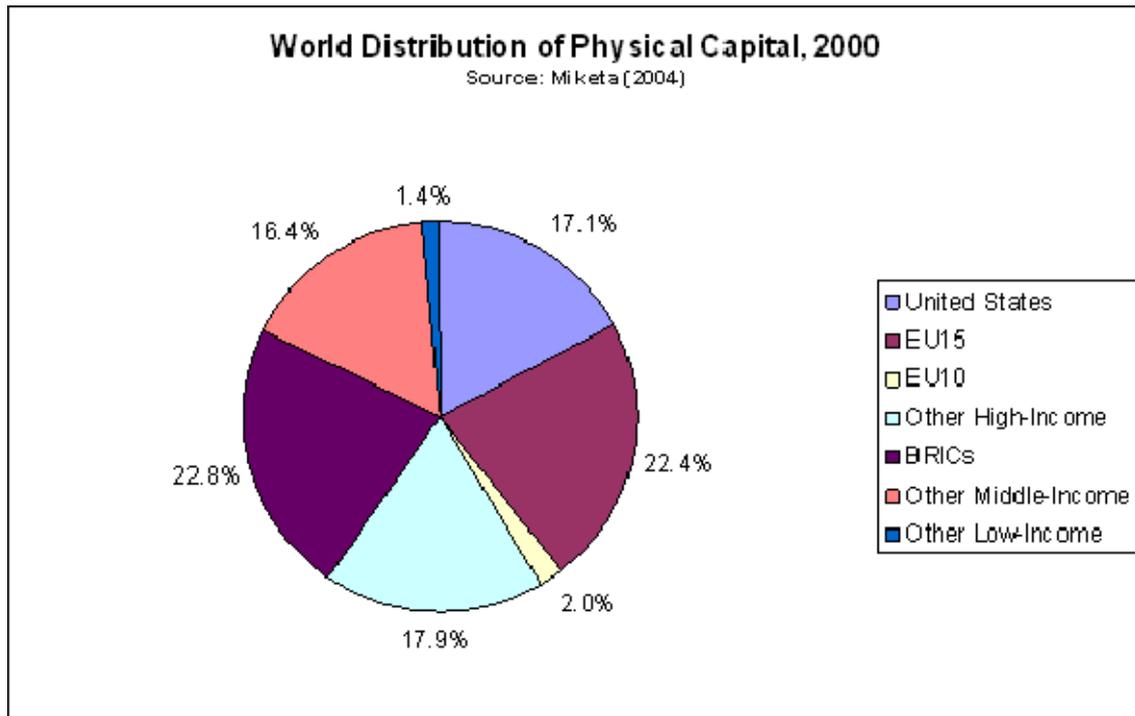


Figure 4: Factor Endowments, 1990-2000

