



THE CONFERENCE BOARD

2013 Productivity Brief—Key Findings

Global Productivity Slowed in 2012, with Little Scope for Improvement in 2013

The global slowdown in economic growth has an immediate impact on the world's productivity performance, as lower investment and less innovation make workers less productive. According to the latest estimates by The Conference Board global output-per-worker growth has dropped off to 1.8 percent in 2012, which except for the 2008/09 recession was seen last in 2001/2002. What makes this year's release so unique is that poor productivity performance is so widespread that there are very few countries or regions that showed any productivity improvement. Among mature economies, the United States, the Euro Area, and Japan have seen labor productivity growth virtually stalling, as uncertainties prevented businesses to invest more rapidly and bring new products and services to the market. Major emerging economies, including China, India, Brazil and Mexico have also experienced slowing productivity growth. Even more so, when taking account of the moderate growth in investment, the remaining so-called total factor productivity growth—a more precise measure of efficiency—seems to have ground to a halt in emerging markets as well.

We project global labor productivity growth to remain fairly sluggish at 1.9 percent in 2013. This weak productivity performance means that global GDP growth, currently forecasted around 3.2 percent for 2013 (compared to 3.1 percent in 2012) creates little upside for GDP growth even if labor markets recover more strongly than predicted because the employment gains are likely to be offset by slowing labor productivity growth. Not surprisingly, business leaders will therefore want to focus more strongly on the internal capabilities of their operations through strengthening human capital, increase operational excellence and laser-focus on innovation, as confirmed in The Conference Board CEO Challenge® 2013 survey. To jump start meaningful economic growth, economies need to not only support the creation of more employment but they must help to make jobs more productive as well through investment and innovation. Emerging markets, especially, need to generate more efficiency from investments in infrastructure, and raise productivity in growing industries, such as consumer industries and, in particular, services. A mix of smoothly working markets for labor, capital, goods and services, and government support or regulation when the markets don't adequately capture the benefits for consumers and investors do much for faster productivity growth.

WEAK PRODUCTIVITY PERFORMANCE HAS SPREAD ACROSS THE WORLD

In 2012, and for the second consecutive year, the world economy experienced a slowdown in labor productivity growth (measured as the average change in output per person employed¹) to 1.8 percent, down from 2.3 percent in 2011 and 3.6 percent in 2010 (Table 1 and Table 9). The slowdown is primarily the result companies using inputs, such as labor and capital, less efficiently. This in turn appears to be the result of slowing demand, and businesses refraining from making significant cutbacks in resources in the hope of better times ahead.

Just as in 2011, the global productivity slowdown in 2012 was to a much greater extent due to weaker output growth than to faster job growth. While the growth of the world's GDP, adjusted for inflation, dropped from 3.8 percent in 2011 to 3.1 percent in 2012; average employment growth only slowed a little from 1.4 to 1.3 percent (Table 1). The last time the global economy saw labor productivity growth rates well below 2 percent was in 2001/2002 and 2008/09, both times during which many economies were in recession. Before the mid-1990s global productivity growth rates were more frequently below 2 percent or even less than 1 percent, but in those times emerging markets were growing at much slower growth rates than during the past 10 years.

While in 2011, mature economies contributed to the bulk of slowing productivity growth, the further slowdown in 2012 was equally shared between mature and emerging economies. Since the emerging and developing economies have lower levels of productivity compared to mature economies, the ongoing shift in economic activity to those lower productivity economies from advanced ones played a role in the overall world productivity slowdown as well. (Table 2 and Table 8)

The weak productivity performance around the world has become a major concern for global business. In a slow growth environment, firms are looking for ways to remain competitive and gain market share through stronger business performance. These business concerns are reflected in *The Conference Board CEO Challenge 2013*[®] survey, the results of which were released on January 9th. In this survey, in which over 700 senior executives were asked to identify and rank the most pressing challenges they face, human capital — how best to develop, engage, manage, and retain talent — was named the leading challenge (out of ten choices). Operational excellence stood in second place, followed by innovation and customer relationships. Significantly, leaders in Asia, Europe, and the United States all included these same four among their top-five challenges. The challenges that CEOs want to focus on are directly related to stronger productivity, and their concerns are confirmed by the estimates from the current study.

¹ The definitions of labor productivity and total factor productivity are given at the end of this document.

Developments in mature economies in 2012

On average, the productivity slowdown in 2012 in mature economies was entirely due to slower output growth, but there were important differences between major countries and regions (Table 3).

In the *United States*, the growth of labor productivity (measured as GDP per hour) in 2012 showed a dramatic drop to only 0.2 percent for the year, down from 0.8 percent in 2011. Despite a slight improvement in GDP growth from 1.8 percent in 2011 to 2.2 percent in 2012, total hours growth gained more traction as it doubled from 1 percent to 2 percent. However, the labor market improvement was offset by dismal productivity performance. The 2012 productivity growth performance is one of the slowest observed during the post-World War II period in the United States – output per hour only grew slower than 0.2 percent in 1974 (-1.0 percent) and 1982 (-0.8 percent). The slowdown in labor productivity growth is due to a combination of slow investment growth, held back by low business confidence in part related to the fiscal crisis, and few efficiency gains (as measured by total factor productivity growth at 0.2 percent – see Table 10)¹ account for most of the productivity slowdown in the United States. While the manufacturing sector had been a stronghold of productivity growth for several years, performance considerably weakened during the course of 2012 as a result of the global slowdown in manufacturing demand. In contrast the services sector has shown somewhat better productivity performance as services output growth strengthened.

In the *Euro Area*, labor productivity growth (measured as output per hour) dropped from 1.2 percent in 2011 to 0.6 percent in 2012. Output contracted by -0.5 percent in 2012, down from 1.4 percent in 2011, signaling that most economies were more heavily affected by the financial and fiscal crisis than we anticipated a year ago. However, at -1.1 percent, total hours worked contracted much more sharply than output, resulting in the moderately positive estimate for growth in output per hour at 0.6 percent. However, the efficiency of resource use, as measured by total factor productivity, declined by -0.8 percent, meaning that labor and capital in the Euro Area were less efficiently allocated in 2012 compared to previous years (Table 10). This decline in efficiency probably resulted from weaker companies clinging to resources as well as an inability to market new technology and innovations in a timely fashion.

Within the Euro Area, there was an unusually large variation in productivity growth rates between economies, reflecting the different impacts of the debt crisis. *Spain* came out with the *highest* growth rate in labor productivity, at 2.3 percent in 2012. This results from a sharp contraction in total hours worked at -3.7 percent, well beyond the GDP contraction at -1.4 percent. This is a very different outcome from, for example, *Greece* where labor productivity *fell* at -1.3 percent, one of the biggest declines in the Euro Area in 2012. The difference in how the

two economies are adjusting to the crisis is also clearly reflected in total factor productivity, which is estimated to have declined at -4.3 percent in Greece vis-à-vis -0.2 percent in Spain.²

In *Germany* and *France*, the growth rates in output per hour have also fallen considerably in 2012, that is, to 0.4 percent (down from 1.6 percent in 2011) for Germany and to -0.2 percent (down from 1.4 percent in 2011) for France. Even though jobs in *Germany* expanded significantly at 1 percent, total working hours increased by only 0.3 percent, which results from less overtime and more vacation days in 2012. Still, Germany's employment growth seemed beyond what could be supported by the growth in output. Its strong export performance outside the EU was balanced by increased weakness among its major Euro Area trading partners, including France, Italy and Spain. Also the domestic consumption and investment in Germany, which are the parts of the economy most jobs produce for, did not develop that rapidly as the export sector. In *France*, job growth was much slower than in Germany but total working hours still increased by 0.4 percent, which was faster than France's output growth at 0.2 percent. Of greater concern is that after adjusting for investment in machinery and equipment, the efficiency measure of productivity (total factor productivity) declined at -0.4 percent in Germany and -1 percent in France (Table 12). The widespread weakness of total factor productivity growth among major European countries, points to ongoing structural rigidities in labor, capital, and product markets, as reflected in the incomplete single market in Europe (especially for services) and the lack of true mobility of labor within and between European economies.

On average, the level of productivity in the Euro Area, measured as output per hour in U.S. dollars (after adjustment for differences in relative price levels using purchasing power parities) is much lower than in the United States—just 80.9 percent of the U.S. level in 2012. But this average hides a very large variation reflecting the countries' different levels of development and economic structure (such as the share of manufacturing in the economy) (Table 8). Major European economies like Germany and France show higher productivity levels than the Euro Area average at 90 and 93 percent of the U.S. level, whereas economies like Spain and Italy are only posting 76.3 percent and 71.8 percent. The productivity level of Greece and Portugal is much lower still at just 50.3 percent and 42 percent of the U.S. level. As these Mediterranean economies showed much larger employment losses than the northern economies in Europe, the share of labor in Euro Area countries with high productivity levels increased significantly, which boosted the average productivity growth rate of the Euro Area by 40%, resulting in a growth rate of 0.6 percent in 2012.

² See also comparative measures of unit labor cost between European economies in Bert Colijn and Bart van Ark, Will the Blood, Sweat, and Tears Poured into Europe's Troubled Economies Pay Off as Unit Labor Costs Decline and Competitiveness Improves?, Executive Action Report, The Conference Board (to be released on 24 January 2013)

The developments in the larger **European Union-27** are similar to those in the Euro Area (which includes only 17 of the 27 EU member states), although several Central and Eastern European (CEE) economies, which are somewhat less exposed to the fallout from the Euro Area crisis, showed less of a decline in output and hours. The largest economy in the region, **Poland**, slowed somewhat in output and total hours growth, but still performed solidly with a 2.2 percent increase in labor productivity growth in 2012. At a level of output per hour of only 38.7 percent of the U.S. productivity level, there is still much scope for improvement in Poland's productivity performance as well as in most other CEE economies (Table 8).

In contrast to Central and Eastern Europe, the **United Kingdom** showed a much larger decline in GDP (-0.3 percent) than anticipated. Growth in total hours remained fairly stable at around 1.0 percent, confirming a significant labor hoarding in times of major austerity. As a result, labor productivity growth in the UK declined dramatically at -1.3 percent in 2012. Also, the UK's level of output per hour remains well below that of its main continental counterparts, France and Germany, at 80 percent of the U.S. level (Table 8)

In **Japan**, output and employment showed only a moderate recovery from the earthquake and tsunami disasters in March 2011, as Japan's structural growth crisis, reflected in weakening domestic demand and exports and an energy crisis, was overwhelming the recovery effects. Given the expectations, growth in 2012 was dismal at 0.6 percent for both GDP and total hours worked, resulting in stalled productivity growth. Japan's total factor productivity growth was also flat in 2012, reflecting a shift towards more labor-intensive production as investment declined and hours increased. Japan's productivity level is even lower than in Europe, at only 70 percent of the U.S. level, especially reflecting the weak performance of Japan's services sector relative to other major mature economies.

Developments in emerging and developing economies in 2012

Emerging and developing economies also continued their slowdown in labor productivity growth last year down from an average 5.7 percent in 2010 to 4.7 percent in 2011, to only 3.8 percent in 2012 which, except for 2009, was the slowest productivity growth in emerging markets since 2002. (Table 1 and Table 4)

In the **Asia-Pacific region**, most emerging and developing economies experienced a relatively moderate slowing in productivity growth in 2012, with the major exception of several countries in Southeast Asia. Within the **ASEAN group**, Malaysia, the Philippines, Thailand, and Vietnam saw an improvement in productivity growth in 2012, following a slowdown in 2011. The economy of **Indonesia** showed a mild slowdown in productivity growth, but it was still at 4.2 percent. While the ASEAN economies are all affected by the slowdown in global exports, the strengthening of the domestic sectors in the emerging economies in the region has had strongly

positive productivity effects. However, productivity growth in Singapore – which is the only ASEAN member which is included in the mature economies group in this report – stalled in 2012, down from 1.5 percent in 2011 and 9.4 percent in 2010 (Table 9).

At 7.4 percent annual labor productivity growth in 2012, **China** continues to post one of the highest labor productivity growth rates in the world, which has made it the most powerful contributor to global productivity growth. However, output per person employed fell by 1.4 percentage points from 8.8 percent in 2011 to 7.4 percent in 2012, which is the largest slowdown in percentage terms in the Asia-Pacific region, and the lowest productivity growth rate for China since 1999 (Table 4). The 2012 decline in the growth rate followed a similar slowdown in 2011 relative to 2010. Despite these declines, which are largely the result of slowing GDP growth, the slowdown may just represent an adjustment to a more normal growth rate for a country at that level of development. Although the information for the latest years is sketchy, the indications are that investment growth in China has not been accompanied by the same efficiency gains (measured by total factor productivity growth) as in the previous decade. In 2011, total factor productivity growth was just over 2 percent, compared to 3.6 percent from 2006 to 2010 (Table 10). China is looking for ways to climb the value chain, by focusing on higher productivity activities through technological change and innovation, but the results from those efforts typically take a significant time to materialize.

Productivity growth in **India** which slowed dramatically in 2011 to 4.2 percent (from 6.2 in 2010), fell further to 3.7 percent in 2012, the slowest growth rate in that country since 2002. The productivity slowdown happened despite weaker employment growth – from 2.2 percent in 2011 to 1.8 percent in 2012 – because output declined much faster – from 6.5 percent in 2011 to 5.5 in 2012. According to provisional estimates of total factor productivity growth, the efficiency of resource use virtually stalled in 2012 (Table 10). India's economy is going through a difficult time as it suffers major macroeconomic challenges through high inflation, slowing exports, and a slowdown in structural reforms. The lack of reforms hampers a better performance of the labor market and slows the opening up of sectors for new foreign direct investment, which all have a direct impact on productivity growth.

The slowdown in labor productivity growth in 2012 was larger in **Latin America** than in Asia, dropping from 3.1 percent in 2010 to 2 percent in 2011 and 1.2 in 2012 (Table 9). The most dramatic decline was in **Brazil**, which showed a drop in the level output per person employed at -0.3 percent in 2012, following an even bigger slowdown from 4.1 percent productivity growth in 2010 to 0.7 percent in 2011. The decline in labor productivity was the result of a rapid slowing in output growth to only 1 percent in 2012, while employment still grew at 1.3 percent. The Brazilian economy has rapidly deteriorated under the influence of the global growth slowdown, which revealed internal weaknesses that remained unobserved under the high growth rates of previous years. The efficiency of resource use as measured by total factor productivity, worsened

to -1.8 percent (Table 10). The main productivity deterrents relate to inadequate infrastructure, too little investment in new machinery and equipment, high payroll taxes, and slow improvements in worker skills and management practices.

Mexico also showed slower productivity growth at only 0.7 percent in 2012. However, the nature of its productivity performance was very different from Brazil. Output remained relatively high and stable at 3.9 percent, while employment increased from 2.2 percent in 2011 to 3.1 percent in 2012. Macroeconomic conditions in Mexico were much improved and, despite weak growth in the United States, the economy continues to benefit from its integration in NAFTA as demonstrated by the strong representation of U.S. and Canadian business in Mexico.

Productivity growth in the *Middle East* also slowed as output growth in the region rapidly declined, partly as a result of weakening oil prices and partly due to political and social unrest in much of the region.

Labor productivity growth in *Africa* remained relatively modest compared to other emerging and developing regions at 0.8 percent in 2012. The slow productivity growth in Africa resulted from a significant increase in the size of labor force, which for a region with a relative low productivity level of 6.5 percent of the United States, makes much sense (Table 9). Estimates for the largest economy in the region, *South Africa*, suggest relatively solid labor productivity growth of more than 3 percent, but there is still much scope for a more efficient use of resources since total factor productivity growth estimates are quite modest (Table 11). There were also large variations in productivity growth between African economies, ranging from more than 5 percent in large economies such as Ghana, and Côte d'Ivoire to contractions in economies that suffered from political and military conflict such as Sudan and Mali.

In *Russia* labor productivity growth dropped slightly from 3.8 percent in 2011 to 3.4 percent in 2012. Employment growth remained slow at 0.3 percent, making most output growth in Russia being driven by productivity gains.

Productivity growth in *Turkey* also declined slightly from 1.8 percent in 2011 to 1 percent in 2012; but underlying this moderate decline were dramatic falls in output growth and employment creation. Turkey seems to have suffered severely from the European crisis, but is also struggling with its transition from a low-cost producing economy to a higher position in the value chain, and raising its efficiency through productivity-enhancing investment in labor skills, technology and innovation.

Comparisons of productivity levels

Productivity levels in emerging and developing economies, measured as output per person employed (converted to U.S. dollars using purchasing power parities) are much lower than in mature economies, but there are large differences between regions. Productivity levels were generally lowest in Africa, at 6.5 percent of U.S. levels in 2012, but emerging and developing nations in Asia-Pacific have only marginally higher productivity levels at 10.5 percent on average. Output per person employed in China is 17 percent of the U.S. level, and in India it is 10.2 percent of the U.S. level. African and Asian economies are generally abundant in labor and scarce in capital, explaining their low starting positions in levels of output per person. Notable exceptions on low labor productivity levels are South Africa (at 24.2 percent) and Malaysia (at 34.1 percent) although in both cases mining activities, which are very capital intensive, contribute to the high averages. Several Middle East economies also typically score higher productivity levels because of a high share of capital-intensive exploitation and production of oil and especially natural gas.

Most economies in Latin America and Russia and Central Asia are characterized by higher levels of output per person at 24.7 percent and 29 percent respectively in 2012. In those regions capital is typically more abundant relative to labor, creating higher output per worker. Still some Central Asian states like the Kyrgyz Republic, Tajikistan, and Uzbekistan have productivity levels as low as 10 percent of the U.S. level, comparable to developing economies in East Asia, such as Indonesia or the Philippines. In Latin America, the notable exception is Bolivia, which has a productivity level of only 11.4 percent of the U.S. level in 2012.

THE PRODUCTIVITY OUTLOOK FOR 2013 SHOWS NO SIGNIFICANT IMPROVEMENT

Productivity measures are difficult to project because two variables need to be estimated: the growth in output or GDP and the growth in employment or, more precisely in total hours worked. Based on the current forecasts and estimates available, average global labor productivity growth is projected to remain relatively slow at 1.9 percent relative to 1.8 percent in 2012 (Table 1). Both global GDP growth and the increase in the world's workforce are expected to remain fairly constant at 3.2 percent and 1.2 percent in 2013.

Developments in mature economies in 2013

Among the mature economies, productivity growth (measured as the change in output per hour worked) may improve slightly (Table 3). In the *United States* productivity could see a moderate improvement to 0.6 percent in 2013 compared with 0.2 percent in 2012. However, a slower recovery of the labor market, beyond the currently projected 1.1 percent employment growth

(and 1.2 percent growth in total hours) in 2013, may have only a limited impact on GDP growth because of slower productivity growth, in the same way as happened in 2012.

The *Euro Area* is projected to contract at a slower pace than in 2012, but as the labor market recovery typically lags, the growth in output per hour may drop to 0.2 percent in 2013 compared to 0.6 percent in 2012 (Table 3). If total hours growth falls more than -0.3 percent, there could be a slightly more positive effect on productivity, making the picture look more like 2012.

However, the largest positive productivity effects in Europe need to come from an acceleration in investment and a more efficient allocation and use of resources. Many of those potential gains will arise from the finalization of a single market in Europe, where labor, capital, products and services can float freely through trade, harmonized banking rules, greater migration, and cross-border investment. Such sustainable productivity gains will likely take longer to achieve along Europe's path to recovery from the crisis.

As both *Germany* and *France* are expected to see no growth in terms of total working hours in 2013, all output growth for 2013 will be the direct result of productivity growth. Germany is expected to see GDP and productivity growth at 0.8 percent and France at 0.2 percent.

Productivity growth in *Spain* is expected to drop significantly to only 0.4 percent (compared to 2.3 percent in 2012) as the contraction continues even though the labor market may have its largest shakeouts behind it.

In Central and Eastern Europe, the biggest productivity gains are foreseen for the Baltic States—*Estonia* (1.9 percent), *Latvia* (2.4 percent) and *Lithuania* (2.6 percent)—as these economies are still benefiting from fairly solid growth of their largest trading partner, Russia.

In 2013, the *United Kingdom* is expected to return to positive growth territory with 0.9 percent GDP growth, a growth rate that is faster than for the Euro Area. Assuming that total hours growth remain positive at around 1 percent, labor productivity growth is likely to be flat. A weakening labor market, however, may push productivity growth back in to positive territory. However, total factor productivity growth, which measures the rise in the productivity of labor and capital, may remain negative until demand for products and services accelerates allowing for a bigger contribution from technology and innovation to productivity growth.

Japan will see flat productivity growth for another year in 2013, as both output and hours growth are projected to improve only moderately from 0.6 to 0.8 percent. Efficiency gains are extremely difficult to come by as long as crucial structural rigidities in Japan's labor market and in several services industries are not being resolved.

Developments in emerging and developing economies in 2013

Emerging and developing economies may see a moderate continuation of a softening productivity growth trend as the growth model of some of the largest and most dynamic economies comes under pressure (Table 4). As emerging economies begin to mature, productivity growth is harder to achieve and requires bigger efforts in building critical infrastructure, including “soft” infrastructure such as information technology, research and development and the development of human capital (rather than roads, rail and airports). With service industries becoming more important in the economy as nations advance, productivity growth becomes almost entirely dependent on human capital and on organizational capabilities. A larger reservoir of skilled workers that can operate in flexible and transparent labor markets where they can put their talents to the most productive use is crucial to achieve faster productivity growth.

In *Developing Asia* the productivity growth performance of 2012 will be sustained into 2013, especially if in global trade doesn’t deteriorate. The more mature and smaller economies in the region, especially *Singapore* and *Hong Kong* (which is especially tied to the mainland Chinese economy) are much more dependent on the growth performance of the rest of world, so it is even more important for those countries to manage the impact of the global slowdown by creating greater efficiency from internal resources, such as human capital, innovation and operational excellence.

For *China*, the economy is projected to hold up well at 7.5 percent GDP growth, but the slowing underlying growth trend, which is characteristic of the transition towards a more consumer- and services-sector driven economy, typically translates into slowing productivity growth. Moreover as large parts of the economy begin to mature, a larger burden of innovating at the technological frontier rests on the shoulders of Chinese companies, requiring more resources and higher risk to increase productivity compared to their traditional “catch-up” mode with the best practices of foreign enterprises.

India’s productivity growth is likely to slow even more substantially in 2013 to 2.9 percent, down from 3.7 percent in 2012, as output growth drops below 5 percent. Critical macroeconomic constraints, notably persistent high inflation despite hikes in interest rates, reduce the prospect for a rapid recovery in demand. With slow demand and abundant labor supply businesses find it more difficult to achieve productivity gains through investment and greater efficiency.

In Latin America, *Brazil* will most likely see a return to positive productivity growth, provided output growth returns to the projected 2.4 percent – still well below more optimistic forecasts of up to 4 percent. However, since firms are likely to be cautious in hiring given the uncertain recovery, labor productivity growth will recover to 1.2 percent in 2013 up from -0.3 percent in

2012. Output per person employed will grow more slowly in *Mexico* at only 0.4 percent, but it results from faster output growth (3.2 percent) and employment growth (2.8 percent) compared to Brazil. The Mexican economy benefits from continued reforms in labor markets and product markets, as well as its integration into NAFTA strengthening its role in the global value chain.

Most other emerging markets will see moderate improvements in productivity in 2012, including the *Middle East* and especially *Africa*. On average, Africa may experience an acceleration in output growth of more than 1 percentage point led by an increase in exports to other emerging markets, as well as the rise of a middle class consumer segment in several countries. *Russia* should see a moderate slowdown in output growth as the effects of the commodity cycle in 2012 are easing, translating into slower productivity growth. A key challenge for Russia remains the diversification of the economy to generate more employment growth which ultimately may have an offsetting effect on Russia's labor productivity performance because the new industries will be less capital intensive than the energy sector. *Turkey* is projected to see some recovery in productivity to 1.6 in 2013, up from 1 percent in 2012. The ongoing slowdown in output growth, partially attributable to Turkey's continued exposure to the Euro Area crisis and challenges in upgrading its export industries, will be more than matched by a slowdown in employment growth as foreign and domestic firms are forced to make efficiency gains.

Variables definitions

Productivity provides a simple but powerful indicator of economic efficiency. Labor productivity measures output per employed worker. Where working hours can also be measured (mostly only in mature economies), labor productivity can also be measured on a per hour basis. A more sophisticated productivity measure, named total factor productivity, represents output from all inputs in the production process, not just labor. Total factor productivity growth is the result of a combination of improvements in efficiency (fewer inputs are needed for a given output) as well as technology and innovation (more output is achieved from a given input).

All growth rates are measured in real terms, that is, after adjustment for inflation. The comparative levels of productivity in this report are based on U.S. dollar measures, which are obtained by converting output in national currencies by purchasing power parities (PPPs) for 2012. These PPPs provide an adjustment for differences in relative price levels between the output produced in different countries.

About The Conference Board *Total Economy Database*[™]

This data for the Productivity Brief is drawn from The Conference Board *Total Economy Database*[™], which provides a comprehensive overview of growth rates of productivity, GDP, and employment for 123 economies representing 97 percent of the world's population and 99 percent of global output. Widely watched and utilized by analysts, the database is updated and re-benchmarked every year in January. This Productivity Brief is followed by more in-depth reports later in the year..

Related materials:

The full *Total Economy Database*[™] is available on The Conference Board website:

<http://www.conference-board.org/data/economydatabase/>

The Conference Board, Performance 2011, *Productivity, Employment, and Growth in the World's Economies*, Research Report R-1475-11-RR, New York, 2011.

The Conference Board CEO Challenge 2013 Summary Report, Research Report R-1511-13-ES, New York, January 2013.

Bert Colijn and Bart van Ark, "Will the Blood, Sweat, and Tears Poured into Europe's Troubled Economies Pay Off as Unit Labor Costs Decline and Competitiveness Improves?," *Executive Action Report*, The Conference Board Europe, Brussels (to be released on 24 January 2013).

Chart 1: Trend growth of labor productivity (GDP per person employed)

Emerging economies increasingly drive the global labor-productivity trend

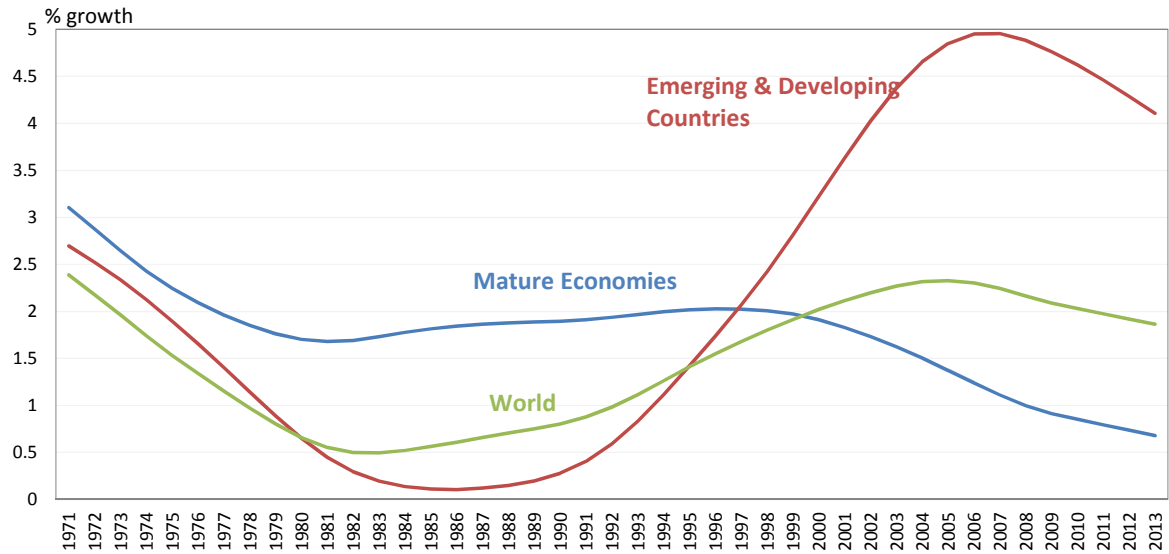
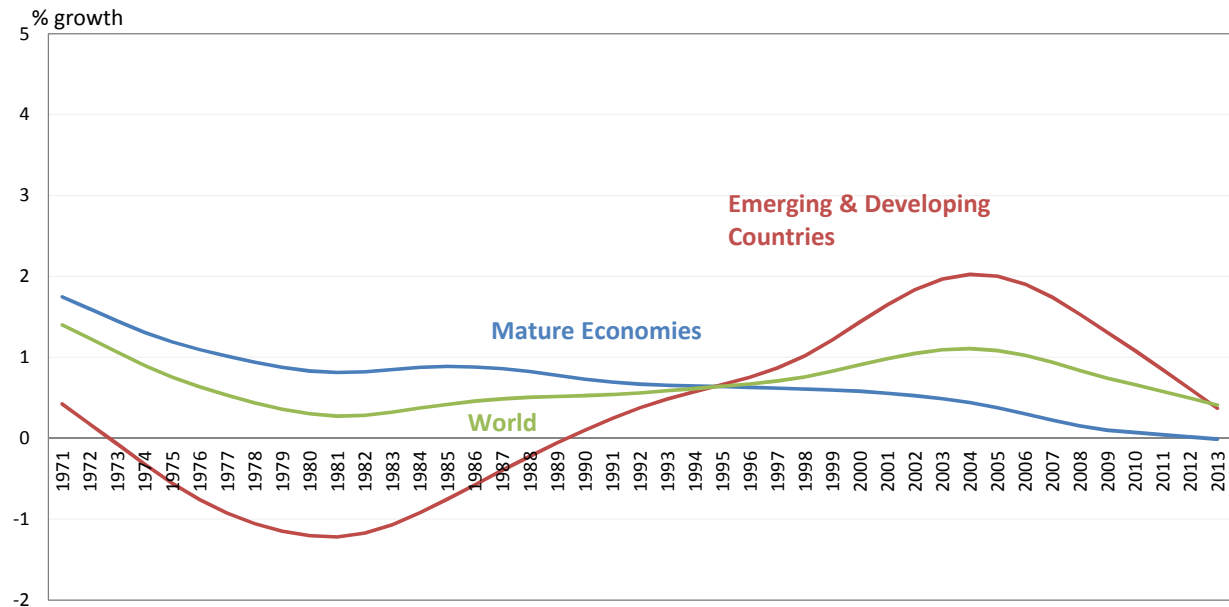


Chart 2: Trend growth of total factor productivity

Greater efficiency in emerging economies has boosted global trend in Total Factor Productivity, but impact is weakening

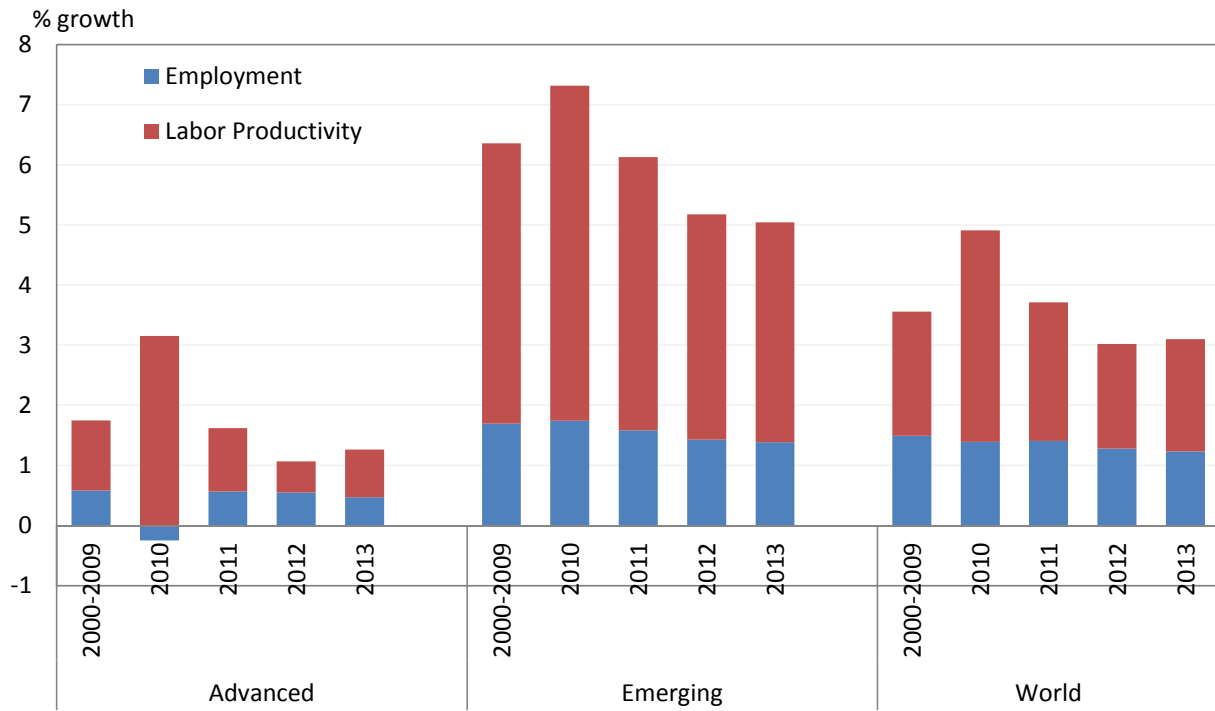


Source: The Conference Board *Total Economy Database*[™], January 2013

Note: The solid trend line is based on HP filters, including projections of productivity for 2012 and 2013.

Chart 3: Percentage Contribution of Employment and Labor Productivity to Global Growth

Productivity remains a more important driver of economic growth than increases in employment.



Source: The Conference Board *Total Economy Database*[™], January 2013