THE CONFERENCE BOARD

Performance 2009

Productivity, Employment, and Growth in the World's Economies

Productivity Brief

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Performance 2009: Productivity, Employment, and Growth in the World's Economies

Key Findings

Following a slowdown in global productivity growth in 2008, productivity will weaken further during 2009 as the global recession deepens. Productivity is typically pro-cyclical—it increases during upswings but slows or even declines in a downturn because labor and capital inputs are worked harder during booms than busts.

Global Trends

- World productivity growth slowed by more than a full percentage point in 2008, signaling that the global recession is having an effect on production efficiency for goods and services worldwide.
- Global productivity growth is likely to drop to 1.8 percent in 2009—more than half of the productivity growth rate in 2007. This strong decline reduces the potential to raise wages, drop prices, and support an increase in living standards.

The Regions

- In the United States, productivity growth increased slightly from 1.5 percent in 2007 to 1.7 percent in 2008—the result of a decline in hours worked (rapid layoffs are one cause) that exceeded the slowdown in GDP growth.
- Because of the relatively strong productivity performance of the U.S. business sector during the decade and a half before the current recession, many companies are leaner and set for a strong recovery once markets bounce back during the latter half of 2009 or in 2010.
- Average productivity growth in the European Union was 0.2 percent in 2008, down from 1.3 percent in 2007. In the original EU-15 countries, average productivity was flat during 2008, while productivity was at 3.1 percent in the new member states (EU-12) in 2008. However, this was also down from 3.8 percent in 2007.
- Within the European Union, the variation in productivity growth rates remained wide. In the original EU-15 countries in 2008, growth in output per hour ranged from negative 1.2 percent in Italy to plus 1.9 percent in Greece. Productivity growth was highest in Romania—one of the latest entrants to the European Union—at 7.3 percent in 2008.
- While Japan's output growth at 0.5% represents the slowest growth rate among the major advanced economies in 2008, productivity growth was still 0.9 percent in 2008 as labor input contracted by -0.4 percent.

- Productivity growth in the major emerging economies (China, India, Brazil, Mexico, Korea, Russia, and Turkey) was also down by 2.5 percentage points overall to 5.5 percent in 2008. The range was large—from 0.6 percent labor productivity growth in Mexico to 7.7 percent in China.
- China's 7.7 percent productivity growth rate in 2008 represents a 4.4 percentage point drop from 2007. Estimates from various sources suggest that China's GDP is projected to have slowed by 4.5 percentage points to 8.5 percent in 2008, mainly because of strongly declining exports (which were offset in part by declining imports) and slowing investment.

Looking Ahead

- Among the advanced economies, average productivity growth will virtually come to a standstill in 2009. Most countries will show a further contraction in GDP in 2009. Growth in total hours worked will slow as well, but it is unlikely to make up for the negative performance in GDP growth in most countries and will thus bring productivity growth virtually to a halt.
- In the United States, productivity growth may remain in positive territory. The Conference Board quarterly GDP forecast suggests that the United States may reach the trough of the recession by mid-2009. Large job losses are likely to continue into the second half of the year, but the silver lining is that, as a result, productivity will provide an opportunity for the improved competitiveness of U.S. firms when the recovery starts.
- Labor productivity growth in the original EU-15 countries is likely to come to a standstill as both output and total hours worked decline, reflecting a deepening of the recession during 2009 and offering little hope for recovery before 2010.
- Productivity growth in the seven major emerging economies should, on average, reach 5.9 percent in 2009, slightly up from 2008, but there will be exceptions.
- Russia is likely to see its output growth halved in 2009, bringing productivity down to about 3.5 percent in 2009 from 6 percent in 2008.
- China will record some growth in productivity, moving up to 9.1 percent in 2009 from 7.7 percent in 2008. This will be the result of an expected rapid decline in employment in China, meaning those still employed are working more efficiently.

Innovation Remains Critical for Productivity Recovery

Innovation remains a crucial trigger for growth and recovery. But it requires continued investment in capital and labor—including management and workplace practices, organizational structure, technology applications, and human resource strategies—which is a big challenge in the current economic environment.

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World productivity growth slowed by more than a full percentage point to 2.3 percent in 2008, down from 3.7 percent in 2007, signaling that the global recession is having an impact on the production efficiency of goods and services worldwide.

The United States, on the back of significant job cuts, and emerging countries—notably China and Russia—that maintained productivity strength in 2008 made positive contributions to global productivity.

Productivity, which is measured as output per hour, in the United States increased to 1.7 percent in 2008, compared to 0.9 percent in Japan and 0.2 percent in the European Union. For the seven largest emerging economies (China, India, Brazil, Mexico, Korea, Russia, and Turkey), productivity growth slowed as well, but maintained its strength at, on average, 5.4 percent in 2008.

Due to the global recession, the momentum for productivity growth will weaken further in 2009. However, because of the relatively strong productivity performance of the U.S. business sector during the years before the current recession, many companies are set for a strong recovery if markets pick up again during the latter half of 2009 or, as expected, in 2010.

Innovation remains a crucial trigger to sustain growth beyond the recovery, but it requires continued investment in capital and labor, which is a big challenge in the current economic environment.

The Impact of the Global Recession on Productivity

While most economies around the world have experienced major declines in output growth due to the evolving financial and economic crisis, productivity growth has remained solidly in positive territory during 2008, a sign that—at least for the time being—businesses are using remaining workers and capital relatively efficiently. According to The Conference Board *Total Economy Database*, output per person employed in the world economy increased at 2.3 percent. The database, which includes 123 countries accounting for 98 percent of world GDP, shows that productivity growth, while down from an exceptional 3.7 percent in 2007, was not that far below the average of 2.7 percent for the first eight years of the millennium.

The current economic crisis has had multiple effects on productivity growth and the related growth rates of output and employment. During 2008, most advanced economies passed the peak of the business cycle and therefore saw a slowing of productivity during the course of the year—productivity growth is typically pro-cyclical. However, the effects differ strongly between the three major economically advanced regions (North America, Western Europe, and Japan).

- In the United States, productivity growth increased from 1.5 percent in 2007 to 1.7 percent in 2008. This slight improvement is the result of a decline in total labor input measured as hours worked (from an annual average growth rate of 0.7 percent in 2007 to −0.6 percent in 2008). This decline exceeded the slowdown in GDP growth (from 2.2 percent in 2007 to 1.1 percent in 2008) and gave a positive boost to productivity growth. Despite the crisis, U.S. firms have, on average, become more efficient.

- Europe entered the recession later than the United States, so it still enjoyed solid employment growth during the first half of 2008. But as output growth slowed from the second quarter onward, labor productivity growth in the European Union (which consists of 27 member states) was only 0.2 percent for the whole year, down from 1.3 percent in 2007. Total hours still increased at 1.2 percent for the year as whole, while output growth was only slightly ahead of labor input growth at 1.5 percent.

- Within the European Union, the variation in productivity growth rates remained wide. In the original EU-15 countries, growth in output per hour ranged from −1.2 percent in Italy to +1.9 percent in Greece in 2008. On average, productivity in the EU-15 was flat during 2008, whereas it increased at 1.1 percent in 2007. However, productivity still increased at 3.1 percent in the new member states (EU-12) in 2008, down from 3.8 percent in 2007. The fastest labor productivity growth in Europe was posted by Romania—a relatively late entrant to the European Union—which caught up rapidly with other member states at 7.3 percent growth in 2008.

- Japan's output growth of 0.5 percent in 2008 was well below that of the United States, whereas labor input's decline of 0.4 percent was only slightly less than that in the United States. Labor productivity growth therefore increased at 0.9 percent, meaning that Japanese workers still on the job were slightly more efficient than in 2007.

The effects of the slowing world economy on productivity across emerging economies differed widely depending on each country's exposure to international trade, dependence on natural resources, the dynamics of the domestic consumption sector of the economy, the exposure of the banking system to global finance, and the fiscal resources at the government's disposal.

- Productivity growth in the major emerging economies (China, India, Brazil, Mexico, Korea, Russia, and Turkey) was down 2.5 percentage points overall to 5.5 percent in 2008. All major emerging economies (except Brazil, which benefited from the commodity boom and strengthened export performance during early 2008) were characterized by a slowdown in productivity growth during 2008, which ranged from 0.6 percent in Mexico to 7.7 percent in China.

- China's 7.7 percent productivity growth rate in 2008 was down from 12.1 percent in 2007. China's GDP is projected to have slowed by 3.5 percentage points to 8.5 percent in 2008, mainly because of strongly declining exports (in part offset by declining imports) and slowing investment. India has suffered less from the global crisis because it is less exposed to international trade and finance than China.

More Productivity Slowdown Foreseen for 2009

As the global recession deepens, productivity growth will weaken further during 2009. All advanced economies will see a further contraction in GDP for the year as a whole, or at best a standstill. Also, the slowdown in total hours worked will often not make up for the negative performance in GDP growth in many countries. As a result, growth in output per hour in advanced countries will mostly be within a −1 percent to +1 percent range in 2009.

In major emerging economies, employment growth will remain positive, but it will slow as more people will be unable to find a job. In China, total employment may even somewhat contract, as many labor intensive industries shed jobs in large numbers, making the economy as a whole look slightly more productive. The seven largest emerging economies may on average post 5.9 percent productivity growth in 2009, slightly up from 5.5 percent in 2008.

On the whole, global productivity growth may drop to 1.5 percent in 2009—half of the productivity growth rate in 2007. This strong decline in global productivity growth reduces the potential for increased wages, competitive prices, and an increase in living standards.

- Output per hour growth in the United States may slow to only 0.5 percent in 2009 on the back of a 1.7 percent decline in GDP growth (most of which will occur during the first half of the year) and a drop in total hours worked of 2.2 percent. While The Conference Board quarterly GDP forecast suggests that the United States may be reaching the trough of the recession by the middle of the year, job losses are likely to continue into the second half of 2009. Productivity is likely to recover in the second half of the year, providing an opportunity for improved competitiveness in U.S firms.

- Labor productivity growth in the original EU-15 countries is likely to come to a standstill, as both output and total hours worked will decline at around 1 percent in 2009, reflecting a deepening of the recession and offering little hope for recovery before 2010. The new EU-12 economies will also show slower productivity growth in 2009, but will remain in solid territory—well above 2 percent—as will most other emerging economies.

- China will record a slight productivity increase in 2009 to reach 9.1 percent, up from 7.7 percent in 2008. This increase is the result of the rapidly deteriorating employment situation in China, which may even lead to a contraction in economy-wide employment. The current collapse of the export industry and the slowdown in the domestic economy will significantly raise unemployment among urban workers. The 6 to 7 million jobs that have been created annually for the past few years, which represent an increase in aggregate jobs of less than 1 percent, are unlikely to be realized in 2009. On the basis of anecdotal evidence about job losses in the export sector, the difficulty of finding jobs in urban areas, and increased unemployment among graduates, a net loss of about 10–11 million jobs, or a 1.5 percent decline as to total employment in 2008, seems a reasonable assumption. Since job losses may be concentrated in labor-intensive firms and industries, the overall effect on productivity may be slightly positive.

- While Brazil and Russia both benefited from the commodity boom in 2008, Brazil looks better able to deal with the current crisis because of its diversified economy. Productivity in Brazil is, in fact, projected to increase from 3.7 percent in 2008 to 4.3 percent in 2009. Russia is likely to see its output growth halved in 2009, bringing productivity down to about 3.5 percent in 2009 from 6 percent in 2008.

Going In Strong, Coming Out Strengthened

Productivity is typically pro-cyclical, which implies that it increases during upswings but slows or even declines when the economy is in a downturn. There are several reasons for this, with one of the most important being that labor and capital inputs are worked harder during booms than busts. Another cause is that the reallocation of resources to more productive activities is faster when the economy grows rapidly than when it slows down.

For these reasons, productivity growth is expected to slow down further in 2009 in many countries. However, there are often exceptions to the pro-cyclicality of labor productivity. Take, for example, the current experiences of the United States and Europe. There are striking differences between these two regions in terms of the productivity growth rates with which they entered the current recession. Over a longer period (2000–2008), labor productivity in the United States increased at 2 percent against 1.5 percent in the European Union, and even only 1.1 percent in the original EU-15 member states, excluding the new member states that are mostly from Central and Eastern Europe. These differences reflect a more efficient use of capital, labor, and other sources of growth in the United States.

- Looking at the short-term quarterly growth rates of output per person employed, the U.S. economy has shown strong productivity performance during most of 2007 and 2008. According to estimates from the Bureau of Labor Statistics, productivity growth in the nonfarm business sector was at just over 2.5 percent during the latter half of 2007, just before the start of the recession in December. During the first half of 2008, quarterly productivity growth exceeded 3 percent, and current estimates place it around 2 percent for the second half of the year. The most recent productivity advances have been realized, however, through rapid layoffs, suggesting that the productivity of remaining workers and firms is actually strengthening.

- In the Euro Area, productivity growth has recently been surprisingly weak (below 1 percent) in the run-up to the presumed business cycle peak in the first quarter of 2008. Weak productivity growth was the result of large increases in employment coming from a relatively large labor reserve pool. During the course of 2008, output and productivity growth rates in the Euro Area turned negative, following the more traditional pattern that employment growth does not adjust as quickly to a deteriorating economy in Europe as it does in the United States.

Currently, productivity growth rates in advanced economies are falling well below the historical structural productivity trends, which represent the rate at which productivity can grow given the medium- and long-term dynamics of the economy as reflected in the growth and composition of the labor force, the change in capital and asset composition, and technology trends. Since 1995, this trend is on the order of 1.5–2.5 percent for the aggregate economy and 2–3 percent for the business or market sector of the economy.

A substantial part of any attempt to get back to the structural growth trend will come from increased productivity through investment in new capital and innovation—not just cost cutting of the current resource base. This would include investments in technological change and innovation, the skill and performance level of the labor force, and organizational intangibles, including management and workplace practices, organizational structure, ICT applications, and human resource strategies. These are big challenges in the current constrained economic climate.

High productivity growth rates also imply there will be greater efficiency of resource use once the economic environment improves. The chances of survival and, even more important, the opportunities to jump start growth ultimately depend on the resource base and the efficiency with which these resources are used. Higher productivity growth will also translate into high levels of output per hour. These higher productivity levels often reflect the presence of a strong resource base in terms of human and physical capital per worker. When maintained during the downturn, they provide firms with the means to more easily innovate themselves out of the recession.

About This Brief and The Conference Board *Total Economy Database*

This productivity brief offers an up-to-date and timely overview of annual data on key productivity, growth, and employment trends through 2008, and projections for 2009 based on The Conference Board *Total Economy Database*.[1] This brief is a prelude to our annual *Performance* report. The 2009 edition will be released in March. The basic statistical tables at the end of this brief provide a comprehensive overview of productivity, GDP, hours worked, and growth rates for 38 advanced economies in the world, most of which are members of the Organisation for Economic Co-operation and Development (OECD). In this brief, we also provide estimates for major emerging economies in Central and Eastern Europe, Brazil, Russia, India, China, Mexico, and Turkey. We also provide estimates of productivity, GDP, and employment for 123 individual countries, including all major countries in the rest of the world and covering 98 percent of world output. Underlying these tables is a publicly available database including an annual series on output, population employment, and working hours (www.conference-board.org/economics/database.cfm). The aggregate analysis is supported by The Conference Board's analysis of sectoral and industry trends, which are published in cooperation with a consortium on the EU KLEMS productivity and growth database (www.euklems.net).

Data Sources for Productivity Estimates

All data in this report are derived from the Total Economy Database of The Conference Board. Data and details of sources and data adjustments can be accessed through The Conference Board website (www.conference-board.org/economics/database.cfm).

The data for this report are based on the latest national accounts, labor surveys, and other employment statistics available for individual countries. In order to maximize international consistency, the figures are largely derived from international sources, such as the National Accounts and Labor Force Statistics of the OECD, the Statistical Office of the European Union (Eurostat), and the Foreign Labor Statistics of the Bureau of Labor Statistics (U.S. Department of Commerce). However, for many countries data from international sources have been supplemented with those from national statistical offices to increase timeliness when possible.

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[1] Until 2007, this database was published jointly with the Groningen Growth and Development Centre at University of Groningen in The Netherlands, but is currently solely maintained by The Conference Board. The data series are compatible, however, with more detailed productivity series at industry level, which are part of the *EU KLEMS Growth and Productivity Accounts*, which is maintained by a consortium led by the University of Groningen, and in which The Conference Board is a participant (www.euklems.net).

The estimates for 2008 are preliminary and those for 2009 are derived from a variety of forecasts and projections. For most advanced countries, we used the GDP and employment estimates from the latest OECD Economic Outlook of November 2008, updated with more recent national forecasts for several individual countries, including Belgium, China, France, Germany, India, Japan, the Netherlands, and the United Kingdom. For the United States, we used the The Conference Board's January 2009 estimate on GDP growth for 2008 and forecast for 2009 (www.conference-board.org/economics/chiefeconomist.cfm) to which we added an estimate of employment growth based on The Conference Board Employment Trends Index™.

The measures of productivity levels in Table 6 are expressed in terms of U.S. dollars adjusted for differences in relative price levels across countries using purchasing power parities (PPPs) as published by the OECD. For this year's dataset for the OECD (Table 6), we used purchasing power parities for the benchmark year 2005, which we updated to 2008 using the aggregate inflation rates for each country relative to the United States. The growth estimates for major regions of the world economy in Table 7, which will be published on a country-by-country basis in the full *Performance* report in March are weighted at GDP using purchasing power parities derived from the data set underlying Angus Maddison (2007), *Contours of the World Economy, 1-2030 AD; Essays in Macroeconomic History*, Oxford University Press, September 2007 (see www.ggdc.net/Maddison/Historical_Statistics/BackgroundHistoricalStatistics_09-2008.pdf). An upward adjustment of 22.6 percent was made to China's PPP-converted GDP level in U.S. dollars, reflecting a partial adjustment to recent PPP estimates by the World Bank for 2005 to better represent urban price levels.

Productivity estimates are relatively sensitive to measurement error in the underlying output and labor input figures. It is reasonable to expect that actual productivity growth rates are in a range of 0.2 percentage-point around the point-estimates of growth rates reported in Tables 1–3. Readers should also use caution when interpreting numerical rankings for individual countries in Table 6. In particular, not much significance should be attached to differences in comparative levels of productivity of less than 3 percentage-points around the point estimates.

Table 1: Summary Estimates of Growth of Labor Productivity, Real GDP and Total Hours Worked, Advanced Countries

	United States	EU-15 (old)(a)	EU-12 (new)(b)	EU-27 enlarged)(c)	Japan
Labor Productivity Growth (GDP per hour, annual average, percent)					
1987-1995	1.2	2.2			3.2
1995-2008	2.1	1.3	3.9	1.7	1.8
of which:					
2000-2008	2.0	1.1	4.4	1.5	1.8
2005	1.4	0.9	3.1	1.0	2.1
2006	0.9	1.4	5.0	1.8	1.5
2007	1.5	1.1	3.8	1.3	1.6
2008 (preliminary)	1.7	0.0	3.1	0.2	0.9
2009 (projected)	0.5	-0.1	2.4	0.0	-0.5
Real GDP Growth (annual average, percent)					
1987-1995	2.7	2.3			2.9
1995-2008	2.9	2.3	4.2	2.5	1.3
of which:					
2000-2008	2.2	1.9	4.8	2.2	1.4
2005	2.9	1.8	4.8	2.1	1.9
2006	2.8	2.9	6.5	3.3	2.4
2007	2.2	2.7	6.1	3.1	2.1
2008 (preliminary)	1.1	1.0	5.1	1.5	0.5
2009 (projected)	-1.7	-1.1	2.6	-0.5	-1.4
Growth in Total Hours Worked (annual average, percent)					
1987-1995	1.6	0.1			-0.2
1995-2008	0.8	0.9	0.2	0.7	-0.5
of which:					
2000-2008	0.2	0.8	0.5	0.7	-0.4
2005	1.5	0.9	1.6	1.1	-0.2
2006	1.8	1.5	1.5	1.5	0.9
2007	0.7	1.6	2.3	1.8	0.5
2008 (preliminary)	-0.6	1.0	2.0	1.2	-0.4
2009 (projected)	-2.2	-1.0	0.3	-0.7	-0.9

a) referring to membership of the European Union until 30 April 2004
b) referring to new membership of the European Union as of 1 May 2004 and including Bulgaria and Romania
c) referring to all members of the European Union including Bulgaria and Romania
Source: The Conference Board, Total Economy Database, January 2009

Table 2: Growth of Labor Productivity, Real GDP and Persons Employed, Emerging Countries

	Emerging Economies	Brazil	Russia*	India	China	Mexico	South Korea	Turkey
Labor Productivity Growth (GDP per persons, annual average, percent)								
1987-1995	5.5	0.2	-6.8	3.8	6.2	-0.1	5.3	1.7
1995-2008	5.1	0.8	4.4	4.7	7.7	0.9	3.4	3.4
of which:								
2000-2008	6.5	0.9	5.9	4.9	10.4	0.6	3.2	3.8
2005	6.6	-0.1	5.8	6.8	9.4	2.2	2.8	7.2
2006	7.5	1.5	6.7	7.0	10.7	1.3	3.8	5.6
2007	8.0	2.3	7.3	6.1	12.1	1.5	3.7	3.0
2008 (preliminary)	5.5	3.7	6.0	4.4	7.7	0.6	3.5	1.5
2009 (projected)	5.9	4.3	3.5	3.9	9.1	0.1	2.6	0.9
Real GDP Growth (annual average, percent)								
1987-1995	7.1	1.7	-9.1	6.0	7.9	2.3	8.3	3.8
1995-2008	6.6	2.9	4.7	6.9	8.8	3.5	4.5	4.5
of which:								
2000-2008	8.1	3.4	6.6	7.5	11.5	2.4	4.6	4.7
2005	8.2	2.9	6.4	9.4	10.4	2.8	4.2	8.4
2006	9.1	4.0	7.4	9.6	11.6	4.8	5.1	6.9
2007	9.5	4.0	8.1	8.7	13.0	3.2	5.0	4.5
2008 (preliminary)	7.0	5.7	6.8	7.0	8.5	1.9	4.2	3.3
2009 (projected)	5.9	5.9	3.5	6.0	7.5	0.4	2.7	1.6
Growth in Persons Employed (annual average, percent)								
1987-1995	1.6	1.5	-2.5	2.1	1.5	2.4	2.8	2.0
1995-2008	1.4	2.0	0.2	2.1	1.0	2.6	1.1	1.0
of which:								
2000-2008	1.5	2.5	0.7	2.5	0.9	1.7	1.4	0.8
2005	1.5	3.0	0.6	2.5	0.9	0.6	1.3	1.1
2006	1.5	2.4	0.6	2.5	0.8	3.4	1.3	1.3
2007	1.4	1.6	0.8	2.5	0.8	1.7	1.2	1.4
2008 (preliminary)	1.4	1.9	0.8	2.5	0.8	1.4	0.6	1.7
2009 (projected)	-0.1	1.5	0.0	2.0	-1.5	0.3	0.1	0.7

* The growth rates for Russia from 1987-1995 refer to 1990-1995

Source: The Conference Board, Total Economy Database, January 2009

Table 3: Labor Productivity Growth (GDP per hour, annual average, percent)

	1987-1995	1995-2008	2000-2008	2005	2006	2007	*2008 preliminary*	*2009 projected*
United States	1.2	2.1	2.0	1.4	0.9	1.5	1.7	0.5
European Union (EU-15, old)(a)	2.2	1.3	1.1	0.9	1.4	1.1	0.0	-0.1
Austria	2.8	1.9	0.8	-0.5	0.6	1.0	0.3	-0.2
Belgium	2.2	1.2	0.8	-0.7	1.0	1.3	-0.1	-0.3
Denmark	2.7	0.9	0.8	1.4	1.8	-0.8	-0.3	1.8
Finland	3.2	2.3	2.0	1.8	3.3	2.4	0.3	0.6
France	2.2	1.4	1.0	1.5	0.0	1.3	-0.6	-0.3
Germany	2.5	1.5	1.1	1.4	2.4	0.6	-0.1	-1.5
Greece	0.8	2.3	2.9	3.0	2.9	2.5	1.9	1.5
Ireland	2.4	3.4	2.3	0.8	1.4	2.5	-0.3	1.9
Italy	2.1	0.3	-0.1	0.4	0.1	-0.2	-1.2	-0.7
Luxembourg	2.0	1.6	1.0	3.1	0.2	-0.5	-0.1	0.7
Netherlands	1.8	1.3	1.0	0.1	0.8	0.6	0.7	-1.0
Portugal	1.6	1.7	0.7	1.9	0.2	2.2	-0.3	0.3
Spain	2.3	0.3	0.9	-0.8	0.8	0.8	1.4	1.4
Sweden	1.3	2.2	2.0	3.1	2.7	-0.4	-0.4	1.2
U.K.	2.0	2.1	2.0	0.9	2.8	2.6	0.2	0.5
European Union (EU-12, new)(b)		3.9	4.4	3.1	5.0	3.8	3.1	2.4
Bulgaria		1.7	3.3	3.8	3.2	2.8	3.2	3.0
Cyprus		1.4	1.2	2.0	1.5	1.5	1.6	1.6
Czech Republic		3.4	4.3	4.7	4.8	3.8	3.1	3.0
Estonia		6.1	5.3	6.3	5.2	5.7	-0.2	0.8
Hungary		2.3	2.2	4.2	3.5	1.6	2.6	0.2
Latvia		5.8	5.8	8.7	6.9	6.6	-1.8	1.1
Lithuania		5.6	6.3	1.7	6.9	5.7	5.2	2.7
Malta		0.5	-0.2	2.2	2.0	1.0	1.1	1.4
Poland		4.1	3.2	0.7	3.3	2.5	1.7	2.1
Romania		4.5	7.9	4.9	9.3	6.0	7.3	4.0
Slovakia		5.1	5.1	2.4	6.5	6.7	4.8	2.9
Slovenia		4.1	3.8	4.2	4.7	4.0	2.6	2.7
European Union (EU-27, enlarged)(c)		1.7	1.5	1.0	1.8	1.3	0.2	0.0
Japan	3.2	1.8	1.8	2.1	1.5	1.6	0.9	-0.5
Other OECD members	1.3	2.0	2.1	2.0	3.0	2.3	0.9	0.8
Australia	1.4	1.8	1.6	0.6	1.7	1.7	0.3	1.0
Canada	1.1	1.2	0.9	2.5	0.8	0.5	-1.0	0.3
Iceland	0.5	2.5	2.7	5.0	-0.7	-1.3	0.3	-3.9
Mexico	-0.3	0.7	0.7	-1.1	2.7	2.2	0.6	0.1
New Zealand	1.5	1.2	1.1	0.8	0.8	2.0	-0.6	0.9
Norway	3.1	1.7	1.3	1.3	-0.6	-0.7	-0.5	0.4
South Korea	5.9	4.5	4.4	4.6	6.0	3.7	3.5	2.6
Switzerland	0.8	1.1	0.9	1.6	1.7	1.2	0.1	-0.5
Turkey	1.5	3.3	4.0	7.2	5.6	3.0	1.5	0.9

a) referring to membership of the European Union until 30 April 2004

b) referring to new membership of the European Union as of 1 May 2004 and including Bulgaria and Romania

c) referring to all members of the European Union including Bulgaria and Romania

Source: The Conference Board, Total Economy Database, January 2009

Table 4: Real GDP Growth (annual average, percent)

	1987-1995	1995-2008	2000-2008	2005	2006	2007	*2008 preliminary*	*2009 projected*
United States	2.7	2.9	2.2	2.9	2.8	2.2	1.1	-1.7
European Union (EU-15, old)(a)	2.3	2.3	1.9	1.8	2.9	2.7	1.0	-1.1
Austria	2.8	2.3	2.0	2.0	3.3	3.4	1.9	-0.1
Belgium	2.4	2.2	1.9	1.7	2.8	2.8	1.5	-0.5
Denmark	1.8	2.0	1.5	2.5	3.9	1.8	0.2	-0.5
Finland	0.8	3.7	3.0	2.8	4.9	4.4	2.1	0.6
France	2.1	2.1	1.7	1.9	2.2	2.2	0.9	-0.7
Germany	2.7	1.5	1.2	0.8	2.9	2.5	1.3	-2.2
Greece	1.8	3.9	4.2	3.8	4.2	4.0	3.2	1.9
Ireland	5.3	6.5	4.7	6.0	5.7	6.1	-1.8	-1.7
Italy	1.9	1.3	0.9	0.6	1.8	1.5	-0.4	-1.0
Luxembourg	5.2	4.8	3.9	5.0	6.1	4.5	2.4	-0.5
Netherlands	2.9	2.8	2.0	2.0	3.4	3.5	2.2	-1.0
Portugal	3.2	2.2	1.0	0.9	1.3	1.8	0.5	-0.2
Spain	2.8	3.5	3.1	3.6	3.9	3.7	1.3	-0.9
Sweden	1.2	2.9	2.5	3.3	4.1	2.7	0.8	0.0
U.K.	2.0	2.7	2.4	1.8	2.9	3.0	0.8	-1.4
European Union (EU-12, new)(b)		4.2	4.8	4.8	6.5	6.1	5.1	2.6
Bulgaria		3.1	5.7	6.2	6.3	6.2	6.5	4.5
Cyprus		3.6	3.5	3.9	4.1	4.4	3.7	2.9
Czech Republic		3.3	4.4	6.4	6.4	5.9	4.4	2.5
Estonia		6.5	6.8	9.2	10.4	6.3	-1.3	-1.2
Hungary		3.7	3.5	4.1	3.9	1.3	1.4	-0.5
Latvia		6.8	7.7	10.6	11.9	10.2	-0.8	-2.7
Lithuania		6.4	7.4	7.8	7.8	8.9	3.8	0.0
Malta		2.3	1.8	3.5	3.2	3.7	2.4	2.0
Poland		4.7	4.2	3.6	6.2	6.5	5.4	3.0
Romania		3.4	6.4	4.2	7.9	6.0	8.5	4.7
Slovakia		5.1	6.1	6.0	8.3	10.7	7.3	4.0
Slovenia		4.4	4.4	4.3	5.9	6.8	4.4	2.9
European Union (EU-27, enlarged)(c)		2.5	2.2	2.1	3.3	3.1	1.5	-0.6
Japan	2.9	1.3	1.4	1.9	2.4	2.1	0.5	-1.4
Other OECD members	3.4	3.6	3.2	3.9	4.3	3.8	2.3	1.0
Australia	3.3	3.6	3.4	3.0	3.2	4.4	2.5	1.7
Canada	2.0	3.0	2.3	3.1	2.8	2.7	0.5	-0.5
Iceland	0.3	4.3	3.9	7.5	4.4	3.8	1.5	-9.3
Mexico	2.3	3.5	2.4	2.8	4.8	3.2	1.9	0.4
New Zealand	2.0	2.8	2.9	2.7	1.6	2.9	-0.5	-0.4
Norway	2.7	2.9	2.5	2.7	2.5	3.7	2.7	1.3
South Korea	8.3	4.5	4.6	4.2	5.1	5.0	4.2	2.7
Switzerland	1.4	1.9	1.9	2.4	3.2	3.3	1.9	-0.2
Turkey	3.8	4.5	4.7	8.4	6.9	4.5	3.3	1.6

a) referring to membership of the European Union until 30 April 2004

b) referring to new membership of the European Union as of 1 May 2004 and including Bulgaria and Romania

c) referring to all members of the European Union including Bulgaria and Romania

Source: The Conference Board, Total Economy Database, January 2009

Table 5: Total hours growth (annual average, percent)

	1987-1995	1995-2008	2000-2008	2005	2006	2007	*2008 preliminary*	*2009 projected*
United States	1.6	0.8	0.2	1.5	1.8	0.7	-0.6	-2.2
European Union (EU-15, old)(a)	0.1	0.9	0.8	0.9	1.5	1.6	1.0	-1.0
Austria	0.0	0.4	1.2	2.5	2.7	2.4	1.5	0.0
Belgium	0.2	0.9	1.1	2.3	1.8	1.5	1.5	-0.2
Denmark	-0.9	1.1	0.7	1.0	2.0	2.6	0.5	-2.2
Finland	-2.3	1.3	1.0	1.0	1.5	1.9	1.8	0.0
France	-0.1	0.7	0.7	0.4	2.1	0.9	1.5	-0.4
Germany	0.2	0.0	0.0	-0.6	0.5	1.8	1.4	-0.8
Greece	1.0	1.5	1.2	0.8	1.3	1.5	1.3	0.4
Ireland	2.8	2.9	2.3	5.2	4.3	3.5	-1.5	-3.5
Italy	-0.2	0.9	1.0	0.2	1.7	1.7	0.8	-0.4
Luxembourg	3.1	3.1	2.9	1.8	6.0	5.0	2.5	-1.2
Netherlands	1.1	1.4	0.9	1.9	2.6	2.8	1.5	0.0
Portugal	1.6	0.4	0.3	-0.9	1.1	-0.5	0.9	-0.5
Spain	0.5	3.2	2.2	4.4	3.0	2.9	-0.1	-2.3
Sweden	-0.1	0.7	0.6	0.2	1.3	3.2	1.2	-1.2
U.K.	-0.1	0.6	0.3	0.9	0.1	0.4	0.6	-1.9
European Union (EU-12, new)(b)		0.2	0.5	1.6	1.5	2.3	2.0	0.3
Bulgaria		1.4	2.3	2.4	3.1	3.3	3.2	1.4
Cyprus		2.2	2.4	2.0	2.6	2.9	2.1	1.3
Czech Republic		-0.1	0.2	1.6	1.5	2.0	1.3	-0.4
Estonia		0.4	1.4	2.7	4.9	0.6	-1.1	-2.0
Hungary		1.4	1.3	-0.1	0.4	-0.3	-1.2	-0.8
Latvia		1.0	1.8	1.7	4.7	3.5	1.0	-3.7
Lithuania		0.7	1.0	6.0	0.9	3.0	-1.3	-2.5
Malta		1.7	2.1	1.3	1.2	2.7	1.3	0.6
Poland		0.6	0.9	2.9	2.9	3.9	3.7	0.8
Romania		-1.1	-1.4	-0.7	-1.3	0.0	1.2	0.6
Slovakia		0.0	1.0	3.5	1.6	3.7	2.4	1.0
Slovenia		0.3	0.6	0.2	1.2	2.7	1.8	0.1
European Union (EU-27, enlarged)(c)		0.7	0.7	1.1	1.5	1.8	1.2	-0.7
Japan	-0.2	-0.5	-0.4	-0.2	0.9	0.5	-0.4	-0.9
Other OECD members	2.0	1.6	1.1	1.8	1.2	1.5	1.4	0.2
Australia	1.9	1.7	1.8	2.3	1.5	2.7	2.2	0.6
Canada	0.9	1.8	1.4	0.5	1.9	2.2	1.4	-0.8
Iceland	-0.2	1.7	1.2	2.4	5.2	5.2	1.3	-5.7
Mexico	2.6	2.8	1.6	3.9	2.0	1.0	1.4	0.3
New Zealand	0.4	1.5	1.8	1.8	0.8	0.9	0.0	-1.3
Norway	-0.4	1.3	1.2	1.4	3.2	4.4	3.2	0.9
South Korea	2.3	0.1	0.3	-0.4	-0.8	1.2	0.6	0.1
Switzerland	0.6	0.9	0.9	0.8	1.6	2.1	1.8	0.4
Turkey	2.2	1.2	0.7	1.1	1.3	1.4	1.7	0.7

a) referring to membership of the European Union until 30 April 2004
b) referring to new membership of the European Union as of 1 May 2004 and including Bulgaria and Romania
c) referring to all members of the European Union including Bulgaria and Romania
Source: The Conference Board, Total Economy Database, January 2009

Table 6: Labor Productivity and Per Capita Income Levels and the Effects of Working Hours and Labor Utilization, 2008

	Labor Productivity			Effect of Working Hours	Effect of Employment/ Population Ratio	Average Per Capita Income		
	GDP/hour (US$)	as % of U.S.	Rank			GDP/Capita (US$)	as % of U.S.	Rank
Luxembourg	72.7	133.4%	1	-12.1%	55.0%	82,446	176%	1
Norway	70.2	128.8%	2	-25.9%	17.1%	56,083	120%	2
United States	54.5	100.0%	3	0.0%	0.0%	46,759	100%	3
Belgium	54.4	99.8%	4	-8.7%	-10.8%	37,567	80%	13
Netherlands	53.6	98.3%	5	-18.8%	6.8%	40,373	86%	7
Austria	53.4	98.0%	6	-14.3%	2.6%	40,363	86%	8
France	52.2	95.8%	7	-10.9%	-11.7%	34,217	73%	18
Germany	50.4	92.4%	8	-17.8%	0.8%	35,248	75%	16
Ireland	48.7	89.4%	9	3.4%	4.2%	45,378	97%	4
United Kingdom	47.8	87.7%	10	-8.1%	-2.2%	36,184	77%	15
Sweden	46.9	86.0%	11	-7.7%	3.6%	38,248	82%	11
Denmark	46.1	84.6%	12	-9.6%	6.4%	38,083	81%	12
Italy	45.2	82.9%	13	-8.7%	-7.2%	31,345	67%	19
Australia	44.7	82.0%	14	-1.7%	4.3%	39,563	85%	9
Finland	44.7	82.0%	15	-3.2%	0.2%	36,961	79%	14
Switzerland	44.5	81.7%	16	-9.2%	16.1%	41,428	89%	6
Canada	43.1	79.0%	17	-0.6%	5.4%	39,228	84%	10
Spain	40.6	74.4%	18	-3.2%	-5.9%	30,520	65%	21
Iceland	38.9	71.4%	19	1.2%	16.1%	41,470	89%	5
Japan	38.7	71.0%	20	0.3%	2.8%	34,658	74%	17
Greece	37.1	68.1%	21	6.8%	-8.8%	30,907	66%	20
Slovenia	35.5	65.1%	22	-1.9%	0.6%	29,829	64%	22
Cyprus	31.1	57.1%	23	2.7%	1.5%	28,670	61%	23
New Zealand	31.1	57.0%	24	-2.1%	5.1%	28,056	60%	24
Malta	30.8	56.5%	25	0.2%	-9.9%	21,881	47%	28
Slovak Republic	30.1	55.3%	26	0.1%	-8.6%	21,870	47%	29
Portugal	26.1	47.9%	27	-0.6%	0.1%	22,187	47%	27
Hungary	26.0	47.6%	28	5.7%	-10.5%	20,013	43%	31
Czech Republic	25.7	47.2%	29	5.0%	3.2%	25,901	55%	26
South Korea	25.0	45.8%	30	10.4%	0.5%	26,476	57%	25
Lithuania	23.0	42.1%	31	2.4%	-5.9%	18,056	39%	32
Estonia	22.0	40.4%	32	3.6%	1.7%	21,349	46%	30
Poland	21.4	39.2%	33	4.4%	-6.5%	17,411	37%	34
Turkey	20.7	38.0%	34	3.1%	-13.2%	13,001	28%	35
Latvia	19.0	34.8%	35	2.3%	1.3%	17,965	38%	33
Romania	15.5	28.4%	36	2.5%	-3.7%	12,740	27%	38
Bulgaria	14.8	27.1%	37	-1.7%	2.3%	12,956	28%	36
Mexico	14.8	27.1%	38	5.5%	-5.3%	12,753	27%	37
EU-15 (present)(a)	47.18	86.6%		-9.60%	-3.60%	34,304	73%	
EU-12 (new)(b)	21.36	39.2%		3.13%	-4.16%	17,844	38%	
EU-27 (enlarged)(c)	41.14	75.5%		-5.48%	-4.03%	30,849	66%	

a) referring to membership of the European Union until 30 April 2004

b) referring to new membership of the European Union as of 1 May 2004 and including Bulgaria and Romania

c) referring to all members of the European Union including Bulgaria and Romania

Source: The Conference Board, Total Economy Database, January 2009; with GDP converted to US$ at 2008 PPPs (EKS basis, updated from 2005 benchmark)

Table 7a: Global Outlook for Growth of GDP per Person Employed, 2007-2009

	2007	***2008***	***2009***
	GDP per Person Employed	GDP per Person Employed	GDP per Person Employed
US	1.1	1.6	0.4
EU-15	1.1	-0.1	-0.2
Japan	1.6	0.8	-0.5
Other*	2.2	1.1	1.3
Advanced Countries	**1.3**	**0.7**	**0.1**
China	12.1	7.7	9.1
India	6.1	4.4	3.9
Other developing Asia	4.1	3.1	3.1
Latin America	2.7	3.2	2.2
Middle East	1.9	2.0	1.7
Africa	3.4	3.3	3.1
Central & Eastern Europe	3.5	2.5	1.9
Other, incl. CIS**	7.8	6.1	4.1
Emerging Market and Developing Countries	**6.8**	**4.9**	**4.9**
World	**3.7**	**2.3**	**1.8**

Note: GDP per Person Employed levels are included for 123 countries
*Other includes Canada, Switzerland, Norway, Israel, Iceland, Cyprus, Korea, Australia, Taiwan Province of China, Hong Kong, Singapore, New Zealand.
**Other includes Commonwealth of Independent States and Mongolia
Source: The Conference Board, Total Economy Database (January 2009), OECD, IMF, World Bank

Table 7b: Global Outlook for Growth of Gross Domestic Product, 2007-2009

		2007		***2008***		***2009***	
	Distribution of World Output 2008	GDP Growth	Contribu-tion	Projected GDP Growth	Contribu-tion	Projected GDP Growth	Contribu-tion
US	19.3%	2.2	0.4	1.1	0.2	-1.7	-0.3
EU-15	17.0%	2.7	0.5	1.0	0.2	-1.1	-0.2
Japan	5.9%	2.1	0.1	0.5	0.0	-1.4	-0.1
Other*	7.5%	4.5	0.3	2.8	0.2	2.0	0.2
Advanced Countries	**49.8%**	**2.7**	1.3	**1.2**	0.6	**-0.9**	-0.4
China	15.2%	13.0	2.0	8.5	1.3	7.5	1.1
India	6.9%	8.7	0.6	7.0	0.5	6.0	0.4
Other developing Asia	7.0%	6.4	0.4	5.4	0.4	5.4	0.4
Latin America	6.1%	6.0	0.4	6.7	0.4	5.6	0.3
Middle East	3.8%	5.3	0.2	5.5	0.2	5.2	0.2
Africa	3.4%	6.1	0.2	6.1	0.2	5.9	0.2
Central & Eastern Europe	3.5%	5.4	0.2	4.2	0.1	2.3	0.1
Other, incl. CIS**	4.5%	8.9	0.4	7.2	0.3	4.8	0.2
Emerging Market and Developing Countries	**50.3%**	**8.7**	4.4	**6.8**	3.4	**5.9**	3.0
World	**100%**	**5.7**		**4.1**		**2.5**	

Note: GDP are included for 123 countries; weights are relating to all countries in world economy

Note: The distribution of world GDP is based on purchasing-power-parity valuation of country GDPs from Angus Maddison (2007), including an upward adjustment of 22.6% for China's purchasing power parities for 2005.

Table 7c: Global Outlook for Employment Growth, 2007-2009

		2007		***2008***		***2009***	
	Distribution of World Employ-ment 2008	Employ-ment Growth	Contribu-tion	Employ-ment Growth	Contribu-tion	Employ-ment Growth	Contribu-tion
US	5.1%	1.1	0.1	-0.5	0.0	-2.1	-0.1
EU-15	6.3%	1.6	0.1	1.0	0.1	-0.9	-0.1
Japan	2.2%	0.5	0.0	-0.3	0.0	-0.9	0.0
Other*	2.8%	2.2	0.1	1.7	0.0	0.7	0.0
Advanced Countries	**16.4%**	**1.4**	0.2	**0.5**	0.1	**-1.0**	-0.2
China	26.8%	0.8	0.2	0.8	0.2	-1.5	-0.4
India	15.8%	2.5	0.4	2.5	0.4	2.0	0.3
Other developing Asia	12.7%	2.2	0.3	2.2	0.3	2.2	0.3
Latin America	6.3%	3.2	0.2	3.4	0.2	3.3	0.2
Middle East	2.6%	3.3	0.1	3.4	0.1	3.4	0.1
Africa	12.2%	2.6	0.3	2.6	0.3	2.6	0.3
Central & Eastern Europe	2.6%	1.8	0.0	1.7	0.0	0.4	0.0
Other, incl. CIS**	4.6%	1.0	0.0	1.0	0.0	0.6	0.0
Emerging Market and Developing Countries	**83.6%**	**1.9**	1.6	**1.9**	1.6	**1.0**	0.9
World Total	**100.0%**	**1.8**		**1.7**		**0.7**	

Note: Employment levels are included for 123 countries

*Other includes Canada, Switzerland, Norway, Israel, Iceland, Cyprus, Korea, Australia, Taiwan Province of China, Hong Kong, Singapore, New Zealand.

**Other includes Commonwealth of Independent States and Mongolia

Source: The Conference Board, Total Economy Database (January 2009), OECD, IMF, World Bank