

# International Comparisons of GDP per Capita and per Hour, 1960–2010



Division of International Labor Comparisons

August 15, 2011

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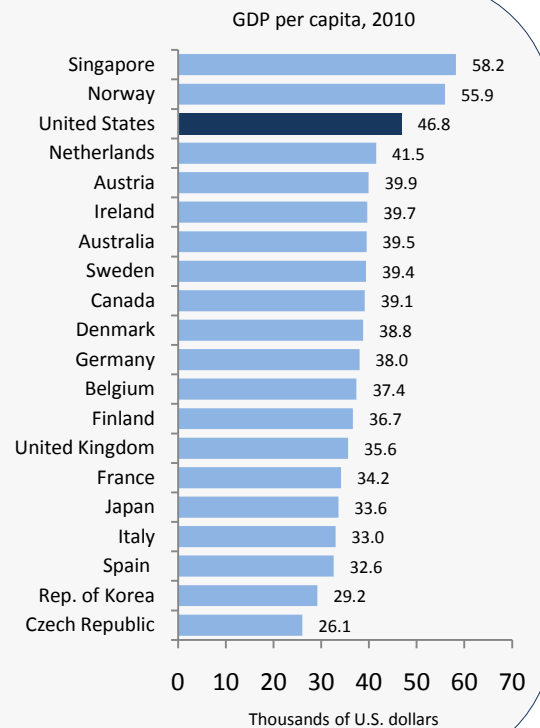
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**GDP per capita**, when converted to U.S. dollars using purchasing power parities, is the most widely used income measure for international comparisons of living standards.

In 2010, Singapore had the highest GDP per capita followed by Norway and then the United States.

GDP per capita was lowest in the Czech Republic and the Republic of Korea.

For more details, see page 3.



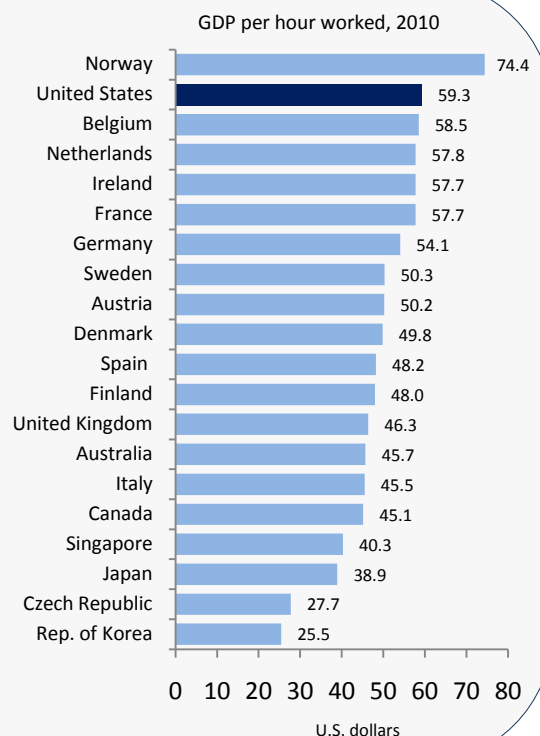
**GDP per hour worked** is a general measure of labor productivity for the entire economy.

In 2010, Norway and the United States had the highest GDP per hour worked followed by Belgium.

GDP per hour worked was lowest in the Republic of Korea and the Czech Republic.

While Singapore had the highest level of GDP per capita, it had one of the lowest levels of GDP per hour worked.

For more details, see page 5.



# Introduction

This report updates the international comparisons report on GDP per capita and related measures produced annually by the Bureau of Labor Statistics (BLS). Charts on current levels and recent trends of GDP per capita, GDP per hour worked, average annual hours worked, and employment are followed by tables with time series and growth rates of these and related indicators. The estimates shown in this report are based on data available as of August 2010. Data are available for all countries through 2010.

## ***Concepts and Definitions***

Gross Domestic Product (GDP) is defined as the value of all market and some nonmarket goods and services produced within a country's geographic borders. As such, it is the most comprehensive measure of a country's economic output that is estimated by statistical agencies. GDP per capita may therefore be viewed as a rough indicator of a nation's economic well being, while GDP per hour worked can provide a general picture of a country's productivity.

These indicators, however, are only approximations. The total production of a country consists of many things that are not included in its GDP, for example leisure, health, safety, and cultural resources. Due to these types of data limitations, small differences in rankings should not be considered economically significant. Nevertheless, these measures are commonly used to compare the economic performance of different countries.

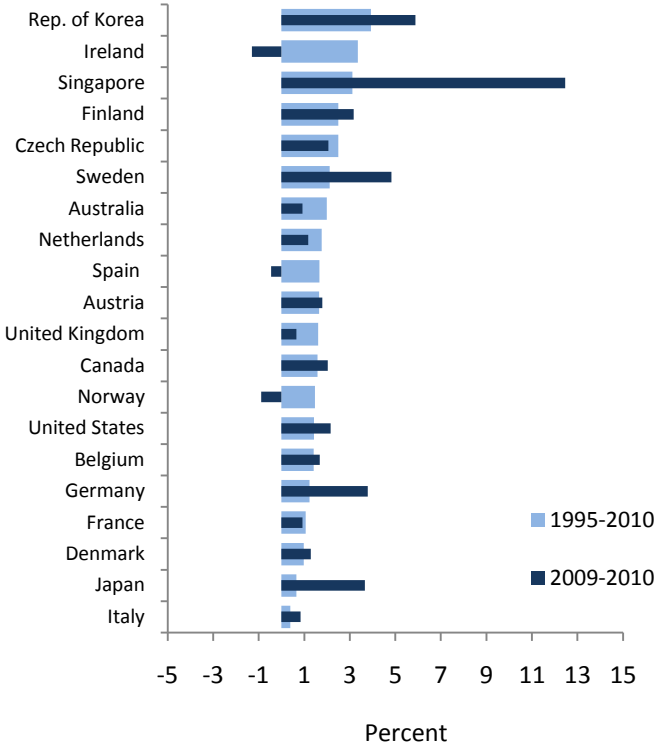
For international comparisons of levels of GDP, GDP per capita, or GDP per hour worked, the output has to be measured in a common currency unit. BLS converted the output measures from national currency units to U.S. dollars through the use of purchasing power parities (PPPs). PPPs are currency conversion rates that allow output in different currency units to be expressed in a common unit of value - in this case, U.S. dollars. The PPP for a given country is a ratio, where the numerator is the number of national currency units needed to purchase a specific basket of goods and services in that country and the denominator is the number of U.S. dollars needed to purchase a similar basket of goods in the United States, the base country.

This report now uses 2010 PPPs instead of 2009 PPPs. In addition, since the previous update, the organizations that publish the PPPs have revised their earlier data. As a result, GDP for some countries may have changed.

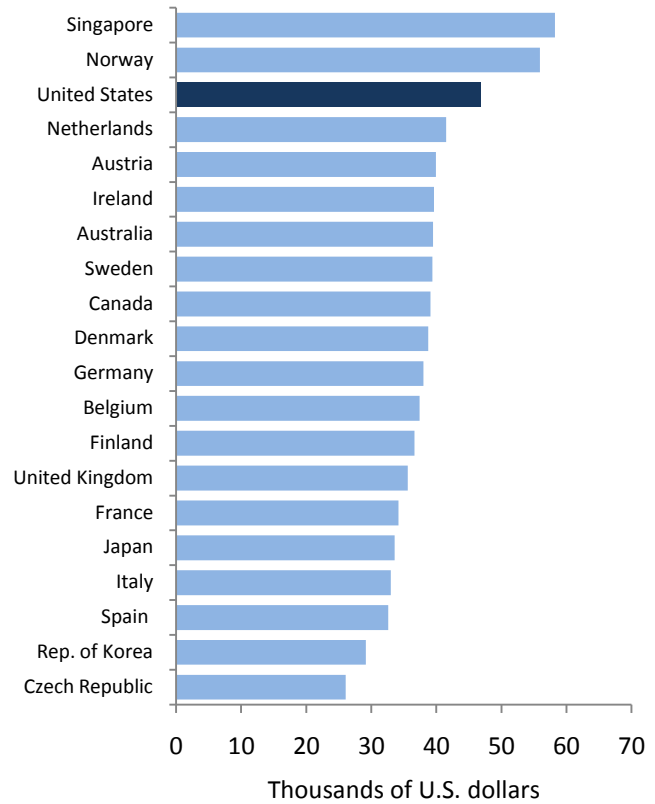
For further information on sources and methods see technical notes. Additional historical data on GDP per capita, GDP per hour worked, and related measures are available on the Internet, at [www.bls.gov/fls/#gdp](http://www.bls.gov/fls/#gdp).

- **GDP per capita** is a basic indicator of a country's economic well-being. GDP measures the value of all final goods and services produced within a country.
- In 2010, real GDP per capita grew in 17 of the 20 countries compared. The greatest increase occurred in Singapore followed by The Republic of Korea. This trend is in line with the average annual changes over the 1995–2010 period, when real GDP per capita increased in all 20 countries compared, with the largest increases occurring in the Republic of Korea, Ireland, and Singapore.
- The charts on page 4 show that countries began experiencing declines in real GDP per capita around 2007. Several countries, such as Singapore and the Republic of Korea have shown evidence of strong increases from 2009 to 2010, however.
- The country with the highest GDP per capita, Singapore, has a GDP per capita value that is more than twice that of the country with lowest value, the Czech Republic

**Real GDP per capita**  
Average annual growth rates



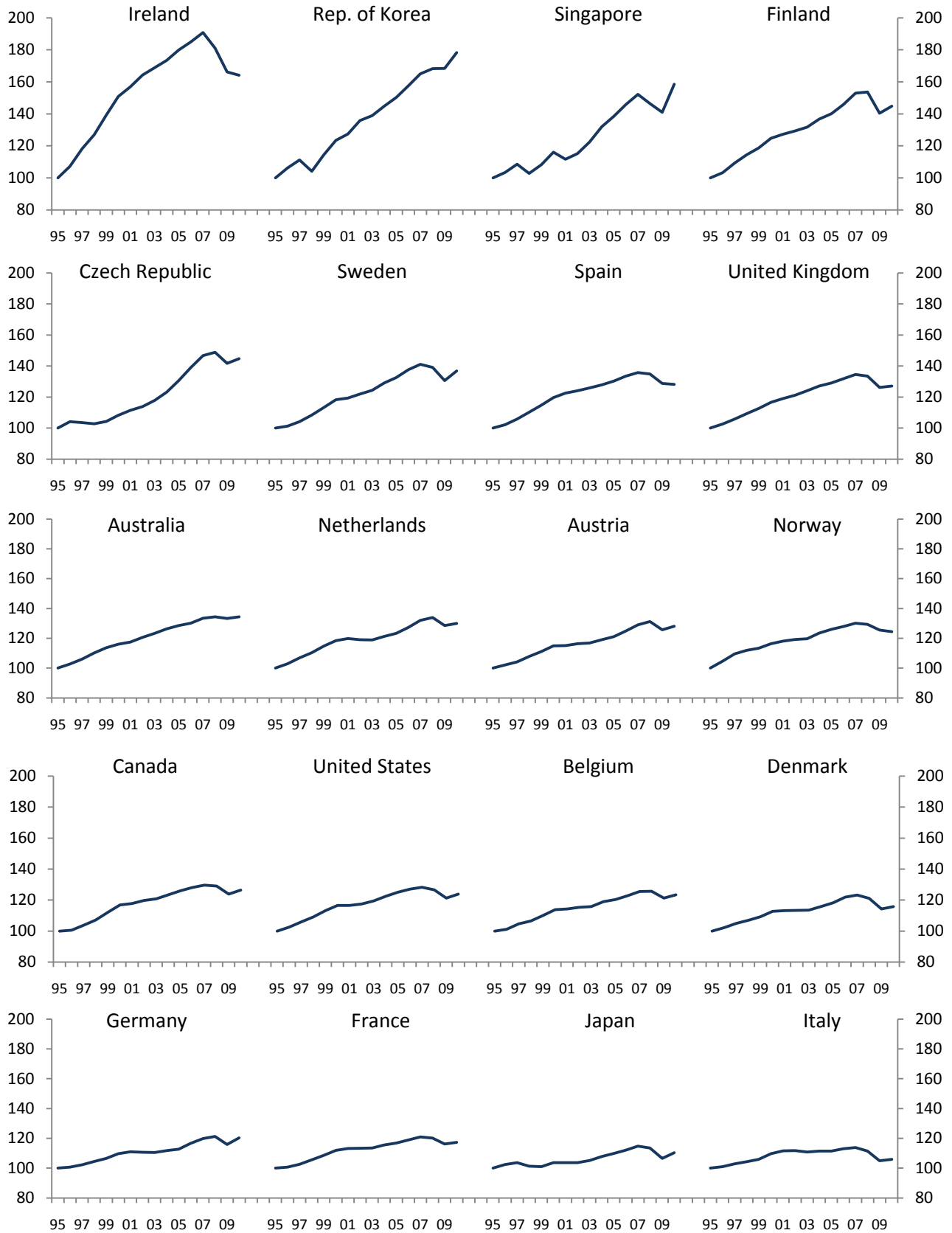
**GDP per capita, 2010**  
Converted to U.S. dollars using 2010 PPPs



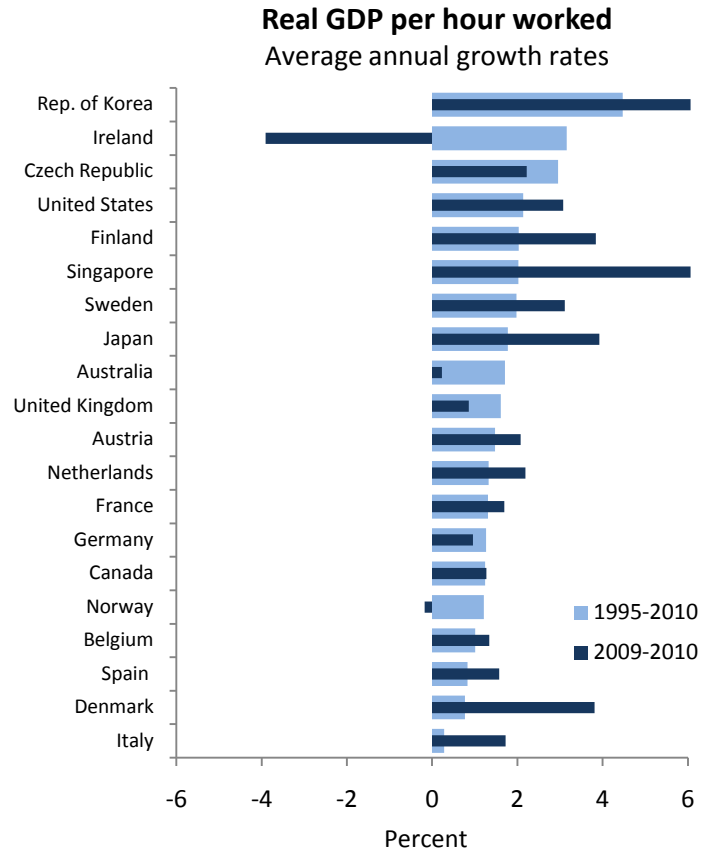
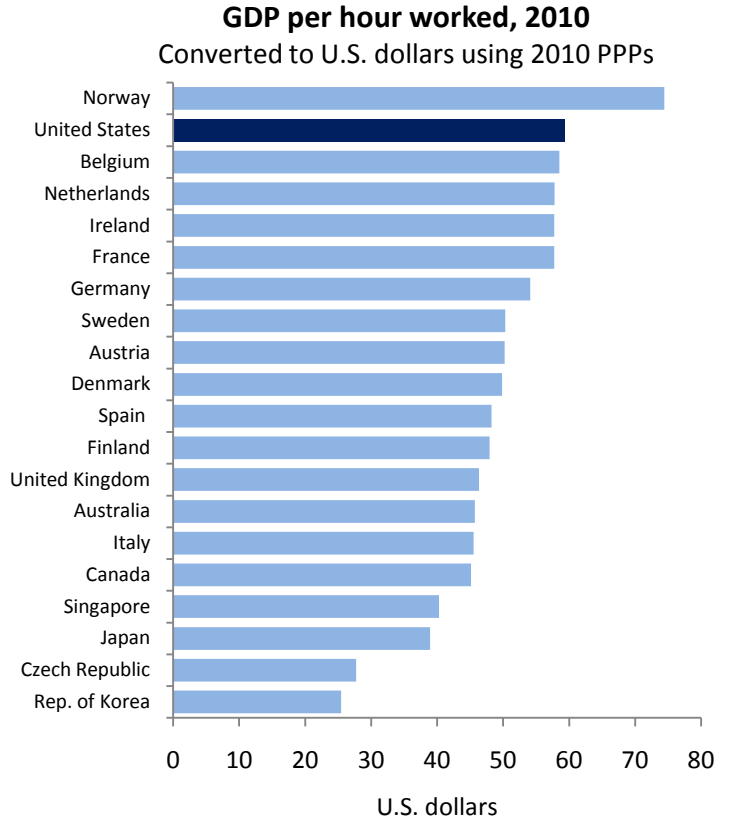
# Real GDP per capita, by country, 1995–2010

Converted to U.S. dollars using 2010 PPPs

Index: 1995 = 100



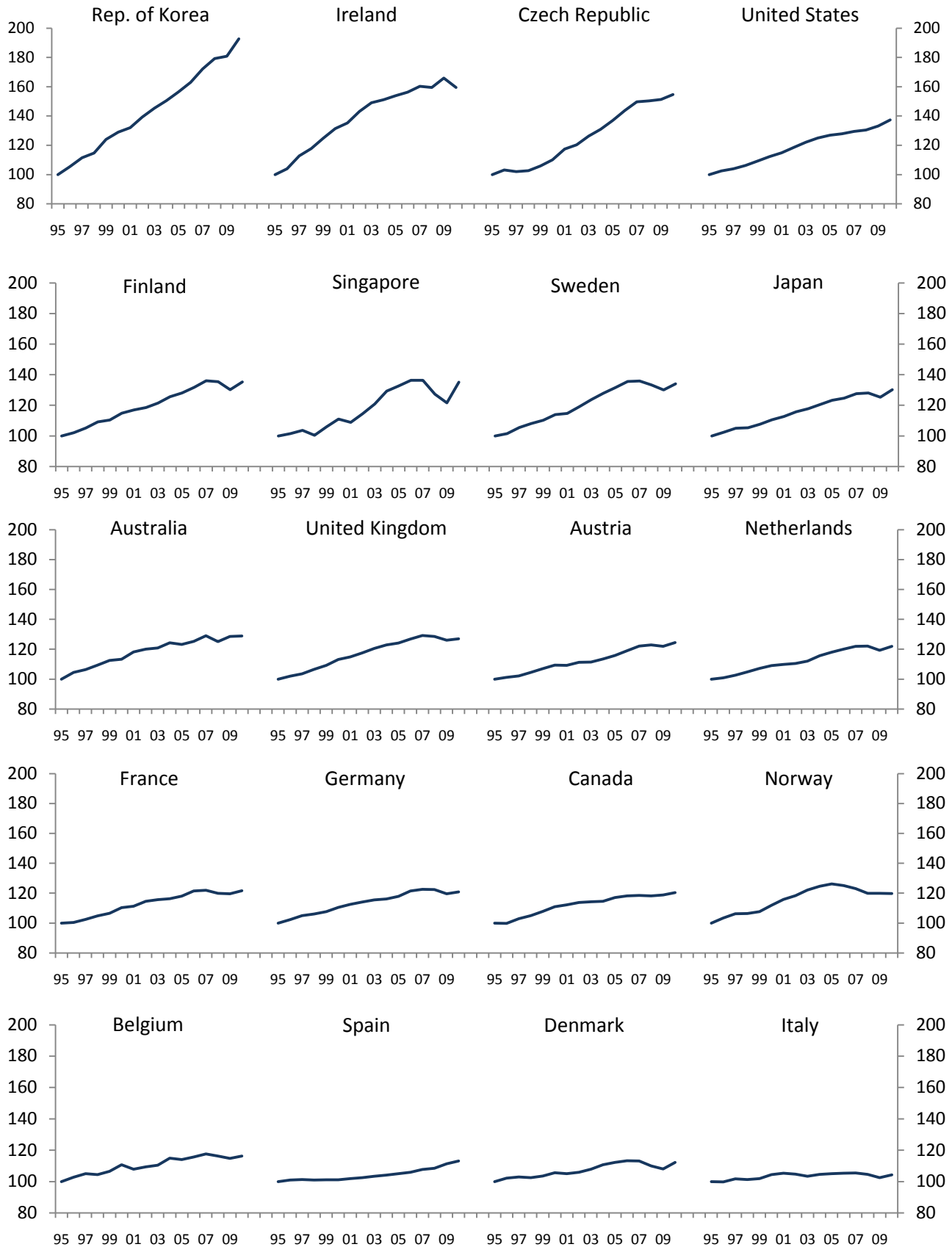
- In 2010, Norway had the highest level of GDP per hour among the countries covered; approximately 25 percent higher than the next highest ranked country, the United States, and roughly three times the level of the Republic of Korea.
- While Singapore had the highest levels of GDP per capita, it had a relatively low level of GDP per hour worked. The difference is related to Singapore having the highest average annual hours worked per employed person (see page 15) and the highest employment to population ratio (see page 16) of all countries covered.
- Countries with low levels of GDP per hour worked such as Singapore and Korea often also have a high number of annual average hours worked per employed person. For more details, see page 8.
- When real GDP increases faster than hours worked, real GDP per hour worked rises. Conversely when hours worked rise faster than real GDP, real GDP per hour worked declines.
- Over the 1995–2010 period, all countries compared experienced increases in real GDP per hour worked. Most countries also saw increases in real GDP per hour worked in 2009. Only Ireland and Norway experienced declines in real GDP per hour worked.



# Real GDP per hour worked, by country, 1995–2010

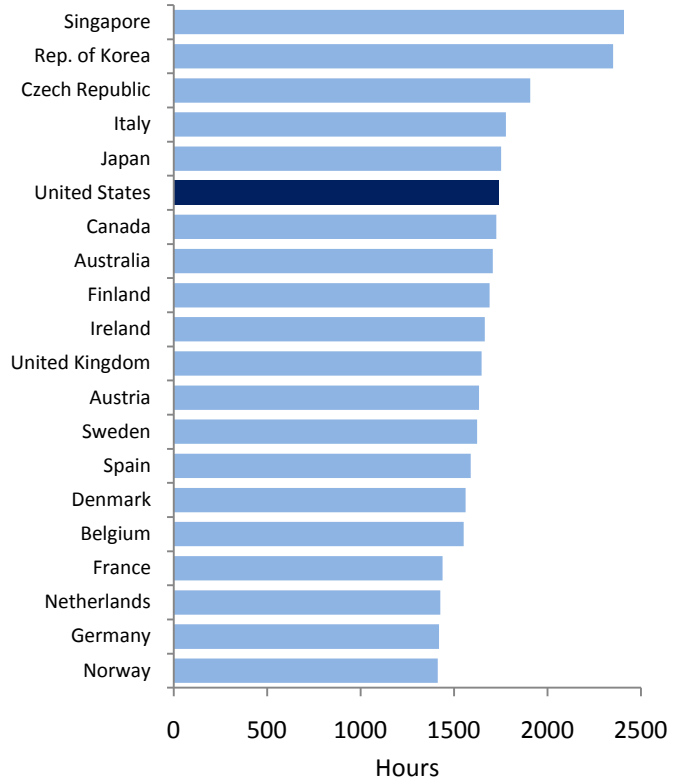
Converted to U.S. dollars using 2010 PPPs

Index: 1995 = 100

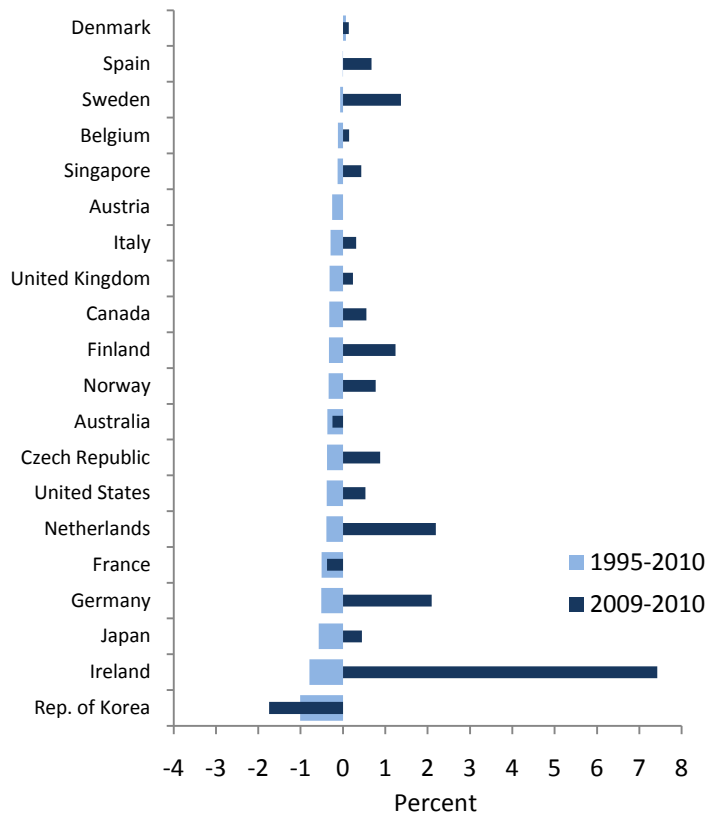


- **Average annual hours worked** is total number of hours worked in an economy divided by the number of persons employed.
- Of the countries covered, average annual hours worked were highest in Singapore and the Republic of Korea at well over 2000 hours. Employed persons in Norway worked the fewest annual average hours.
- In general, European countries had a lower number of average annual hours worked than the non-European countries. Average annual hours were lowest in Norway and Germany. The European country with the highest level of average annual hours worked was the Czech Republic, followed by Italy.
- With the exception of Denmark, average annual hours declined in all countries covered since 1995. In the latest year however, hours increased in all but three countries.

**Average annual hours worked, 2010**  
per employed person



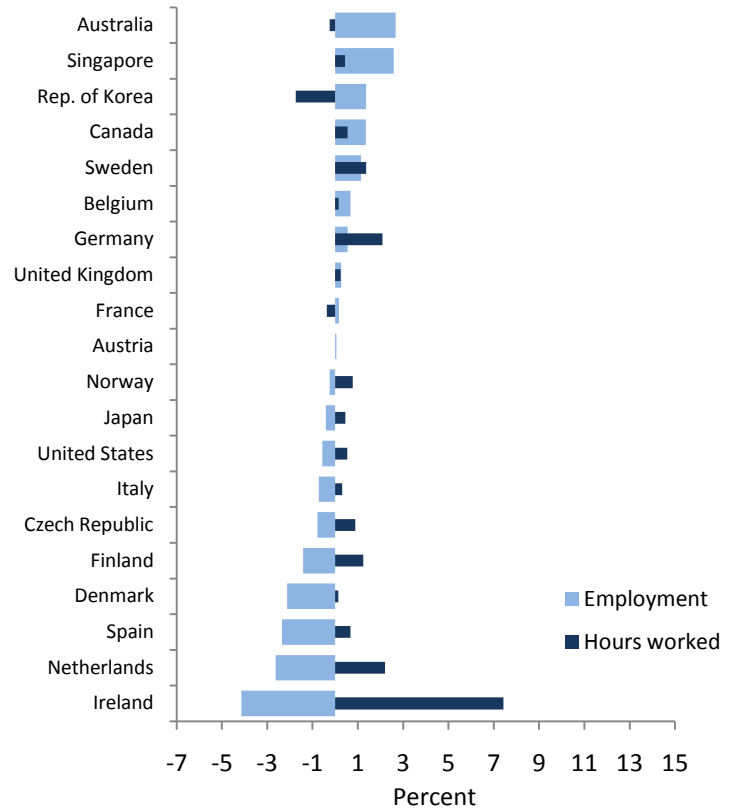
**Average annual hours worked**  
Average annual growth rates



## Employment and average hours worked, 2009 - 2010

Annual growth rates

- **Employment and average hours worked** combine to yield total hours worked, which is typically used as the labor input in productivity measures.
- There was an interesting distribution of employment change in the countries covered in 2010, with half witnessing employment increases and the other half experiencing employment decreases. Each country where employment decreased also experienced increases in average hours worked.
- The composition of the change in total hours worked varied across countries in 2010. Some countries, such as Singapore and Canada, saw total hours increase because both employment and average hours increased. Other countries, such as Ireland, had their gains in total hours carried by large gains in average hours, even though employment dropped.
- The 1995–2010 period saw growth in employment coupled with small declines in average annual hours worked for most of the countries covered. The only exceptions to this occurred in Japan, where both declined, and Denmark where both increased.



## Employment and hours worked, 1995 - 2010

Average annual growth rates





# Real GDP per capita, by country, 1960–2010

**Table 1a. Converted to U.S. dollars using 2010 PPPs (2010 U.S. dollars)**

Country	1960	1979	1990	1995	2000	2005	2009	2010
United States	17,368	28,845	35,612	37,829	44,081	47,296	45,854	46,844
Canada	14,436	25,501	30,040	30,925	36,153	38,955	38,323	39,104
Australia	14,893	22,388	27,150	29,376	34,101	37,760	39,137	39,497
Japan	5,938	19,004	28,848	30,445	31,586	33,457	32,424	33,612
Republic of Korea	1,510	5,423	11,781	16,373	20,225	24,601	27,562	29,184
Singapore	4,331	15,540	28,186	36,727	42,626	50,849	51,787	58,240
Austria	11,339	23,518	29,153	31,192	35,851	37,787	39,222	39,928
Belgium	11,441	22,683	28,526	30,325	34,521	36,514	36,792	37,411
Czech Republic	NA	NA	NA	18,010	19,497	23,513	25,535	26,063
Denmark	14,084	24,934	30,374	33,508	37,791	39,629	38,284	38,778
Finland	NA	19,639	26,737	25,312	31,580	35,480	35,535	36,661
France	11,062	23,109	28,004	29,135	32,596	34,045	33,853	34,168
Germany	13,003	23,778	29,444	31,618	34,698	35,622	36,635	38,021
Ireland	NA	15,151	19,870	24,173	36,453	43,479	40,184	39,664
Italy	10,320	22,503	29,315	31,158	34,176	34,703	32,723	32,997
Netherlands	13,850	24,861	29,491	31,935	37,810	39,395	41,033	41,512
Norway	14,960	29,907	38,474	44,951	52,279	56,667	56,443	55,938
Spain	NA	18,415	23,933	25,439	30,432	33,154	32,774	32,625
Sweden	13,807	23,410	28,668	28,784	34,038	38,179	37,594	39,407
United Kingdom	13,610	20,753	26,204	28,040	32,716	36,182	35,389	35,621

**Table 1b. Average annual rates of change**

Country	1979–2010	1979–90	1990–95	1995–2000	2000–10	2008–09	2009–10
United States	1.6	1.9	1.2	3.1	0.6	-4.3	2.2
Canada	1.4	1.5	0.6	3.2	0.8	-3.9	2.0
Australia	1.8	1.8	1.6	3.0	1.5	-0.8	0.9
Japan	1.9	3.9	1.1	0.7	0.6	-6.2	3.7
Republic of Korea	5.6	7.3	6.8	4.3	3.7	0.0	5.9
Singapore	4.4	5.6	5.4	3.0	3.2	-3.7	12.5
Austria	1.7	2.0	1.4	2.8	1.1	-4.2	1.8
Belgium	1.6	2.1	1.2	2.6	0.8	-3.5	1.7
Czech Republic	NA	NA	NA	1.6	2.9	-4.7	2.1
Denmark	1.4	1.8	2.0	2.4	0.3	-5.7	1.3
Finland	2.0	2.8	-1.1	4.5	1.5	-8.7	3.2
France	1.3	1.8	0.8	2.3	0.5	-3.3	0.9
Germany	NA	2.0	NA	1.9	0.9	-4.4	3.8
Ireland	3.2	2.5	4.0	8.6	0.8	-8.2	-1.3
Italy	1.2	2.4	1.2	1.9	-0.4	-5.8	0.8
Netherlands	1.7	1.6	1.6	3.4	0.9	-4.0	1.2
Norway	2.0	2.3	3.2	3.1	0.7	-2.9	-0.9
Spain	1.9	2.4	1.2	3.6	0.7	-4.4	-0.5
Sweden	1.7	1.9	0.1	3.4	1.5	-6.1	4.8
United Kingdom	1.8	2.1	1.4	3.1	0.9	-5.5	0.7

Note: Data for Germany for years before 1991 pertain to the former West Germany.

NA = Not available.

PPPs = purchasing power parities.

Percent changes were calculated using the compound rate method.

# Real GDP per employed person, by country, 1960–2010

**Table 2a. Converted to U.S. dollars using 2010 PPPs (2010 U.S. dollars)**

Country	1960	1979	1990	1995	2000	2005	2009	2010
United States	45,970	64,344	73,655	79,708	90,001	97,720	99,624	103,229
Canada	41,576	57,628	63,395	68,006	75,075	77,731	76,545	77,948
Australia	36,820	52,581	58,449	64,017	72,254	76,639	78,061	78,047
Japan	11,787	37,808	55,437	57,146	61,405	66,882	65,364	68,233
Republic of Korea	NA	14,965	27,926	36,167	44,940	51,814	57,158	59,858
Singapore	NA	32,317	53,775	73,187	81,109	95,841	86,932	97,006
Austria	23,230	51,098	62,590	68,503	75,816	79,300	80,393	82,064
Belgium	29,959	59,105	73,949	79,494	86,123	89,857	89,505	90,839
Czech Republic	NA	NA	NA	36,140	40,539	48,208	51,262	52,863
Denmark	30,250	50,271	59,846	68,655	74,378	78,745	74,858	77,821
Finland	NA	40,897	53,749	62,984	71,276	77,905	77,095	81,050
France	25,810	56,234	69,062	73,692	77,971	81,968	81,974	83,050
Germany	27,625	54,100	61,246	68,667	72,852	75,642	74,482	76,769
Ireland	NA	43,258	59,349	67,878	81,788	92,176	93,064	96,069
Italy	24,758	60,152	73,542	81,093	84,869	83,368	79,299	80,917
Netherlands	37,637	70,815	69,351	71,688	76,492	79,251	78,904	82,403
Norway	35,027	64,009	79,260	92,441	101,221	111,404	104,581	105,202
Spain	NA	49,768	61,907	67,840	71,320	71,531	74,976	76,670
Sweden	28,274	45,869	53,350	61,535	70,219	79,271	78,141	81,678
United Kingdom	29,861	46,324	55,816	63,019	70,096	75,753	75,509	76,334

**Table 2b. Average annual rates of change**

Country	1979–2010	1979–90	1990–95	1995–2000	2000–10	2008–09	2009–10
United States	1.5	1.2	1.6	2.5	1.4	0.2	3.6
Canada	1.0	0.9	1.4	2.0	0.4	-1.2	1.8
Australia	1.3	1.0	1.8	2.5	0.8	0.5	0.0
Japan	1.9	3.5	0.6	1.4	1.1	-4.9	4.4
Republic of Korea	4.6	5.8	5.3	4.4	2.9	0.6	4.7
Singapore	3.6	4.7	6.4	2.1	1.8	-5.1	11.6
Austria	1.5	1.9	1.8	2.0	0.8	-3.0	2.1
Belgium	1.4	2.1	1.5	1.6	0.5	-2.4	1.5
Czech Republic	NA	NA	NA	2.3	2.7	-3.0	3.1
Denmark	1.4	1.6	2.8	1.6	0.5	-2.4	4.0
Finland	2.2	2.5	3.2	2.5	1.3	-4.9	5.1
France	1.3	1.9	1.3	1.1	0.6	-1.6	1.3
Germany	NA	1.1	NA	1.2	0.5	-4.7	3.1
Ireland	2.6	2.9	2.7	3.8	1.6	0.6	3.2
Italy	1.0	1.8	2.0	0.9	-0.5	-3.6	2.0
Netherlands	0.5	-0.2	0.7	1.3	0.7	-3.6	4.4
Norway	1.6	2.0	3.1	1.8	0.4	-1.3	0.6
Spain	1.4	2.0	1.8	1.0	0.7	3.1	2.3
Sweden	1.9	1.4	2.9	2.7	1.5	-3.4	4.5
United Kingdom	1.6	1.7	2.5	2.2	0.9	-3.3	1.1

Note: Data for Germany for years before 1991 pertain to the former West Germany.

NA = Not available.

PPPs = purchasing power parities.

Percent changes were calculated using the compound rate method.

# Real GDP per hour worked, by country, 1960–2010

**Table 3a. Converted to U.S. dollars using 2010 PPPs (2010 U.S. dollars)**

Country	1960	1979	1990	1995	2000	2005	2009	2010
United States	NA	35.19	40.71	43.18	48.47	54.77	57.51	59.28
Canada	NA	31.45	35.13	37.52	41.64	43.91	44.58	45.14
Australia	NA	28.28	32.61	35.46	40.16	43.69	45.61	45.72
Japan	NA	17.74	26.89	29.91	33.06	36.88	37.47	38.94
Republic of Korea	NA	NA	9.95	13.21	17.03	20.66	23.88	25.45
Singapore	NA	13.53	22.18	29.80	33.10	39.53	36.24	40.27
Austria	NA	NA	NA	40.32	44.07	46.68	49.19	50.21
Belgium	NA	34.34	44.60	50.31	55.75	57.41	57.74	58.52
Czech Republic	NA	NA	NA	17.92	19.72	24.53	27.11	27.72
Denmark	NA	30.52	38.72	44.41	46.91	49.88	48.01	49.84
Finland	NA	21.88	30.38	35.46	40.71	45.40	46.19	47.96
France	NA	32.07	43.12	47.48	52.37	56.04	56.77	57.73
Germany	NA	30.56	38.82	44.78	49.46	52.75	53.58	54.09
Ireland	NA	NA	29.85	36.20	47.58	55.73	60.08	57.73
Italy	NA	NA	39.40	43.63	45.60	45.84	44.74	45.51
Netherlands	NA	38.18	45.39	47.40	51.70	55.92	56.54	57.78
Norway	NA	40.51	52.75	62.14	69.56	78.44	74.54	74.41
Spain	NA	28.18	38.49	42.61	43.14	44.78	47.48	48.22
Sweden	NA	NA	33.87	37.51	42.76	49.39	48.79	50.31
United Kingdom	NA	25.45	31.88	36.48	41.29	45.27	45.95	46.34

**Table 3b. Average annual rates of change**

Country	1979–2010	1979–90	1990–95	1995–2000	2000–10	2008–09	2009–10
United States	1.7	1.3	1.2	2.3	2.0	2.1	3.1
Canada	1.2	1.0	1.3	2.1	0.8	0.6	1.3
Australia	1.6	1.3	1.7	2.5	1.3	2.8	0.2
Japan	2.6	3.9	2.1	2.0	1.6	-2.1	3.9
Republic of Korea	NA	NA	5.8	5.2	4.1	0.8	6.6
Singapore	3.6	4.6	6.1	2.1	2.0	-4.5	11.1
Austria	NA	NA	NA	1.8	1.3	-0.7	2.1
Belgium	1.7	2.4	2.4	2.1	0.5	-1.3	1.3
Czech Republic	NA	NA	NA	1.9	3.5	0.6	2.2
Denmark	1.6	2.2	2.8	1.1	0.6	-1.7	3.8
Finland	2.6	3.0	3.1	2.8	1.7	-3.8	3.8
France	1.9	2.7	1.9	2.0	1.0	-0.2	1.7
Germany	NA	2.2	NA	2.0	0.9	-2.2	1.0
Ireland	NA	NA	3.9	5.6	2.0	4.0	-3.9
Italy	NA	NA	2.1	0.9	0.0	-2.0	1.7
Netherlands	1.3	1.6	0.9	1.8	1.1	-2.3	2.2
Norway	2.0	2.4	3.3	2.3	0.7	0.1	-0.2
Spain	1.7	2.9	2.1	0.2	1.1	2.7	1.6
Sweden	NA	NA	2.1	2.7	1.6	-2.5	3.1
United Kingdom	2.0	2.1	2.7	2.5	1.2	-2.0	0.9

Note: Data for Germany for years before 1991 pertain to the former West Germany.

NA = Not available.

PPPs = purchasing power parities.

Percent changes were calculated using the compound rate method.

# Real GDP, by country, 1960–2010

**Table 4a. Converted to U.S. dollars using 2010 PPPs (In millions of 2010 U.S. dollars)**

Country	1960	1979	1990	1995	2000	2005	2009	2010
United States	3,139,380	6,493,084	8,909,357	10,084,641	12,449,193	14,010,392	14,099,296	14,526,500
Canada	258,139	616,240	830,800	904,785	1,107,825	1,256,096	1,292,249	1,333,793
Australia	153,023	324,983	463,313	530,867	653,145	770,114	859,134	881,924
Japan	558,773	2,202,792	3,563,003	3,820,621	4,007,014	4,274,953	4,135,877	4,299,582
Republic of Korea	37,779	203,548	505,036	738,317	950,747	1,184,267	1,343,564	1,426,353
Singapore	7,131	37,039	85,886	129,445	171,695	216,913	258,291	295,669
Austria	79,910	177,548	223,831	247,925	287,220	310,811	328,011	334,991
Belgium	104,722	223,390	284,335	307,402	353,878	382,613	397,222	405,870
Czech Republic	NA	NA	NA	186,058	200,282	240,637	267,901	274,113
Denmark	64,278	127,603	156,131	175,257	201,749	214,732	211,390	215,081
Finland	NA	93,572	133,323	129,287	163,465	186,130	189,715	196,628
France	515,712	1,267,000	1,629,043	1,731,174	1,979,366	2,143,406	2,183,384	2,215,697
Germany	720,769	1,458,975	1,862,430	2,581,959	2,851,733	2,937,570	2,999,453	3,108,389
Ireland	NA	51,156	69,759	87,203	138,663	180,812	179,306	177,440
Italy	518,053	1,267,310	1,662,750	1,771,169	1,946,051	2,033,832	1,969,709	1,995,233
Netherlands	159,037	348,906	440,796	493,716	602,008	642,801	678,269	689,729
Norway	53,595	121,795	163,185	195,950	234,784	261,989	272,548	273,494
Spain	NA	686,660	929,820	1,001,999	1,225,294	1,438,844	1,505,288	1,503,121
Sweden	103,345	194,160	245,371	254,073	301,992	344,740	349,566	369,561
United Kingdom	712,794	1,167,144	1,499,824	1,627,017	1,926,510	2,179,409	2,186,752	2,216,359

**Table 4b. Average annual rates of change**

Country	1979–2010	1979–90	1990–95	1995–2000	2000–10	2008–09	2009–10
United States	2.6	2.9	2.5	4.3	1.6	-3.5	3.0
Canada	2.5	2.8	1.7	4.1	1.9	-2.8	3.2
Australia	3.3	3.3	2.8	4.2	3.0	1.3	2.7
Japan	2.2	4.5	1.4	1.0	0.7	-6.3	4.0
Republic of Korea	6.5	8.6	7.9	5.2	4.1	0.3	6.2
Singapore	6.9	7.9	8.6	5.8	5.6	-0.8	14.5
Austria	2.1	2.1	2.1	3.0	1.6	-3.9	2.1
Belgium	1.9	2.2	1.6	2.9	1.4	-2.8	2.2
Czech Republic	NA	NA	NA	1.5	3.2	-4.1	2.3
Denmark	1.7	1.9	2.3	2.9	0.6	-5.2	1.7
Finland	2.4	3.3	-0.6	4.8	1.9	-8.2	3.6
France	1.8	2.3	1.2	2.7	1.1	-2.7	1.5
Germany	NA	2.2	NA	2.0	0.9	-4.7	3.6
Ireland	4.1	2.9	4.6	9.7	2.5	-7.6	-1.0
Italy	1.5	2.5	1.3	1.9	0.2	-5.2	1.3
Netherlands	2.2	2.1	2.3	4.0	1.4	-3.5	1.7
Norway	2.6	2.7	3.7	3.7	1.5	-1.7	0.3
Spain	2.6	2.8	1.5	4.1	2.1	-3.7	-0.1
Sweden	2.1	2.2	0.7	3.5	2.0	-5.3	5.7
United Kingdom	2.1	2.3	1.6	3.4	1.4	-4.9	1.4

Note: Data for Germany for years before 1991 pertain to the former West Germany.

NA = Not available.

PPPs = purchasing power parities.

Percent changes were calculated using the compound rate method.

# Population, by country, 1960–2010

**Table 5a. Millions of persons**

Country	1960	1979	1990	1995	2000	2005	2009	2010
United States	180.76	225.11	250.18	266.59	282.42	296.23	307.48	310.11
Canada	17.88	24.17	27.66	29.26	30.64	32.25	33.72	34.11
Australia	10.28	14.52	17.07	18.07	19.15	20.39	21.95	22.33
Japan	94.10	115.91	123.51	125.49	126.86	127.77	127.56	127.92
Republic of Korea	25.01	37.53	42.87	45.09	47.01	48.14	48.75	48.87
Singapore	1.65	2.38	3.05	3.52	4.03	4.27	4.99	5.08
Austria	7.05	7.55	7.68	7.95	8.01	8.23	8.36	8.39
Belgium	9.15	9.85	9.97	10.14	10.25	10.48	10.80	10.85
Czech Republic	NA	NA	NA	10.33	10.27	10.23	10.49	10.52
Denmark	4.56	5.12	5.14	5.23	5.34	5.42	5.52	5.55
Finland	4.43	4.76	4.99	5.11	5.18	5.25	5.34	5.36
France	46.62	54.83	58.17	59.42	60.72	62.96	64.50	64.85
Germany	55.43	61.36	63.25	81.66	82.19	82.46	81.88	81.76
Ireland	2.83	3.38	3.51	3.61	3.80	4.16	4.46	4.47
Italy	50.20	56.32	56.72	56.84	56.94	58.61	60.19	60.47
Netherlands	11.48	14.03	14.95	15.46	15.92	16.32	16.53	16.62
Norway	3.58	4.07	4.24	4.36	4.49	4.62	4.83	4.89
Spain	30.26	37.29	38.85	39.39	40.26	43.40	45.93	46.07
Sweden	7.49	8.29	8.56	8.83	8.87	9.03	9.30	9.38
United Kingdom	52.37	56.24	57.24	58.03	58.89	60.24	61.79	62.22

**Table 5b. Average annual rates of change**

Country	1979–2010	1979–90	1990–95	1995–2000	2000–10	2008–09	2009–10
United States	1.0	1.0	1.3	1.2	0.9	0.9	0.9
Canada	1.1	1.2	1.1	0.9	1.1	1.2	1.2
Australia	1.4	1.5	1.2	1.2	1.5	2.1	1.7
Japan	0.3	0.6	0.3	0.2	0.1	-0.1	0.3
Republic of Korea	0.9	1.2	1.0	0.8	0.4	0.3	0.3
Singapore	2.5	2.3	3.0	2.7	2.3	3.1	1.8
Austria	0.3	0.2	0.7	0.2	0.5	0.3	0.3
Belgium	0.3	0.1	0.3	0.2	0.6	0.8	0.5
Czech Republic	NA	NA	NA	-0.1	0.2	0.6	0.2
Denmark	0.3	0.0	0.3	0.4	0.4	0.5	0.4
Finland	0.4	0.4	0.5	0.3	0.4	0.5	0.5
France	0.5	0.5	0.4	0.4	0.7	0.6	0.5
Germany	NA	0.3	NA	0.1	-0.1	-0.3	-0.1
Ireland	0.9	0.4	0.5	1.1	1.6	0.7	0.3
Italy	0.2	0.1	0.0	0.0	0.6	0.6	0.5
Netherlands	0.5	0.6	0.7	0.6	0.4	0.5	0.5
Norway	0.6	0.4	0.5	0.6	0.9	1.3	1.3
Spain	0.7	0.4	0.3	0.4	1.4	0.7	0.3
Sweden	0.4	0.3	0.6	0.1	0.6	0.9	0.9
United Kingdom	0.3	0.2	0.3	0.3	0.6	0.6	0.7

Note: Data for Germany for years before 1991 pertain to the former West Germany.

NA = Not available.

Percent changes were calculated using the compound rate method.

# Employment, by country, 1960–2010

**Table 6a. Millions of persons**

Country	1960	1979	1990	1995	2000	2005	2009	2010
United States	68.29	100.91	120.96	126.52	138.32	143.37	141.52	140.72
Canada	6.21	10.69	13.11	13.30	14.76	16.16	16.88	17.11
Australia	4.16	6.18	7.93	8.29	9.04	10.05	11.01	11.30
Japan	47.41	58.26	64.27	66.86	65.26	63.92	63.28	63.01
Republic of Korea	NA	13.60	18.09	20.41	21.16	22.86	23.51	23.83
Singapore	NA	1.15	1.60	1.77	2.12	2.26	2.97	3.05
Austria	3.44	3.47	3.58	3.62	3.79	3.92	4.08	4.08
Belgium	3.50	3.78	3.85	3.87	4.11	4.26	4.44	4.47
Czech Republic	NA	NA	NA	5.15	4.94	4.99	5.23	5.19
Denmark	2.12	2.54	2.61	2.55	2.71	2.73	2.82	2.76
Finland	NA	2.29	2.48	2.05	2.29	2.39	2.46	2.43
France	19.98	22.53	23.59	23.49	25.39	26.15	26.63	26.68
Germany	26.09	26.97	30.41	37.60	39.14	38.84	40.27	40.49
Ireland	1.07	1.18	1.18	1.28	1.70	1.96	1.93	1.85
Italy	20.92	21.07	22.61	21.84	22.93	24.40	24.84	24.66
Netherlands	4.23	4.93	6.36	6.89	7.87	8.11	8.60	8.37
Norway	1.53	1.90	2.06	2.12	2.32	2.35	2.61	2.60
Spain	NA	13.80	15.02	14.77	17.18	20.12	20.08	19.61
Sweden	3.66	4.23	4.60	4.13	4.30	4.35	4.47	4.52
United Kingdom	23.87	25.20	26.87	25.82	27.48	28.77	28.96	29.04

**Table 6b. Average annual rates of change**

Country	1979–2010	1979–90	1990–95	1995–2000	2000–10	2008–09	2009–10
United States	1.1	1.7	0.9	1.8	0.2	-3.7	-0.6
Canada	1.5	1.9	0.3	2.1	1.5	-1.6	1.4
Australia	2.0	2.3	0.9	1.7	2.3	0.7	2.7
Japan	0.3	0.9	0.8	-0.5	-0.3	-1.5	-0.4
Republic of Korea	1.8	2.6	2.5	0.7	1.2	-0.3	1.4
Singapore	3.2	3.1	2.1	3.7	3.7	4.6	2.6
Austria	0.5	0.3	0.2	0.9	0.7	-0.9	0.0
Belgium	0.5	0.2	0.1	1.2	0.8	-0.4	0.7
Czech Republic	NA	NA	NA	-0.8	0.5	-1.2	-0.8
Denmark	0.3	0.2	-0.4	1.2	0.2	-2.9	-2.1
Finland	0.2	0.7	-3.7	2.2	0.6	-3.5	-1.4
France	0.5	0.4	-0.1	1.6	0.5	-1.2	0.2
Germany	NA	1.1	NA	0.8	0.3	0.0	0.5
Ireland	1.4	-0.1	1.8	5.7	0.9	-8.2	-4.1
Italy	0.5	0.6	-0.7	1.0	0.7	-1.7	-0.7
Netherlands	1.7	2.3	1.6	2.7	0.6	0.0	-2.6
Norway	1.0	0.7	0.6	1.8	1.1	-0.5	-0.2
Spain	1.1	0.8	-0.3	3.1	1.3	-6.6	-2.4
Sweden	0.2	0.8	-2.1	0.8	0.5	-2.0	1.1
United Kingdom	0.5	0.6	-0.8	1.3	0.6	-1.6	0.3

Note: Data for Germany for years before 1991 pertain to the former West Germany.

NA = Not available.

Percent changes were calculated using the compound rate method.

## Average annual hours worked per employed person, by country, 1960–2010

**Table 7a. Hours**

Country	1960	1979	1990	1995	2000	2005	2009	2010
United States	NA	1,829	1,809	1,846	1,857	1,784	1,765	1,734
Canada	NA	1,824	1,797	1,804	1,795	1,762	1,745	1,714
Australia	NA	1,859	1,792	1,805	1,799	1,754	1,750	1,712
Japan	NA	2,132	2,062	1,911	1,857	1,814	1,795	1,765
Republic of Korea	NA	NA	2,798	2,730	2,631	2,501	2,392	2,387
Singapore	NA	2,388	2,425	2,456	2,451	2,425	2,414	2,399
Austria	NA	NA	NA	1,699	1,721	1,699	1,681	1,673
Belgium	NA	1,720	1,656	1,580	1,545	1,565	1,568	1,540
Czech Republic	NA	NA	NA	2,017	2,056	1,965	1,962	1,891
Denmark	NA	1,636	1,539	1,540	1,581	1,579	1,570	1,566
Finland	NA	1,869	1,769	1,776	1,751	1,716	1,704	1,672
France	NA	1,868	1,705	1,651	1,591	1,557	1,560	1,559
Germany	NA	1,770	1,578	1,534	1,473	1,434	1,430	1,390
Ireland	NA	NA	1,988	1,875	1,719	1,654	1,601	1,555
Italy	NA	NA	1,867	1,859	1,861	1,819	1,809	1,773
Netherlands	NA	NA	NA	1,512	1,480	1,417	1,401	1,384
Norway	NA	1,580	1,503	1,488	1,455	1,420	1,423	1,408
Spain	NA	1,766	1,608	1,592	1,653	1,597	1,572	1,579
Sweden	NA	NA	1,575	1,640	1,642	1,605	1,625	1,611
United Kingdom	NA	1,820	1,751	1,728	1,698	1,674	1,665	1,643

**Table 7b. Average annual rates of change**

Country	1979–2010	1979–90	1990–95	1995–2000	2000–10	2008–09	2009–10
United States	-0.2	-0.1	0.4	0.1	-0.6	-1.9	0.5
Canada	-0.2	-0.1	0.1	-0.1	-0.4	-1.8	0.5
Australia	-0.3	-0.3	0.1	-0.1	-0.5	-2.2	-0.2
Japan	-0.6	-0.3	-1.5	-0.6	-0.6	-2.8	0.4
Republic of Korea	NA	NA	-0.5	-0.7	-1.1	-0.2	-1.7
Singapore	0.0	0.1	0.3	0.0	-0.2	-0.6	0.4
Austria	NA	NA	NA	0.3	-0.5	-2.3	0.0
Belgium	-0.3	-0.3	-1.0	-0.4	0.0	-1.1	0.1
Czech Republic	NA	NA	NA	0.4	-0.7	-3.6	0.9
Denmark	-0.2	-0.6	0.0	0.5	-0.2	-0.7	0.1
Finland	-0.3	-0.5	0.1	-0.3	-0.4	-1.1	1.2
France	-0.6	-0.8	-0.6	-0.8	-0.3	-1.4	-0.4
Germany	NA	-1.0	NA	-0.8	-0.4	-2.5	2.1
Ireland	NA	NA	-1.2	-1.7	-0.3	-3.2	7.4
Italy	NA	NA	-0.1	0.0	-0.5	-1.7	0.3
Netherlands	-0.8	-1.7	-0.2	-0.4	-0.4	-1.3	2.2
Norway	-0.4	-0.5	-0.2	-0.4	-0.3	-1.4	0.8
Spain	-0.3	-0.8	-0.2	0.8	-0.4	0.3	0.7
Sweden	NA	NA	0.8	0.0	-0.1	-0.9	1.4
United Kingdom	-0.3	-0.4	-0.3	-0.3	-0.3	-1.3	0.2

Note: Data for Germany for years before 1991 pertain to the former West Germany.

NA = Not available.

Percent changes were calculated using the compound rate method.

## Employment as percentage of population, by country, 1960–2010

**Table 8.**

Country	1960	1979	1990	1995	2000	2005	2009	2010
United States	37.78	44.83	48.35	47.46	48.98	48.40	46.03	45.38
Canada	34.72	44.25	47.39	45.47	48.16	50.11	50.07	50.17
Australia	40.45	42.58	46.45	45.89	47.20	49.27	50.14	50.61
Japan	50.38	50.26	52.04	53.28	51.44	50.02	49.61	49.26
Republic of Korea	NA	36.24	42.19	45.27	45.00	47.48	48.22	48.76
Singapore	NA	48.09	52.42	50.18	52.55	53.06	59.57	60.04
Austria	48.81	46.03	46.58	45.53	47.29	47.65	48.79	48.65
Belgium	38.19	38.38	38.58	38.15	40.08	40.64	41.11	41.18
Czech Republic	NA	NA	NA	49.83	48.09	48.77	49.81	49.30
Denmark	46.56	49.60	50.75	48.81	50.81	50.33	51.14	49.83
Finland	NA	48.02	49.75	40.19	44.31	45.54	46.09	45.23
France	42.86	41.09	40.55	39.54	41.81	41.53	41.30	41.14
Germany	47.07	43.95	48.07	46.05	47.63	47.09	49.19	49.53
Ireland	37.81	35.03	33.48	35.61	44.57	47.17	43.18	41.29
Italy	41.68	37.41	39.86	38.42	40.27	41.63	41.27	40.78
Netherlands	36.80	35.11	42.52	44.55	49.43	49.71	52.00	50.38
Norway	42.71	46.72	48.54	48.63	51.65	50.87	53.97	53.17
Spain	NA	37.00	38.66	37.50	42.67	46.35	43.71	42.55
Sweden	48.83	51.04	53.74	46.78	48.47	48.16	48.11	48.25
United Kingdom	45.58	44.80	46.95	44.49	46.67	47.76	46.87	46.66

Note: Data for Germany for years before 1991 pertain to the former West Germany.

NA = Not available.



## Purchasing power parities (PPPs), exchange rates, and relative prices, by country, 2010

**Table 9. (U.S.=1.00)**

Country	PPPs for GDP	Exchange rates	Relative prices <sup>1</sup>
United States	1.00	1.00	1.00
Canada	1.22	1.03	1.18
Australia	1.52	1.09	1.40
Japan	111.45	87.78	1.27
Republic of Korea	822.24	1155.74	0.71
Singapore	1.03	1.36	0.75
Austria	0.85	0.75	1.13
Belgium	0.87	0.75	1.15
Czech Republic	13.39	19.11	0.70
Denmark	8.10	5.63	1.44
Finland	0.92	0.75	1.22
France	0.87	0.75	1.16
Germany	0.80	0.75	1.07
Ireland	0.88	0.75	1.17
Italy	0.78	0.75	1.03
Netherlands	0.85	0.75	1.13
Norway	9.13	6.05	1.51
Spain	0.71	0.75	0.94
Sweden	8.95	7.21	1.24
United Kingdom	0.66	0.65	1.01

<sup>1</sup> Relative prices are the ratio of PPPs to exchange rates. They are a measure of how expensive goods and services are in a country relative to the United States. A number greater than 1 indicates relatively higher prices while a number less than 1 indicates relatively lower prices. See technical notes.

## Technical notes

This report updates the international comparisons report on GDP per capita and related measures produced annually by the Bureau of Labor Statistics (BLS). The estimates shown in this report are based on data available as of August 2010. Data are available for all countries through 2010.

These technical notes provide definitions, sources, and methods for the basic time series and indicators included in this report.

### ***Gross domestic product***

Gross domestic product (GDP) is the market value of goods and services produced by labor and capital in a country, regardless of nationality (see table 4). As such, it is the most comprehensive measure of a country's economic output that is generally estimated by statistical agencies.

The GDP measures in this report were obtained from the national accounts programs of their respective national statistical agencies. For all countries in this comparison, data for more recent years have been produced using chain linked real output measures as recommended in the 1993 United Nations System of National Accounts (SNA93). For several countries, however, older data were produced on a 1968 United Nations System of National Accounts (SNA68). Data produced on an SNA68 basis used fixed base-year deflators that were typically updated only every 5 years. In order to construct one continuous GDP series, BLS links several time series, each of which has its own set of base-year price weights.

The U.S. GDP series are produced by the Bureau of Economic Analysis (BEA) and are based on the system of national income and product accounts (NIPAs), which are also prepared in accordance with SNA93.

### ***GDP per capita***

GDP per capita is calculated as GDP divided by population and is a rough measure of a population's economic well being. (See table 1.) However, this measure may have the following limitations: The total production of a country consists of many things that are not included in its GDP, and some items included may not contribute to a country's well-being. In addition, some countries experience significant in- and out-flows of income because of foreign investment, which may affect a country's prosperity.

### ***GDP per hour worked and GDP per employed person***

GDP per hour worked is one measure of labor productivity. (See table 3.) Although it relates output to labor hours involved in its production by all persons in a country, it does not measure the specific contribution of labor or any other factor of production. Rather, it reflects the joint effects of many influences, including changes in technology; capital investment; utilization of capacity, energy, and materials; the use of purchased services inputs, including contract employment services; the organization of production; and managerial skill; in addition to the characteristics and effort of the workforce.

In addition to GDP per hour worked, this report also provides GDP per employed person. (See table 2.) GDP per employed person is a less precise measure of labor productivity in that it does not take into account the often substantial differences in working hours among countries; however, data on GDP per employed person are available for longer time periods and are thus useful as a rough indicator of labor productivity for years in which GDP per hour data are not available.

### ***Comparative levels of time series with real output using purchasing power parities (PPPs)***

In order to make international comparisons of levels of GDP, GDP per capita, GDP per hour worked, and GDP per employed person, it is necessary to express output in a common currency unit. In this report, BLS converted the output measures from national currency units to U.S. dollars through the use of purchasing power parities (PPPs). PPPs are currency conversion rates that allow output in different currency units to be expressed in a common unit of value - in this case, U.S. dollars.

There are two primary reasons for using PPPs rather than market exchange rates to convert GDP into a common currency. First, PPPs reflect the relative purchasing powers of different currencies. By contrast, market exchange rates represent at best relative prices of goods and services that are traded internationally, not the relative value of total domestic output, which also consists of goods, and particularly services, that are not traded internationally. Second, PPPs are more stable than market exchange rates, which can vary frequently and abruptly. Often these changes in market exchange rates are due to currency speculation or interest rates changes. Thus if GDP is converted into a common currency using exchange rates, the output of a country's economy could appear to vary for reasons that are unrelated to the country's economic activity.

The levels of GDP in this report were derived as follows. First, real GDP series from each country was expressed in constant prices of the national currency in 2010. Next, each country's constant GDP series was divided by the country's PPP for 2010 as calculated by the OECD-Eurostat PPP Program<sup>1</sup> or the International Monetary Fund<sup>2</sup> (IMF), thereby converting the series into constant 2010 U.S. dollars. Finally, the time series of GDP per capita, per employed person, and per hour were estimated by dividing each country's GDP in 2010 dollars by its population, employment, and hours, respectively.

PPPs are an effective tool for international comparisons of output levels, but they should be used and interpreted with caution, as the accuracy of PPPs may be limited by several factors; for example, goods

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<sup>1</sup> OECD and Eurostat, Purchasing Power Parities and Real Expenditures. 2005 Benchmark Year, 2007 Edition.

<sup>2</sup> International Monetary Fund, World Economic Outlook Database, October 2010

and services included in the calculation of PPPs may not be representative of the entire economy or comparable across countries, countries may use different price aggregation methods, and the statistical capabilities among countries may differ. Although comparative estimates like GDP per capita are useful for grouping countries, changes in country rankings can occur as a result of relatively minor adjustments to PPP estimates. Thus, small differences between countries are not, in general, economically significant, and a strict ranking order interpretation should be avoided.

### ***Currency exchange rates and relative prices***

The currency exchange rate is the rate at which one currency may be converted into the currency of another country for commercial purposes, such as international trade. The market exchange rates in this report are based on reports by the U.S. Federal Reserve Board. (See table 9.)

The relationship between PPPs and market exchange rates can be used to estimate comparative prices in different countries. This report calculates relative prices in 2010 by dividing a country's PPP by its market exchange rate. (See table 9.) The resulting values indicate the domestic price, expressed in U.S. dollars, of a basket of goods that would cost exactly one dollar in the United States. Consequently, values less than 1.00 indicate that prices in that country are relatively low compared with the United States. Values greater than 1.00 indicate that prices in a particular country are relatively high compared with the United States.

### ***Population and employment***

The population data in this report represent the total average resident population, which refers to the civilian population and the armed forces residing within a country. (See table 5.) The data are derived from national statistical agencies and international organizations.

The employment data in this report represent the number of persons employed, which consists of the sum of civilian employment and armed forces. (See table 6.) Most of the data are obtained from the countries' national accounts, where the data series have been developed from various surveys and other sources, including labor force (household) and establishment surveys. In some cases, the data have been supplemented with data obtained from other series published by national statistical or international organizations.

The employment-population ratio measures the participation of the population in the production process. (See table 8.) In this report, the population and employment figures include the Armed Forces. This inclusion is a conceptual difference to the population and employment figures published in the BLS report *International comparisons of annual labor force statistics, 10 countries*<sup>3</sup>, which exclude the Armed Forces.

### ***Hours worked***

The hours worked data in this report represent hours actually worked, including regular work time, overtime, preparing the work place, waiting for supplies, and short rests. Hours worked exclude vacation, sick leave, lunch breaks, and commuting to and from work.

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<sup>3</sup> This report is available on the Internet at <http://www.bls.gov/fls/flscomparelf.htm>.

Hours worked may not be fully comparable across countries because national statistical offices may use different concepts, data sources, and estimation techniques to calculate total hours worked; for example, the employment series may refer to the number of persons or the number of jobs, hours worked may be estimated from hours paid, and different establishment and household surveys may be used to cover all employees, self-employed, and Armed Forces. These differences may affect the comparability of hours worked data among different countries<sup>4</sup>.

For most countries, the hours data used in this report are obtained from the countries' national accounts, where the data series have been developed from various surveys and other sources. For some countries, the data are based on other series published by national statistical or international organizations.

### ***Data limitations***

BLS prepares the data in this report with the utmost attention to comparability across countries. However, there are several issues that limit the comparability, including the following:

- *Different national methodologies*: The measures in this report were calculated from data that were obtained from national statistical agencies and international organizations. While these data are generally comparable, some differences remain in the statistical methodologies used by these organizations.
- *Missing data for recent years*: In some cases, when data for the most recent year(s) are not available, BLS may estimate the missing data using alternative data series.
- *Different historical methodologies*: National statistical agencies change their methodology periodically. As a result, continuous time series from 1960 forward are generally not available. In order to construct longer time series, BLS often links several shorter series that may have used different methodologies.

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<sup>4</sup> Some of these differences are addressed by Susan Fleck in "International comparisons of hours worked: an assessment of the statistics," Monthly Labor Review, May 2009, pp. 3-31.