

The World Bank International Comparison Program for purchasing power: Overall ranking of countries, 2011

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On April 30, 2014, the World Bank's International Comparison Program (ICP) released an update for 2011, comparing the purchasing power in levels for 199 countries. In this ranking based on purchasing power parities (PPPs), Canada placed 23rd for gross domestic product (GDP) per capita and 11th for actual individual consumption per capita. This second measurement is more representative of material well-being at the household level.

In terms of relative size, Canada ranks 15th among world economies

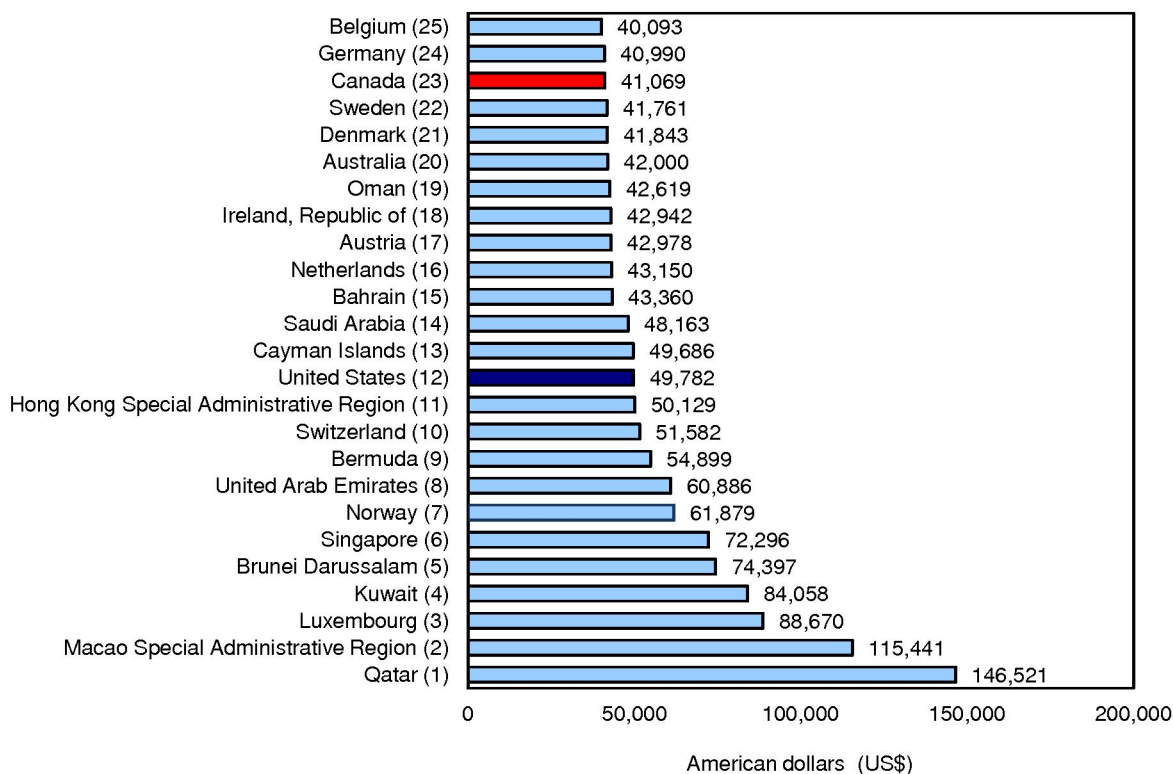
To measure the relative sizes of economies in levels and, thereby, create a worldwide ranking, PPPs were used rather than exchange rates, because the difference between the two measures is especially significant for low-income countries. By considering each country's GDP as a share of the total GDP of all countries included in the 2011 ICP, the top 10 economies are the United States (17.1%), China (14.9%), India (6.4%), Japan (4.8%), Germany (3.7%), the Russian Federation (3.5%), Brazil (3.1%), France (2.6%), the United Kingdom (2.4%) and Indonesia (2.3%) respectively. Canadian GDP, which ranked 15th, represents 1.6% of the total.

In terms of gross domestic product per capita, Canada ranks 23rd in the world

Ranking countries according to their GDP per capita (converted using PPPs) paints a more accurate picture of the relative size of each economy than does a ranking of countries based on exchange rates. PPPs make it possible to obtain conversion rates between currencies that eliminate price differences, leaving volumes only. That is why the PPP approach is preferred for determining the overall ranking of countries. When countries are ranked by GDP per capita (on the basis of PPPs), Canada ranks 23rd worldwide, while Qatar ranks 1st, followed by the Macao Special Administrative Region and Luxembourg. The United States ranks 12th. Between 15th place (Bahrain) and 25th place (Belgium), the average difference is only slightly over US\$3,000.



Chart 1
Gross domestic product per capita in US\$, based on power purchasing parities, by country ranking



As short-term exchange rates can fluctuate significantly, their use in converting GDP data can yield results that are much more volatile. This approach is, therefore, much too unstable for international comparisons. Using exchange rates, Canada would rank 11th worldwide, while Luxembourg would be 1st and the United States, 14th. The average difference between Austria, in 15th place, and the Cayman Islands, in 25th place, is approximately US\$10,000. This shows that exchange rate-based conversion is not a suitable measure for worldwide comparisons, because it tends to exaggerate relative differences between countries. Unlike PPPs, exchange rates do not generally reflect the relative purchasing power of currencies in their domestic market.

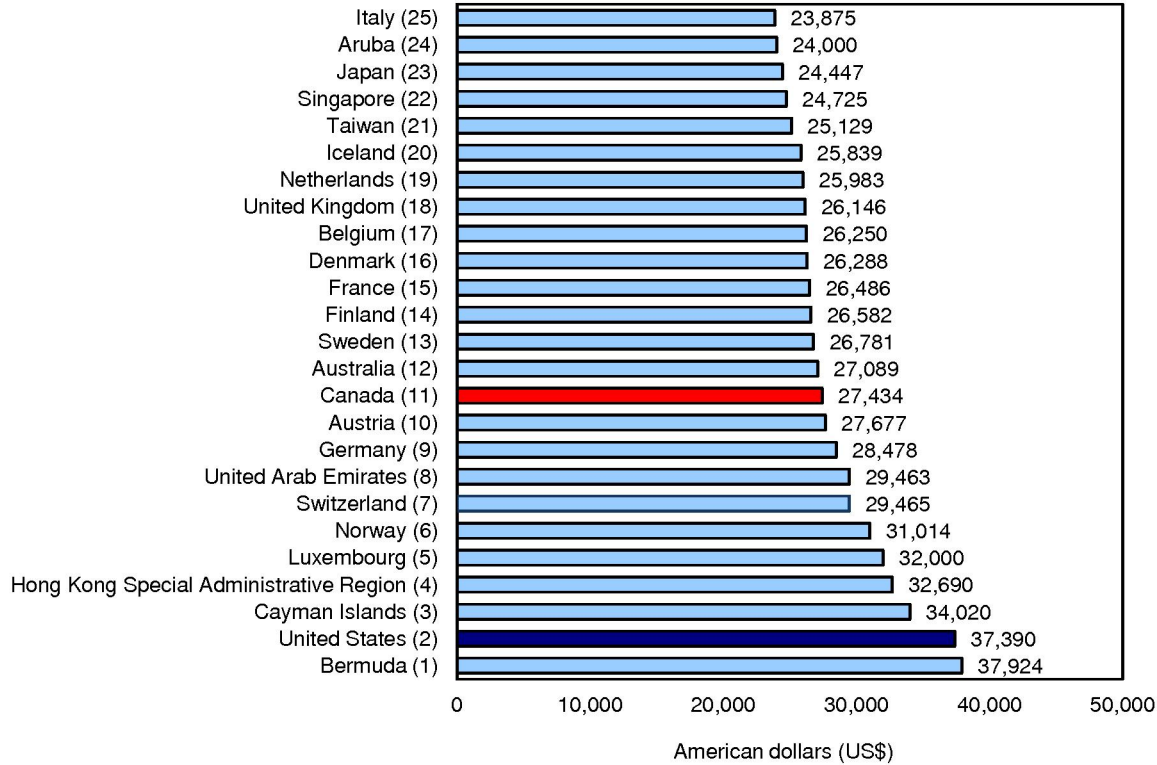
Comparing the two methods of converting GDP per capita into a common currency for the top 25 economies, only 4 countries in the ranking differ depending on the method used. When PPPs are used, the ranking includes Bahrain, the Hong Kong Special Administrative Region, Oman and Saudi Arabia; however, these countries are replaced by Finland, France, Iceland and Japan when exchange rates are used.

In terms of actual individual consumption per capita, Canada ranks 11th worldwide

Final consumption expenditures of households are typically the largest component of GDP and are a more representative variable of material well-being at the household level. The actual individual consumption (AIC) indicator is also calculated by the ICP. It includes the goods and services consumed by households, regardless of whether they are produced or paid for by the households. To this are added the individual expenditures of governments and non-profit institutions serving households. In terms of AIC per capita, Canada ranks 11th in the world, while Bermuda leads the ranking, followed by the United States.

Chart 2

Actual individual consumption per capita in US\$, based on purchasing power parities, by country ranking



The ranking of the 25 countries differs significantly depending on which of the two measures of economic well-being (converted into a common currency using PPPs) is used. If the ranking of the top 25 countries by GDP per capita is compared with the ranking by AIC per capita, 8 countries are different. Those not in the ranking by GDP per capita include Finland, France, the United Kingdom, Iceland, Taiwan, Japan, Aruba and Italy. However, when the comparison is based on AIC per capita, these countries are included in the top 25. The countries they replace in the rankings are Qatar, the Special Administrative Region of Macao, Kuwait, Brunei Darussalam, Saudi Arabia, Bahrain, Ireland and Oman.

Comparing the shares of each GDP component for each country can help identify the underlying reason behind the nearly 30% change in countries observed between GDP per capita and AIC per capita approaches. The GDP components of the ICP are AIC expenditures, collective government consumption expenditures, gross fixed capital formation, changes in inventories and acquisitions, and the balance of exports and imports. For the 8 countries that do not figure among the top 25 economies worldwide based on AIC per capita, the share of the trade balance (exports minus imports) in the GDP based on PPPs is large, while for the other countries it is weaker. It represents at least 13.0% of the GDP of Saudi Arabia and, at most, 33.5% of the GDP of the Special Administrative Region of Macao. This means that a large share of those countries' GDP consists of savings invested in foreign markets. Moreover, 7 of the 8 countries are major petroleum producers.

As well, for these 8 countries, the average propensity to consume is 31.4%. However, for the 17 countries in common between the GDP per capita and AIC per capita approaches, the average propensity to consume is 60.1%.

Actual individual consumption per capita is more relevant for international comparison of well-being

To compare the material well-being of households, it is more suitable to examine the top 25 economies ranked by AIC. The average propensity to consume for these 25 countries is 63.1%, indicating that a large proportion of the GDP is devoted to household consumption. The top 25 countries in this list, which includes Canada and the United States, therefore, consume nearly twice the goods and services produced by their economies than do the group of 8 countries, most of which are among the top-ranked countries in the GDP per capita ranking.

In terms of the difference between the two rankings of the top 25 economies, the gap between 1st place and 25th place under the GDP per capita approach is about US\$105,000, while the difference is US\$21,000 under the AIC per capita approach.

For example, Qatar ranks first in terms of GDP per capita, at US\$146,521, while its AIC per capita is US\$20,552. Of Qatar's GDP, 14.0% is devoted to AIC expenditures and 30.1% is attributable to its net exports.

Note to readers

On April 30, 2014, the International Comparison Program (ICP) of the ICP Global Office, hosted by the World Bank, released an update of its 2011 database comparing the purchasing power in levels of 199 countries. In its previous release in 2005, the database covered 148 countries. To determine the overall ranking of the countries, two main indicators were used: gross domestic product (GDP) per capita and actual individual consumption (AIC) per capita.

The purpose of the ICP is to compare price and actual spending levels of GDP, including its components, using purchasing power parities (PPPs) between participating countries.

The program is the result of a statistical partnership established in 1968 by the Ford Foundation, the World Bank, the United Nations Statistics Division and the University of Pennsylvania International Comparisons Unit. Since then, the number of participating countries has steadily increased. Under the direction of the World Bank, the program is now coordinated by six regional agencies: Africa, Asia and the Pacific, the Commonwealth of Independent States, Latin America and the Caribbean, Western Asia, and Eurostat-OECD.

Statistics Canada participates in the program through the multilateral PPP program of the Organisation for Economic Co-operation and Development (OECD) which, with Eurostat, has provided data for the 47 member countries.

The collection of price data for a fixed basket of goods and services for countries outside the jurisdiction of these two organizations is coordinated by the ICP. Price data for each country are then weighted by the final demand categories in their national accounts to produce PPPs for various categories of spending and for the entire GDP.

Using PPPs to convert GDPs expressed in national currency into a common currency provides a more accurate portrait of each country's economic well-being. The results of the 2011 round are based on the concepts of the 1993 System of National Accounts.

The 2011 round is the second, after that of 2005, to produce robust results that enable international comparisons to be made. However, the results cannot be compared directly between the two years, because of key methodological differences. World Bank analysts note also that users should exercise caution in interpreting the results, since PPPs are statistical estimates and consequently subject to sampling, measurement and classification errors. Therefore, small variations in estimated values between countries should be considered insignificant.

The "2011 ICP Final Report" will be published in summer 2014 and will include analyses and results that are more detailed regarding measures in volume and per capita terms, and the methodology and coverage of surveys for each country.

Definitions

Purchasing power parity (PPP): In its simplest form, a PPP is a ratio of the price of a good or service in one country in the national currency relative to the price of the same item in another country expressed in its currency. In other words, it represents a currency conversion rate that would equalize the purchasing power of the two currencies for the commodity in question. For example, a PPP of 0.90 means that 90 cents US purchases the same quantity of the specified good or service as CAN\$1; thus, the US dollar has greater purchasing power than its Canadian counterpart.

Actual individual consumption (AIC): AIC is the total value of final consumption expenditures of households and non-profit organizations serving households, and the individual consumption expenditures on goods and services of governments, such as education and health.

Table 1
Top 25 countries sorted by the actual individual consumption per capita and related variables

Country	Rank	Real gross domestic product (GDP)	Real (GDP)	Real actual individual consumption	Population	Shares of GDP components based on purchasing power parities	
						Actual individual consumption	Net exports
		billions US\$	US\$ per capita	US\$ per capita	thousands	%	%
Bermuda	1	3.6	54,899	37,924	64.7	69.1	-12.2
United States	2	15,533.8	49,782	37,390	312,036.0	75.1	-3.7
Cayman Islands	3	2.8	49,686	34,020	56.6	68.5	-4.9
Hong Kong Special Administrative Region, China	4	354.5	50,129	32,690	7,071.6	65.2	2.8
Luxembourg	5	46.1	88,670	32,000	519.4	36.1	38.3
Norway	6	306.5	61,879	31,014	4,953.0	50.1	21.2
Switzerland	7	405.9	51,582	29,465	7,869.4	57.1	16.9
United Arab Emirates	8	503.2	60,886	29,463	8,264.1	48.4	12.5
Germany	9	3,352.1	40,990	28,478	81,779.0	69.5	5.6
Austria	10	360.5	42,978	27,677	8,388.5	64.4	3.5
Canada	11	1,416.2	41,069	27,434	34,482.8	66.8	-1.6
Australia	12	956.0	42,000	27,089	22,761.2	64.5	2.0
Sweden	13	394.6	41,761	26,781	9,449.5	64.1	7.6
Finland	14	208.0	38,611	26,582	5,387.4	68.8	-0.9
France	15	2,369.6	36,391	26,486	65,114.7	72.8	-3.5
Denmark	16	233.0	41,843	26,288	5,569.0	62.8	7.5
Belgium	17	440.1	40,093	26,250	10,978.0	65.5	1.0
United Kingdom	18	2,201.4	35,091	26,146	62,735.0	74.5	-1.7
Netherlands	19	720.3	43,150	25,983	16,692.5	60.2	9.9
Iceland	20	12.2	38,226	25,839	319.0	67.6	9.6
Taiwan, China	21	907.1	39,059	25,129	23,224.9	64.3	3.4
Singapore	22	374.8	72,296	24,725	5,183.7	34.2	19.9
Japan	23	4,379.8	34,262	24,447	127,831.0	71.4	-1.2
Aruba	24	3.7	36,017	24,000	101.9	66.6	-11.0
Italy	25	2,056.7	33,870	23,875	60,723.6	70.5	-1.5

Note(s): All data in US dollars have been converted using PPPs.

Detailed results on the 2011 update of the International Comparison Program are available on the World Bank website (www.worldbank.org/data/icp).

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