

RATES OF CONVERSION

To compare a single country's real GDP over a period of years, it is necessary to remove movements that are due to price changes. In the same way, in order to compare the real GDPs of a group of countries at a single point in time, it is necessary to remove any differences in their GDPs that are due to differences in their price levels. Price indices are used to remove the effects of price changes in a single country over time; purchasing power parities (PPPs) are used to remove the effects of the different levels of prices within a group of countries at a point in time.

Market exchange rates are sometimes used to convert national GDPs into a common currency. However, comparisons of GDP based on exchange rates do not reflect well the real volumes of goods and services in the different countries. For many of the low-income countries, for example, the differences between GDP converted using market exchange rates and GDP converted using PPPs are considerable. In general, the use of market exchange rates understates the real GDP of low-income countries and overstates the real GDP of high-income countries.

Definition

PPPs are currency converters that equalise price levels between countries. PPPs have been calculated by comparing the prices in OECD countries of a common basket of about 2 500 goods and services. Countries are not required to price all the items in the common basket because some of the items may be hard to find in certain countries. However, the common basket has been drawn up in such a way that each country can collect prices for a wide range of the goods and services that are representative of their markets.

The goods and services to be priced cover all those that enter into final expenditure: household consumption,

government services, capital formation and net exports. Prices for the different items are weighted by their shares in total final expenditure to obtain the PPPs for GDP shown here.

Comparative price level indices are the ratios of PPPs to market exchange rates. At the level of GDP they provide a measure of the differences in the general price levels of countries.

Comparability

PPPs for the OECD and Russia have been calculated jointly by the OECD and Eurostat using standard procedures. In consultation with their member countries, OECD and Eurostat keep their methodology under review and improvements are made regularly. PPPs for non-OECD countries, with the exception of Russia, are calculated within the framework of the International Comparison Programme (ICP). There are six regions in the ICP programme, of which five – Africa, Asia-Pacific, the Commonwealth of Independent States (CIS), Latin America and Caribbean and Western Asia – are regions overseen by the ICP Global Office at the World Bank.

Overview

Over the period 2002-14, there were significant differences between changes in PPPs and changes in market exchange rates; even when the two indicators moved in the same direction, changes differed in their magnitude.

Price level indices are PPPs estimates for 2014 divided by market exchange rates for the same year, with the OECD set equal to 100. In general, there is a positive correlation between GDP levels and price levels. Australia, Norway and Switzerland, three OECD countries with high per capita income, also recorded the highest price levels in 2014, exceeding the average OECD level by 40% or more, while India had price levels of around 30% of the OECD average. Changes in price level indices should however be interpreted with caution as they are highly dependent on changes in exchange rates.

Sources

- OECD (2013), "PPP benchmark results 2011", OECD National Accounts Statistics (Database).
- For Brazil, China, Indonesia and South Africa, World development indicators (2014), World Bank, <http://data.worldbank.org/data-catalog/world-development-indicators>.

Further information

Analytical publications

- OECD (2008), *Understanding Economic Statistics: An OECD Perspective*, OECD Publishing.

Online databases

- OECD (2015), OECD National Accounts Statistics (Database).

Statistical publications

- OECD (2014), *National Accounts at a Glance*, OECD Publishing.

Websites

- Prices and Purchasing Power Parities (PPP), www.oecd.org/std/ppp.



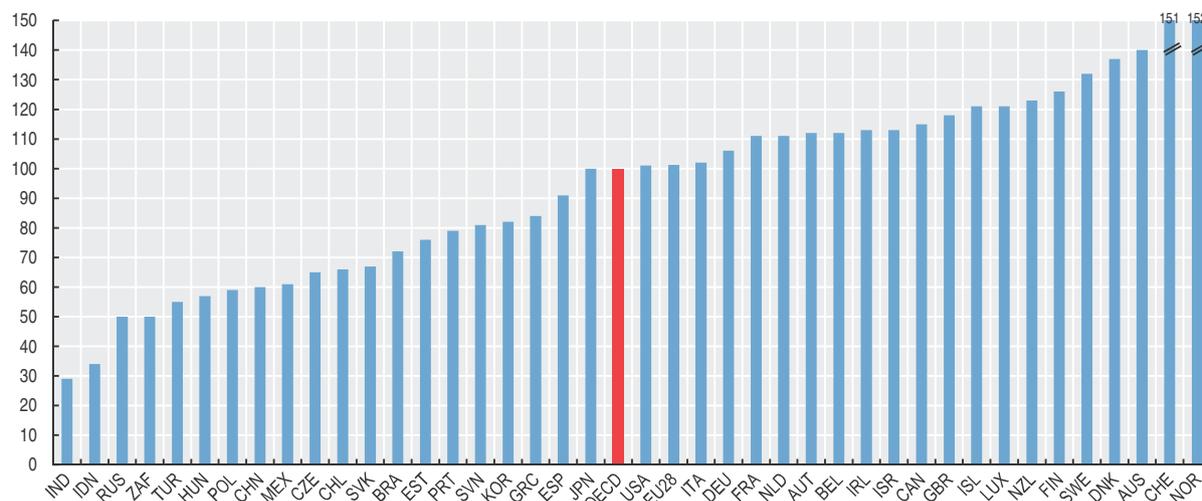
Purchasing power parities and indices of price levels

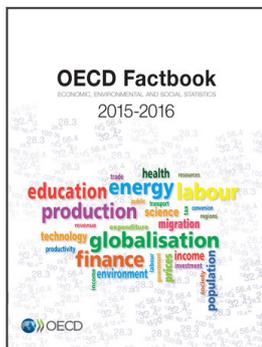
	Purchasing power parities						Indices of price levels					
	National currency units per US dollar						OECD = 100					
	2009	2010	2011	2012	2013	2014	2009	2010	2011	2012	2013	2014
Australia	1.443	1.505	1.511	1.522	1.522	1.536	111	135	148	155	146	140
Austria	0.844	0.841	0.835	0.839	0.844	0.835	116	109	110	106	112	112
Belgium	0.858	0.854	0.840	0.843	0.850	0.838	117	111	111	106	112	112
Canada	1.204	1.221	1.240	1.246	1.252	1.261	104	116	119	122	121	115
Chile	353.070	357.334	348.017	350.295	354.907	370.814	62	68	68	71	71	66
Czech Republic	13.899	13.954	13.998	13.430	13.393	13.332	72	71	72	67	68	65
Denmark	7.833	7.755	7.599	7.664	7.673	7.586	144	135	135	130	136	137
Estonia	0.524	0.524	0.524	0.539	0.551	0.564	72	68	69	68	73	76
Finland	0.903	0.911	0.908	0.918	0.932	0.939	124	118	120	116	123	126
France	0.861	0.857	0.844	0.853	0.854	0.829	118	111	112	108	113	111
Germany	0.809	0.796	0.784	0.786	0.794	0.787	111	103	104	99	105	106
Greece	0.697	0.702	0.700	0.688	0.645	0.626	95	91	93	87	85	84
Hungary	125.553	125.461	124.821	127.936	129.279	132.000	61	59	59	56	58	57
Iceland	124.992	131.845	134.752	136.698	138.204	140.228	100	105	110	107	113	121
Ireland	0.892	0.843	0.832	0.832	0.832	0.841	122	109	110	105	110	113
Israel	3.964	3.971	3.945	3.964	4.006	4.006	99	104	105	101	111	113
Italy	0.779	0.780	0.769	0.764	0.762	0.758	107	101	102	96	101	102
Japan	115.497	111.633	107.454	104.628	104.090	105.270	122	124	128	129	106	100
Korea	824.761	840.569	854.586	860.249	860.219	857.261	64	71	73	75	78	82
Luxembourg	0.907	0.922	0.894	0.898	0.915	0.900	124	119	118	113	121	121
Mexico	7.432	7.670	7.673	7.929	8.042	8.023	54	59	59	59	63	61
Netherlands	0.841	0.849	0.830	0.830	0.829	0.825	115	110	110	105	110	111
New Zealand	1.470	1.494	1.486	1.481	1.468	1.469	90	105	112	118	120	123
Norway	8.956	9.014	8.985	8.903	9.204	9.455	140	146	152	150	156	152
Poland	1.864	1.820	1.828	1.834	1.822	1.828	59	59	59	55	57	59
Portugal	0.633	0.632	0.620	0.593	0.589	0.588	87	82	82	75	78	79
Slovak Republic	0.511	0.510	0.518	0.519	0.513	0.503	70	66	69	65	68	67
Slovenia	0.644	0.641	0.630	0.615	0.608	0.604	88	83	83	78	80	81
Spain	0.709	0.717	0.704	0.688	0.680	0.676	97	93	93	87	90	91
Sweden	8.915	8.995	8.853	8.824	8.807	8.950	115	122	130	128	135	132
Switzerland	1.519	1.509	1.433	1.397	1.379	1.370	137	142	153	146	148	151
Turkey	0.912	0.941	0.992	1.051	1.112	1.199	58	61	56	57	58	55
United Kingdom	0.656	0.691	0.700	0.695	0.699	0.708	101	104	107	108	109	118
United States	1.000	1.000	1.000	1.000	1.000	1.000	98	98	95	98	100	101
EU 28	0.752	0.763	0.755	0.760	0.755	0.755	103	99	100	96	100	101
Brazil	1.311	1.402	1.471	1.517	1.608	1.667	65	78	84	76	74	72
China	3.147	3.316	3.506	3.514	3.521	3.655	45	48	52	55	57	60
India	13.182	14.194	15.109	15.915	16.762	17.689	27	30	31	29	28	29
Indonesia	3 181.203	3 402.693	3 606.566	3 699.950	3 803.351	3 941.790	30	37	39	39	36	34
Russian Federation	14.019	15.815	17.346	18.043	18.425	19.066	44	51	56	57	58	50
South Africa	4.322	4.598	4.774	4.901	5.110	5.342	50	61	62	59	53	50

 1 2 <http://dx.doi.org/10.1787/888933336563>

Indices of price levels

OECD = 100, 2014


 1 2 <http://dx.doi.org/10.1787/888933335476>



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