

## REAL EFFECTIVE EXCHANGE RATES

Effective exchange rates are a summary measure of the changes in the exchange rates of a country *vis-à-vis* its trading partners. This section shows two indicators of real effective exchange rates, namely changes in either consumer good prices or unit labour costs in manufacturing of a given country relative to those of its competitors. These indicators provide a broad interpretation of a country's price competitiveness. This competitiveness is, in turn, a major determinant of the success of different countries in raising productivity, fostering innovation and improving living standards.

There are several ways of looking at exchange rates as a measure of competitiveness. One indicator is the nominal effective exchange rate; other things being equal, a nominal depreciation of any country's currency leads, in the short run, to a decrease in the relative price of its products internationally. Potential competitiveness gains derived from nominal exchange rate depreciations however, can be eroded by local inflation. Real effective exchange rates try to eliminate this factor. A real effective exchange rate based on consumer prices try to get around this problem. However, this raises another issue, namely the assumption that the relative price of domestic tradable goods as compared with foreign tradables evolves in parallel to the relative consumer prices. Changes in relative consumer prices are therefore not the best measure of a country's competitive position, as their movement also reflects trends in the price of non-tradable goods. In an attempt to remove these differences, relative production costs can be used; these are generally measured by trade weighted relative unit labour costs in the manufacturing sector.

### Overview

Since 2000 a number of patterns are evident. Germany experienced little variation in both measures of the real exchange rates and, to a lesser extent, so has its closest trading partner France. Japan and the United States, however, both recorded significant improvements in their competitiveness over this ten year period. For example, the United States saw a 36.9% depreciation and Japan a 28.8% depreciation in their real effective exchange rates based on unit labour costs in manufacturing. Depreciation of unit labour cost-based real effective exchange rates in Turkey virtually matched that of the US, displaying less variability over last 10 years. However, unlike the United States, real effective exchange rates based on CPI have appreciated. Following a long period of stability, Canada experienced significant deterioration of competitiveness compared to 2000 (a 80% increase in real effective exchange rates based on unit labour costs). Australia and New Zealand are not too far from Canada, although New Zealand was still more competitive in 2010 compared to 2005. At the same time, the appreciation in relative consumer prices in Canada and New Zealand is somewhat less pronounced, pointing to more stability in prices of non-tradable goods.

### Definition

Nominal effective exchange rate indices are calculated by comparing, for each country, the change in its own exchange rate against the US dollar to a weighted average of changes in its competitors' exchange rates, also against the US dollar. Changes in the competitor exchange rates are weighted using a matrix measuring the importance of bilateral trade flows in the current year.

The two indicators of real effective exchange rates shown here, relative consumer price indices and relative unit labour costs in manufacturing, take into account not only changes in market exchange rates but also variations in relative prices using, respectively, consumer prices and unit labour costs in manufacturing.

The change in a country's relative consumer prices between two years is obtained by comparing the change in the country's consumer price index converted into US dollars at market exchange rates to a weighted average of changes in its competitors' consumer price indices, also expressed in US dollars. The weighted average of competitors' prices is based on a matrix for the current year expressing the importance of bilateral trade. Changes in the index of relative unit labour costs in manufacturing are calculated in the same way.

A rise in the indices represents a deterioration in that country's competitiveness. Real exchange rates are a major short-run determinant of any country's capacity to compete. Note that the indices only show changes in the international competitiveness of each country over time. Differences between countries in the levels of the indices have no significance.

### Comparability

The indices shown here are constructed using a common procedure that assures a high degree of comparability both across countries and over time.

### Sources

- OECD (2011), *OECD Economic Outlook*, OECD Publishing.

### Further information

#### Analytical publications

- OECD (2011), *OECD Economic Surveys*, OECD Publishing.

#### Statistical publications

- OECD (2011), *Main Economic Indicators*, OECD Publishing.

#### Methodological publications

- Durand, M., C. Madaschi and F. Terribile (1998), "Trends in OECD Countries' International Competitiveness", *OECD Economics Department Working Papers*, No. 195.
- Durand, M., J. Simon and C. Webb (1992), "OECD's Indicators of International Trade and Competitiveness", *OECD Economics Department Working Papers*, No. 120.

#### Online databases

- *OECD Economic Outlook: Statistics and Projections*.

#### Websites

- *OECD Economic Outlook – Sources and Methods*, [www.oecd.org/eco/sources-and-methods](http://www.oecd.org/eco/sources-and-methods).



## Real effective exchange rates

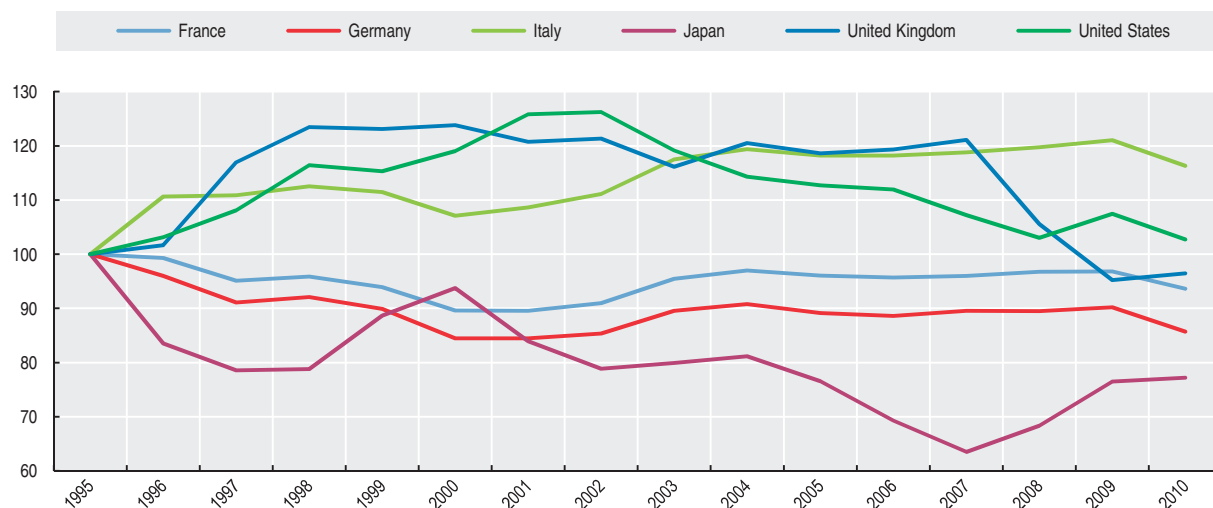
2005 = 100

	Based on consumer price indices							Based on unit labour costs in manufacturing						
	1990	2000	2006	2007	2008	2009	2010	1990	2000	2006	2007	2008	2009	2010
Australia	97.2	77.7	99.9	105.9	103.8	100.6	114.9	79.0	73.2	100.3	109.6	107.2	105.0	115.6
Austria	101.5	95.9	99.4	99.8	100.0	100.6	98.2	109.3	94.9	98.2	96.7	93.9	95.3	93.4
Belgium	98.8	91.1	99.7	100.5	103.3	103.4	100.4	95.7	90.2	102.5	103.9	104.6	105.9	101.4
Canada	112.1	83.6	105.6	109.6	107.3	101.9	111.8	83.5	65.7	109.4	117.4	114.7	109.1	118.0
Chile	..	104.1	104.0	102.1	103.6	100.0	106.4	..	97.7	105.5	106.7	111.4	110.4	120.9
Czech Republic	..	80.4	105.5	108.3	123.9	118.9	120.9	..	75.2	100.4	102.0	109.3	101.2	97.7
Denmark	96.7	92.1	99.7	100.2	101.8	104.9	101.2	80.9	83.7	100.9	103.2	100.9	101.2	97.8
Estonia	..	88.5	101.7	106.4	113.9	116.3	112.4	..	87.9	104.0	117.3	125.4	132.4	108.1
Finland	142.2	96.0	99.0	100.3	102.1	103.0	97.1	174.6	101.7	93.7	88.1	87.2	89.8	85.7
France	103.0	93.3	99.6	99.9	100.7	100.8	97.5	112.3	95.2	101.4	103.6	104.6	107.0	103.1
Germany	101.2	94.8	99.4	100.5	100.4	101.2	96.2	94.2	99.5	95.9	95.2	97.4	101.4	99.4
Greece	84.6	88.1	100.9	102.6	104.8	106.1	105.5	..	..	..	..	..	..	..
Hungary	..	75.1	95.4	106.3	109.0	102.4	104.1	..	79.6	92.5	98.3	100.0	92.5	86.0
Iceland	87.6	85.9	93.7	97.5	76.4	62.0	66.0	65.7	84.2	97.4	104.4	77.3	53.2	60.0
Ireland	95.1	80.6	101.8	106.9	112.7	108.8	101.4	129.5	87.8	99.6	96.0	96.0	84.4	71.0
Israel	..	128.6	99.7	100.6	112.5	109.5	114.9	..	122.1	102.6	107.2	117.3	108.7	118.2
Italy	112.4	90.6	100.0	100.5	101.3	102.4	98.4	99.7	79.1	100.9	104.0	108.3	110.2	107.1
Japan	92.5	122.4	90.5	82.9	89.3	99.9	100.8	105.4	141.4	88.0	77.6	81.9	94.8	100.4
Korea	102.4	86.4	107.8	107.1	86.7	76.0	82.4	107.8	85.0	103.9	101.6	77.4	62.5	66.2
Luxembourg	98.8	93.5	100.9	102.3	103.1	102.9	101.4	97.2	82.9	106.7	99.7	108.4	113.5	100.9
Mexico	81.6	105.1	100.0	99.1	97.4	85.4	92.4	64.0	91.3	100.7	100.7	94.3	78.7	84.4
Netherlands	94.4	86.9	99.0	99.8	100.2	101.2	96.4	98.0	88.0	98.1	97.7	100.4	99.4	93.3
New Zealand	87.1	71.6	93.2	99.7	93.1	86.7	93.7	75.4	64.5	95.4	103.5	95.9	85.8	94.5
Norway	101.8	91.0	99.9	99.7	99.7	98.1	102.7	72.4	88.5	108.4	115.1	115.1	111.0	119.4
Poland	..	94.0	102.2	105.7	115.4	97.6	103.7	..	125.8	97.9	98.7	107.7	82.7	82.6
Portugal	82.3	91.7	100.6	101.2	101.1	100.3	97.7	76.9	92.9	101.2	99.9	100.3	98.7	99.3
Slovak Republic	..	76.9	105.4	116.2	125.8	135.2	129.5	..	116.4	104.6	109.1	111.0	110.9	104.8
Slovenia	..	94.1	99.8	101.7	104.2	106.0	102.1	..	87.2	100.9	103.7	105.3	112.2	110.1
Spain	105.9	88.1	101.5	103.0	105.1	105.1	102.2	94.3	84.8	102.5	107.3	111.0	109.9	106.2
Sweden	129.0	104.2	99.6	100.5	98.1	88.8	95.0	196.8	118.1	95.2	99.3	100.2	97.8	94.7
Switzerland	99.9	96.2	97.4	93.2	97.1	101.1	105.8	78.0	86.2	99.3	97.9	101.9	108.9	115.3
Turkey	79.5	92.4	99.6	108.1	109.6	102.5	113.3	116.9	116.4	96.3	99.9	91.4	72.7	75.6
United Kingdom	97.6	104.4	100.6	102.1	89.0	80.3	81.3	82.8	98.4	102.1	104.6	90.0	83.2	87.7
United States	92.3	105.6	99.3	95.1	91.4	95.3	91.1	131.2	135.1	96.8	89.5	87.1	90.5	85.3

 StatLink <http://dx.doi.org/10.1787/888932504652>

## Real effective exchange rates based on consumer price indices

1995 = 100


 StatLink <http://dx.doi.org/10.1787/888932504671>





## **ENERGY AND TRANSPORTATION**

### **ENERGY REQUIREMENT**

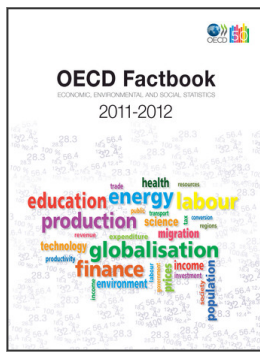
- ENERGY SUPPLY
- ENERGY INTENSITY
- ENERGY SUPPLY PER CAPITA
- ELECTRICITY GENERATION
- NUCLEAR ENERGY
- RENEWABLE ENERGY

### **ENERGY PRODUCTION AND PRICES**

- ENERGY PRODUCTION
- OIL PRODUCTION
- OIL PRICES

### **TRANSPORT**

- GOODS TRANSPORT
- PASSENGER TRANSPORT
- ROAD FATALITIES



**From:**  
**OECD Factbook 2011-2012**  
Economic, Environmental and Social Statistics

**Access the complete publication at:**  
<https://doi.org/10.1787/factbook-2011-en>

**Please cite this chapter as:**

OECD (2011), "Real effective exchange rates", in *OECD Factbook 2011-2012: Economic, Environmental and Social Statistics*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/factbook-2011-45-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).