

## 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. In addition to indices of nominal exchange rates, which reflect only variations in market exchange rates, this section also 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.

### Definition

The 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.

### Overview

Since 2000, Germany and Italy experienced higher nominal effective exchange rates, while the United States experienced a continuous depreciation in effective terms. Since 2007, nominal effective exchange rates depreciated significantly in the United Kingdom, while they appreciated in Japan.

Changes in real effective exchange rates generally followed those recorded for market exchange rates. When looking at unit labour costs in manufacturing, a significant improvement in international competitiveness was recorded by Japan and, to a less extent, by the United States, Germany and France. Since the year 2000, the exchange rate of Italy appreciated in real terms by more than 50%, while a similar appreciation in the United Kingdom was partly reversed.

Movements in relative consumer prices point to real effective appreciations in Italy but also, to a lesser extent in the United Kingdom and the United States, as well as to depreciations in Japan, Germany and France. Changes in relative consumer prices are however a poorer measure of countries' competitive positions, as their movements also reflect trends in the price of non-tradable goods.

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. 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

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

### Sources

- OECD (2008), *OECD Economic Outlook, June No. 83 – Vol. 2008/1*, OECD, Paris.

### Further information

#### Statistical publications

- OECD (2010), *Main Economic Indicators*, OECD, Paris.

#### Methodological publications

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

#### Online databases

- OECD Economic Outlook Statistics.

#### Web sites

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



**Nominal effective exchange rates**

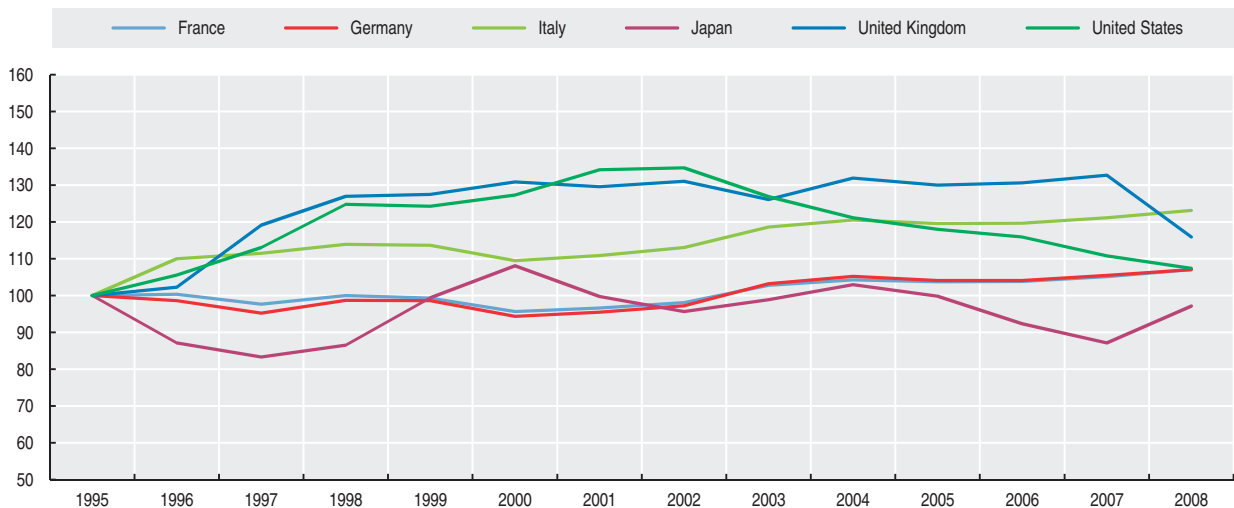
Year 2005 = 100

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Australia	86.6	94.9	96.1	89.4	89.7	83.3	78.1	80.9	90.4	97.6	100.0	98.5	104.7	102.4
Austria	97.9	97.0	95.1	97.0	97.7	95.5	95.9	96.5	99.7	100.7	100.0	100.1	100.6	101.1
Belgium	98.4	96.8	92.9	95.2	94.9	91.2	92.3	93.9	98.8	100.5	100.0	100.1	101.4	103.6
Canada	85.2	86.8	87.0	82.9	82.7	83.5	81.0	79.7	88.1	93.5	100.0	106.6	111.5	111.2
Czech Republic	79.5	80.8	78.4	79.7	79.4	80.4	84.5	94.1	93.8	94.1	100.0	105.0	107.2	119.6
Denmark	97.4	96.5	94.2	96.6	96.0	92.1	93.8	95.1	99.6	100.9	100.0	99.9	101.1	103.3
Finland	93.0	90.7	88.7	91.3	93.9	89.7	91.6	93.5	98.9	100.8	100.0	99.8	101.4	104.0
France	96.4	96.7	94.1	96.4	95.7	92.2	93.1	94.6	99.0	100.5	100.0	100.1	101.3	103.2
Germany	96.0	94.7	91.5	94.8	94.7	90.6	91.7	93.4	99.2	101.1	100.0	100.0	101.4	102.8
Greece	104.8	103.1	101.3	98.2	98.6	92.1	93.0	94.7	99.3	100.9	100.0	100.0	101.4	103.7
Hungary	137.8	117.4	108.7	98.5	94.9	90.0	91.8	98.1	97.5	99.5	100.0	93.6	99.1	99.7
Iceland	90.1	89.6	91.6	94.1	95.6	96.6	82.3	84.9	88.9	89.9	100.0	89.5	90.5	66.1
Ireland	96.8	99.3	99.1	96.2	93.4	87.0	88.1	90.2	98.0	100.2	100.0	100.2	102.7	107.8
Italy	83.6	92.0	93.2	95.2	95.0	91.6	92.7	94.5	99.2	100.8	100.0	100.1	101.3	102.9
Japan	100.1	87.3	83.4	86.6	99.5	108.3	99.9	95.7	99.0	103.1	100.0	92.5	87.2	97.3
Korea	113.2	115.0	106.4	77.0	88.4	94.7	87.5	90.4	89.8	89.8	100.0	107.9	107.2	86.5
Luxembourg	100.1	99.0	96.8	97.8	97.5	94.8	95.2	96.2	99.5	100.6	100.0	100.0	101.1	101.9
Mexico	164.4	139.6	137.0	121.7	116.1	118.6	121.9	118.3	103.3	97.2	100.0	99.4	97.5	95.1
Netherlands	96.5	95.2	90.7	93.8	93.6	88.8	90.0	92.1	98.3	100.7	100.0	100.0	101.8	103.9
New Zealand	86.1	91.6	93.8	84.2	81.3	73.7	72.7	78.7	89.5	95.5	100.0	92.3	98.6	92.1
Norway	94.5	94.6	95.5	92.7	92.4	90.5	93.4	101.4	99.2	95.8	100.0	99.4	100.9	100.9
Poland	118.4	110.4	102.5	100.3	93.6	96.5	106.3	101.7	91.4	89.5	100.0	103.0	106.5	115.7
Portugal	100.0	99.6	98.2	98.2	97.6	95.3	96.2	97.2	99.8	100.5	100.0	100.0	100.7	101.9
Slovak Republic	91.2	92.0	96.2	96.1	89.3	90.8	88.6	89.0	94.1	98.1	100.0	103.0	113.5	121.6
Spain	99.2	100.1	96.1	97.3	96.4	93.5	94.5	95.9	99.4	100.5	100.0	100.1	101.0	102.7
Sweden	95.2	104.8	101.5	101.2	101.0	101.3	93.1	95.3	100.8	102.6	100.0	100.3	101.5	99.7
Switzerland	94.0	92.8	87.6	91.3	92.0	90.4	94.1	98.8	100.4	100.8	100.0	98.5	95.8	101.1
Turkey	2 625.3	1 539.7	915.3	550.5	363.4	265.0	149.1	110.7	97.5	95.0	100.0	93.1	95.0	91.2
United Kingdom	76.9	78.6	91.7	97.6	98.0	100.7	99.6	100.8	97.0	101.5	100.0	100.4	102.1	89.2
United States	84.7	89.5	95.8	105.8	105.4	108.0	113.7	114.2	107.5	102.7	100.0	98.3	93.9	91.0
Euro area	90.1	92.0	86.1	91.2	90.2	82.1	84.1	87.3	97.9	101.6	100.0	100.1	103.1	107.1
Brazil	223.5	208.7	207.4	202.1	130.4	134.8	109.0	96.7	83.2	83.4	100.0	111.0	119.6	125.0
China	86.0	89.7	95.5	103.5	103.0	104.7	109.9	109.7	104.2	100.3	100.0	102.4	104.7	112.1
India	115.8	109.5	116.1	111.0	109.4	110.7	110.3	105.4	101.3	98.7	100.0	96.0	99.6	92.1
Indonesia	366.7	374.6	344.3	106.1	129.5	123.7	108.1	118.1	120.4	110.2	100.0	104.3	100.0	90.6
Russian Federation	509.2	479.6	478.9	383.9	126.2	122.0	123.0	111.0	100.1	99.1	100.0	103.0	101.8	99.0

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**Nominal effective exchange rates**

Year 1995 = 100




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## EFFECTIVE EXCHANGE RATES

## Real effective exchange rates based on consumer price indices

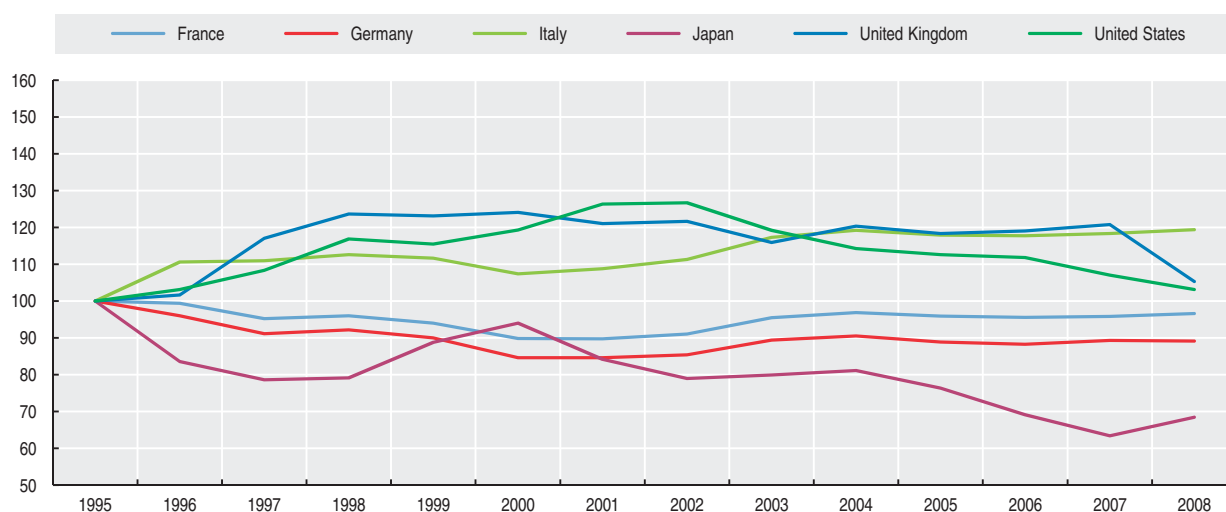
Year 2005 = 100

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Australia	82.0	89.7	88.8	81.2	81.7	78.1	75.1	79.4	89.7	97.1	100.0	99.9	106.0	104.0
Austria	105.7	103.3	99.6	99.8	98.7	96.3	96.5	96.9	99.6	100.5	100.0	99.4	99.7	99.9
Belgium	103.3	100.7	95.5	96.4	95.1	91.4	92.3	93.7	98.1	99.8	100.0	99.7	100.4	103.3
Canada	89.5	89.5	88.8	83.8	83.2	83.7	81.1	80.4	89.4	94.3	100.0	105.6	109.7	107.5
Czech Republic	67.7	72.1	73.3	80.3	79.2	80.8	86.2	95.8	93.7	94.3	100.0	105.5	108.3	123.9
Denmark	97.5	96.1	93.6	95.8	95.8	92.5	93.9	95.7	100.4	101.0	100.0	99.7	100.2	101.8
Finland	109.3	102.9	99.2	100.8	100.7	96.4	97.7	98.8	102.8	102.6	100.0	99.0	100.2	102.0
France	104.2	103.6	99.2	100.1	98.0	93.6	93.5	94.9	99.5	101.0	100.0	99.6	99.9	100.7
Germany	112.5	108.0	102.5	103.7	101.3	95.2	95.2	96.1	100.6	101.9	100.0	99.3	100.5	100.3
Greece	92.3	94.9	95.6	94.1	94.6	88.5	89.4	92.0	97.5	99.6	100.0	100.9	102.5	104.7
Hungary	67.1	67.8	72.0	72.4	74.5	75.6	81.8	90.1	92.0	98.0	100.0	95.3	106.2	108.8
Iceland	77.4	76.8	78.5	80.5	82.8	86.0	76.4	81.7	85.9	88.1	100.0	93.7	97.5	76.4
Ireland	87.9	89.3	88.5	86.5	83.8	80.7	83.9	88.5	97.6	100.0	100.0	101.8	106.9	112.8
Italy	84.8	93.8	94.1	95.5	94.7	91.1	92.3	94.4	99.5	101.1	100.0	99.9	100.4	101.3
Japan	130.9	109.4	102.9	103.6	116.3	123.1	110.2	103.4	104.6	106.2	100.0	90.5	83.0	89.6
Korea	95.4	98.8	92.7	70.4	80.3	86.5	81.9	86.3	87.6	89.0	100.0	108.2	107.4	87.1
Luxembourg	102.4	99.9	96.3	96.3	95.6	93.6	94.3	95.5	99.0	100.2	100.0	100.9	102.3	103.2
Mexico	67.8	75.7	87.5	88.4	96.7	105.1	112.1	112.5	100.4	96.4	100.0	100.0	99.1	97.5
Netherlands	98.1	95.4	90.1	92.8	92.2	87.3	89.9	93.4	99.9	101.4	100.0	99.0	99.8	100.2
New Zealand	86.4	91.7	93.2	83.1	79.1	71.8	71.0	77.8	88.4	94.6	100.0	93.2	99.7	93.2
Norway	94.1	93.0	94.0	91.7	92.2	91.1	94.7	102.1	100.5	96.0	100.0	99.9	99.7	99.7
Poland	74.6	80.1	82.8	88.2	85.7	94.5	106.6	101.8	90.3	89.4	100.0	102.2	105.6	115.2
Portugal	94.1	94.0	92.8	93.6	93.7	91.8	94.1	96.3	99.9	100.7	100.0	100.6	101.2	101.2
Slovak Republic	66.8	66.7	70.3	70.8	69.9	77.1	78.1	79.1	89.1	97.6	100.0	105.4	116.1	125.7
Spain	92.1	93.6	89.3	90.3	90.2	88.2	90.3	92.7	97.3	99.3	100.0	101.5	103.0	105.1
Sweden	108.6	116.9	111.0	108.1	106.1	104.6	96.0	98.5	104.1	104.3	100.0	99.5	100.5	98.1
Switzerland	110.6	106.6	98.2	100.5	99.3	96.5	98.8	102.6	102.8	101.9	100.0	97.4	93.2	97.2
Turkey	66.5	67.2	71.6	79.0	83.1	92.9	75.8	82.6	87.0	89.9	100.0	99.6	107.9	109.4
United Kingdom	84.5	85.9	98.9	104.5	104.1	104.9	102.3	102.8	98.0	101.7	100.0	100.6	102.1	89.0
United States	88.8	91.6	96.2	103.8	102.6	106.0	112.2	112.5	105.9	101.5	100.0	99.3	95.1	91.6
Euro area	104.0	102.6	93.4	95.8	92.5	83.4	85.0	88.3	98.7	102.1	100.0	99.6	101.8	103.8
Brazil	124.7	130.9	135.0	132.6	88.3	95.8	83.5	80.0	77.1	80.5	100.0	112.3	121.7	128.4
China	87.3	93.9	99.1	103.6	100.9	102.6	107.8	106.7	101.9	100.1	100.0	101.8	106.8	116.5
India	85.1	84.8	93.4	98.0	98.1	100.8	101.7	100.0	97.9	96.9	100.0	99.3	106.9	101.6
Indonesia	122.8	132.0	125.2	59.7	87.2	85.0	81.8	99.3	106.4	101.4	100.0	115.9	115.4	110.1
Russian Federation	74.1	98.2	107.0	94.4	61.0	69.0	81.7	83.2	83.5	89.7	100.0	110.7	116.2	123.9
South Africa	..	..	110.5	102.3	96.4	94.1	83.1	71.7	93.4	99.5	100.0	94.9	88.2	77.1

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## Real effective exchange rates based on consumer price indices

Year 1995 = 100


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**Real effective exchange rates based on unit labour costs in manufacturing**

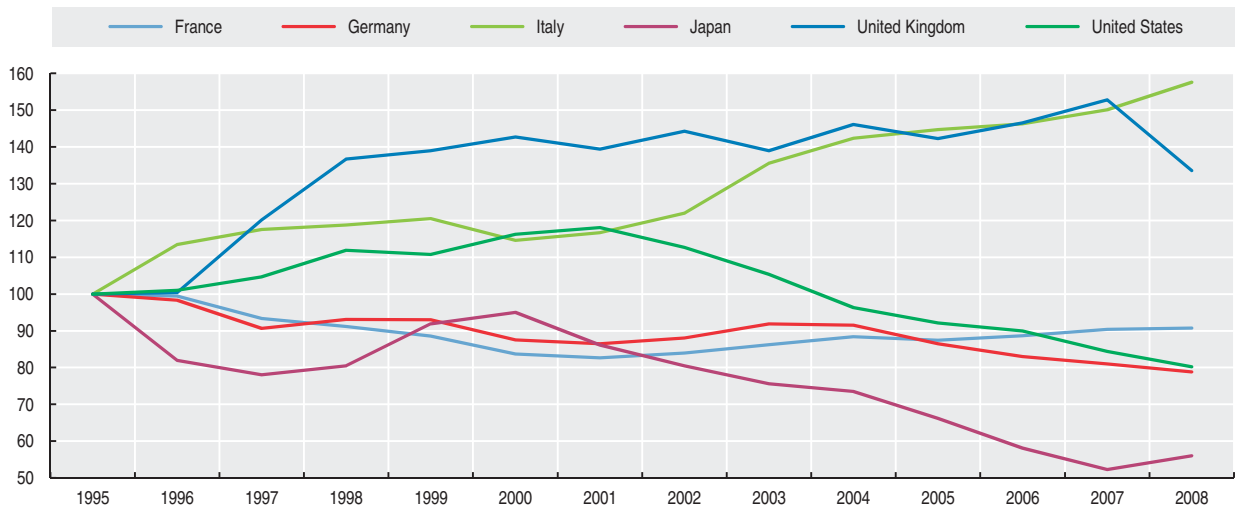
Year 2005 = 100

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Australia	72.1	80.1	80.9	74.1	78.3	73.3	67.7	71.2	81.9	92.0	100.0	101.1	108.6	107.3
Austria	107.8	102.4	99.6	101.2	100.1	94.7	94.2	95.0	98.6	100.0	100.0	97.9	97.6	96.9
Belgium	104.5	100.0	92.6	93.5	94.6	89.8	91.9	93.9	99.1	100.0	100.0	100.6	102.5	104.1
Canada	72.6	76.0	75.8	71.7	71.3	68.4	69.3	71.1	81.7	91.0	100.0	107.7	114.3	115.1
Czech Republic	67.8	73.8	74.5	83.5	76.8	75.5	85.4	96.8	100.9	98.5	100.0	101.3	101.9	113.7
Denmark	83.5	84.9	82.3	85.7	86.4	83.6	85.6	89.2	95.4	98.0	100.0	101.8	105.5	111.0
Finland	127.2	118.8	112.2	113.3	113.5	101.7	101.0	98.8	101.1	101.4	100.0	94.8	89.9	90.6
France	114.4	113.8	106.8	104.3	101.3	95.7	94.6	96.0	98.6	101.1	100.0	101.4	103.4	103.8
Germany	115.6	113.7	104.8	107.6	107.5	101.2	100.0	101.8	106.2	105.8	100.0	95.9	93.6	91.1
Greece	113.1	115.8	124.0	119.0	115.5	107.7	104.9	126.1	127.1	120.1	100.0	100.0	105.2	107.4
Hungary	94.6	87.4	86.1	80.1	77.3	79.9	86.4	92.8	90.2	96.9	100.0	92.3	98.0	102.4
Iceland	60.9	60.7	64.1	70.0	77.7	84.4	73.8	78.3	82.6	85.3	100.0	97.4	104.3	77.8
Ireland	122.6	122.1	116.1	105.1	97.5	89.8	87.0	82.1	90.7	94.4	100.0	97.7	94.4	100.0
Italy	69.1	78.4	81.2	82.1	83.3	79.2	80.6	84.3	93.7	98.4	100.0	101.1	103.7	108.9
Japan	151.0	123.7	117.8	121.5	138.8	143.5	130.1	121.5	114.2	111.0	100.0	87.8	78.9	84.6
Korea	114.7	124.2	109.7	76.2	80.0	85.2	80.1	84.7	84.0	87.0	100.0	104.5	101.4	75.9
Luxembourg	100.5	98.9	93.7	90.0	86.4	85.6	90.4	91.2	94.2	95.5	100.0	110.8	110.8	118.8
Mexico	55.7	59.0	70.1	72.0	82.3	95.4	106.2	111.6	99.9	96.5	100.0	100.5	98.7	94.5
Netherlands	97.5	94.3	91.5	95.1	94.7	88.2	89.9	93.5	101.3	102.8	100.0	99.0	100.4	103.0
New Zealand	71.8	78.3	81.2	73.5	70.5	62.2	63.8	69.5	80.6	89.1	100.0	96.1	105.1	99.7
Norway	76.4	75.8	80.1	79.7	86.4	88.4	91.4	101.8	96.7	93.3	100.0	108.8	115.1	116.0
Poland	111.2	118.4	122.2	129.4	123.5	126.7	131.2	115.3	94.2	88.8	100.0	97.2	96.7	102.1
Portugal	94.2	91.1	89.7	92.5	94.6	93.1	93.3	95.0	96.6	98.3	100.0	101.5	98.9	98.2
Slovak Republic	93.8	98.0	117.4	107.1	99.2	116.1	103.7	103.8	104.0	100.2	100.0	104.6	108.5	124.7
Spain	86.4	88.4	86.5	86.9	85.2	84.5	85.7	88.0	93.6	97.2	100.0	102.4	104.9	110.4
Sweden	124.6	141.0	131.7	124.2	115.2	115.9	111.5	107.8	110.1	105.9	100.0	94.6	99.0	100.0
Switzerland	91.2	87.8	82.7	85.4	86.8	86.4	91.9	97.8	99.4	98.7	100.0	99.6	98.4	103.6
Turkey	69.8	68.2	76.8	83.8	108.1	116.3	88.1	89.5	87.2	90.3	100.0	96.8	102.5	103.2
United Kingdom	70.3	70.6	84.5	96.1	97.7	100.3	98.0	101.4	97.7	102.7	100.0	103.0	107.4	93.9
United States	108.5	109.6	113.6	121.4	120.2	126.1	128.1	122.3	114.3	104.5	100.0	97.6	91.6	87.0
Euro area	105.3	106.0	95.7	97.2	95.6	84.8	84.4	88.8	100.0	103.7	100.0	98.5	99.4	102.1
Brazil	154.4	162.2	160.7	152.5	94.3	98.9	82.8	77.0	72.6	78.6	100.0	111.9	121.8	132.0
Indonesia	167.2	164.0	159.0	46.4	71.0	72.7	82.7	98.2	104.8	102.1	100.0	115.2	110.0	100.9
Russian Federation	71.8	103.6	113.8	101.8	44.0	57.5	78.2	83.3	83.7	93.3	100.0	116.0	134.1	151.8

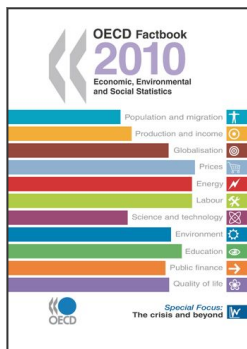
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**Real effective exchange rates based on unit labour costs in manufacturing**

Year 1995 = 100



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