Box 8

THE EFFECTIVE EXCHANGE RATES OF THE EURO FOLLOWING THE RECENT EURO AREA AND EU ENLARGEMENTS

The ECB computes and publishes the nominal and real effective exchange rates (EERs) of the euro against different groups of trading partners. The EERs are computed using a methodology agreed in 1999 with the national central banks of the then 15 EU Member States.[1] The indicators are constructed by applying overall trade weights to the bilateral exchange rates of the euro against the currencies of selected trading partners of the euro area. The weights are based on three-year averages of manufacturing trade data in the periods 1995-1997 and 1999-2001, and are also designed to capture the effect of competition in third markets. The first of the updates of the trade weights, which are scheduled at five-year intervals, took place in September 2004.[2] The EER indices are based on 1995-1997 weights until 1998 and on 1999-2001 weights thereafter. On the occasion of the recent enlargements of the euro area and the EU, a number of methodological and compositional changes were introduced to the set of euro EERs published by the ECB. The aim of this box is to provide a brief overview of these changes, present the resulting trade weights and, finally, briefly analyse the new set of indicators.

The composition of the groups of trading partners underlying the set of EERs was modified from 1 January 2007 to account for the adoption of the euro by Slovenia and the accession of Bulgaria and Romania to the EU. Applying the same approach as that adopted for the recent publication of the Harmonised Competitiveness Indicators (HCIs), the broadest group of euro area trading partners has been extended to include three more non-EU countries, and a simplified calculation has been introduced for the trade weights of the narrower EER groups.[3]

In the light of the above, the EER-23 reference group, which encompasses all non-euro area EU Member States and other major trading partners, has been modified by removing Slovenia and adding Bulgaria and Romania. The resulting group is now composed of 24 trading partners and has, therefore, been renamed the EER-24 group. At the same time, the composition of the EER-42 group has also been modified by excluding Slovenia and adding Chile, Venezuela and Iceland. As a consequence, the broadest EER reference group now comprises 44 trading partners and has been renamed the EER-44 group. The composition of the EER-12, comprising 12 of the main trading partners of the euro area, remains unchanged.[4] Also in line with the scheme adopted for the HCIs, the trade weights for the narrower groups (i.e. the EER-12 and EER-24) are now calculated by re-scaling the trade weights of the broadest group (the EER-44)[5].

1 For a description of the underlying methodology, see L. Buldorini, S. Makrydakis and C. Thimann (2002), "The effective exchange rate of the euro", ECB Occasional Paper No 2.
2 At that time, the most recent year for which manufacturing trade data was available for all trading partners was 2001. See the box entitled "Update of the overall trade weights for the effective exchange rates of the euro and computation of a new set of euro indicators" in the September 2004 issue of the ECB Monthly Bulletin.
3 See the box entitled "The introduction of harmonised competitiveness indicators for euro area countries" in the February 2007 issue of the ECB Monthly Bulletin and http://www.ecb.int/stats/exchange/hci/html/hci_2007-01.en.html.
4 Although China is among the most important trading partners of the euro area, it is not included in the EER-12 reference group because of limited data availability for the 1980s.
5 Previously, the weights were completely recalculated for each trading partner group. The new treatment simplifies the computations and ensures that the trade data employed for the EER-44 group are also used for the EER-12 and EER-24, in particular, as regards competition in third markets.

The accompanying table shows the trade weights resulting from these changes. Neither the conversion of Slovenia from a trading partner to a member of the euro area, nor the addition of three more trading partners, has had a significant impact on the weights. The most notable development is the increase in the coverage of the EER-24 (compared with that of the former EER-23 reference group) from 75% to 77% of euro area external trade in manufacturing goods. The coverage of the EER-44 has also increased from 90% to 93%. The United States and the United Kingdom continue to rank as the main trading partners of the euro area followed by Japan and China.

Real EERs are available for the EER-12 and EER-24 groups and are calculated using consumer price indices (CPI), producer price indices (PPI), a GDP deflator (GDPD), unit labour costs in the total economy (ULCT) and unit labour costs in manufacturing (ULCM). For the EER-44, the consumer price index remains the only deflator applied, owing to a lack of timely and comparable data on other price and cost measures for some of the countries included in this broadest group.

The nominal EER indicators are available daily for the EER-12 and EER-24, as they constitute a summary measure of short-term foreign exchange market developments. All other indicators are available monthly, with the exception of the real EER indices based on ULCT, ULCM and GDPD, which are only available at a quarterly frequency.

The EER-24 and EER-44, which are available from January 1993, will be the standard reference series in ECB publications and are published in Section 8.1 of the Euro area statistics section of the ECB Monthly Bulletin and in the Statistics Pocket Book. The EER-24 is also published on a daily basis on the ECB's website (see http://www.ecb.int/stats/exchange/effective/html/index.en.html).

Weights in the ECB's EER-12, EER-24 and EER-44 indices[1)]

(percentages; overall weights based on 1999-2001 manufacturing trade data)

Trading partners	EER-12	EER-24	EER-44
EER-44 group			**100.0**
EER-24 group			**82.5**
EER-12 group	**100.0**	**80.8**	**66.7**
Australia	1.1	0.9	0.7
Canada	2.5	2.0	1.6
Denmark	3.3	2.6	2.2
Hong Kong	2.7	2.2	1.8
Japan	12.8	10.4	8.6
Norway	1.7	1.3	1.1
Singapore	2.3	1.9	1.6
South Korea	4.1	3.3	2.7
Sweden	6.0	4.8	4.0
Switzerland	8.4	6.8	5.6
United Kingdom	25.8	20.8	17.2
United States	29.4	23.7	19.6
Additional countries in the EER-24 group		**19.2**	**15.8**
Bulgaria		0.4	0.3
China		7.2	5.9
Cyprus		0.1	0.1
Czech Republic		2.8	2.3
Estonia		0.2	0.2
Hungary		2.7	2.2
Latvia		0.1	0.1
Lithuania		0.2	0.2
Malta		0.1	0.1
Poland		3.3	2.7
Romania		1.0	0.8
Slovakia		1.0	0.8
Additional countries in the EER-44 group			**17.5**
Algeria			0.3
Argentina			0.4
Brazil			1.3
Chile			0.3
Croatia			0.4
Iceland			0.1
India			1.3
Indonesia			0.7
Israel			1.1
Malaysia			1.1
Mexico			1.2
Morocco			0.6
New Zealand			0.1
Philippines			0.5
Russia			1.7
South Africa			0.8
Taiwan			2.3
Thailand			1.0
Turkey			2.1
Venezuela			0.2

Source: ECB calculations.
1) The EER-12, EER-24 and EER-44 account for 62%, 77% and 93% of total extra-euro area manufacturing trade respectively.

Chart A Euro nominal effective exchange rates

(monthly data; index: Q1 1999 = 100)

Source: ECB.
Note: The last observation refers to February 2007.

Chart B Euro real effective exchange rates [1)]

(monthly data; index: Q1 1999 = 100)

Source: ECB.
Note: The last observation refers to February 2007.
1) Deflated using HICP for EU countries and CPI for other countries.

Chart A shows the evolution of the three nominal EERs of the euro. Overall, over the sample period the indices exhibited a broad co-movement, which has become more accentuated since the late 1990s, especially in the EER-12 and EER-24 indices. In more recent years, all the indices have shown a rapid appreciation from the trough reached by the euro in 2000 and a broad stabilisation, amid some fluctuations, since 2004. The discrepancy between the EER-12 and the broader indices in the first half of the 1990s reflects the devaluation of the Chinese renminbi in 1994 and the prolonged depreciation of the Hungarian forint and the Polish zloty against major euro legacy currencies, as these countries are not included in the EER-12. The nominal EER-44 index is further influenced by trading partners not included in the EER-24, such as Brazil, Indonesia and Mexico. Since the launch of the euro, the EER-12 and EER-24 have largely moved together, while the broader EER-44 index has appreciated more strongly. This has mainly been due to the strong nominal appreciation of the euro vis-à-vis the currencies of Argentina, Brazil and, to a lesser extent, Mexico.

Chart B, which depicts the real effective exchange rates of the euro, indicates that once the relative CPI inflation rates between the euro area and the rest of the world are taken into account, the three euro EERs have moved much more closely together than the corresponding nominal rates. Overall, the EER-24 and EER-44 have moved more closely together in real terms, increasing by about 5% and 4% respectively since the first quarter of 1999, while the narrowest effective exchange rate, the EER-12, appreciated by almost 10% in the same period. Besides developments in nominal exchange rates, this mainly reflects lower inflation rates in the countries included in the EER-12 index than in the countries in the EER-24 and EER-44 indices.