**ECONOMIC
AND MONETARY
DEVELOPMENTS**

The external
environment
of the euro area

Box I

THE EFFECTIVE EXCHANGE RATES OF THE EURO – REVISED TRADE WEIGHTS IN THE LIGHT OF GLOBAL ECONOMIC INTEGRATION

In recent years the geographical composition of euro area trade has undergone significant change, which is also reflected in the trade weights of the effective exchange rates (EERs) of the euro calculated by the ECB. In particular, the growing importance of emerging economies and the steadily intensifying integration of economies in Europe are increasingly shaping the trade linkages of the euro area. This box summarises these developments in the context of the recent update of the trade weights underlying the euro area's EERs.

The trade weights are revised and updated every three years to provide an accurate picture of trade patterns. Owing to limitations of data availability, the calculations occur with a time lag. In the most recent update carried out in January 2012, trade weights were added for the period from 2007 to 2009.[1]

The EERs are constructed by applying the weights to the bilateral nominal exchange rates of the euro against the currencies of selected trading partners. Real EER indices are derived by adjusting the nominal indices for relative price and cost developments between the euro area and its trading partners.[2] The trade weights combine information on exports and imports, excluding intra-euro area trade. Import weights consist of each trading partner's simple share in total euro area imports. Export weights, on the other hand, are double-weighted to account for "third-market effects". Specifically, they capture the effect of competition faced by euro area exporters in foreign markets not only from domestic producers, but also from exporters from third countries. The overall weight of each partner country is obtained as the weighted average of the export and import weights.[3]

The table presents the trade weights over all available periods for each of the countries included in the broad EER-40 (listed in the order of their average trade weight over all periods).[4] Advanced economies continue to account for a sizeable share of euro area trade, although the weight of the largest advanced economies in the EER-40 of the euro has been declining over time. Between 1995 and 2009 the two individual countries with the largest weights were, on average, the United States and the United Kingdom, which together accounted for almost a third of the EER-40. These countries, together with Japan, were also the three largest individual trading partners of the euro area in the period 1995-2000, with a combined weight of, on average, around 45% of the EER-40 basket. However, for the period 2007-09 their combined share in the basket of the EER-40 declined to around 30%.

The decrease in the share of the largest advanced economies in the EER-40 basket is not due to a decline in trade with the euro area, but instead reflects the rising importance of other regions, in particular emerging market economies, in the global economy. As a consequence, the combined weight of trading partners from emerging Asia in the EER-40 rose from below 19% in the period 1995-97 to above 27% in the period 2007-09. This rise resulted mainly from a substantial increase in the weight of China, which became the euro area's largest individual trading partner in the period 2007-09. The share of other emerging Asian economies has remained broadly unchanged over time, as can be seen in Chart A, which presents developments in the trade weights of major regions of the world economy, as well as of some of the euro area's largest individual trading partners.

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1 The weights are based on bilateral trade data on manufactured goods, as defined in Sections 5-8 of the Standard International Trade Classification for the periods 1995-97, 1998-2000, 2001-03, 2004-06 and 2007-09. Manufacturing goods are chosen as the trade basis for the weights as these are typically most responsive to changes in competitiveness.
2 The real EERs are calculated on the basis of consumer price indices, producer price indices, GDP deflators and unit labour cost indices – the latter for the total economy as well as the manufacturing sector.
3 See Buldorini, L., Makrydakis, S. and Thimann, C., "The effective exchange rates of the euro", *Occasional Paper Series*, No 2, ECB, 2002.
4 The ECB publishes nominal and real EERs of the euro against three groups of trading partners: the EER-12, comprising Australia, Canada, Denmark, Hong Kong, Japan, Norway, Singapore, South Korea, Sweden, Switzerland, the United Kingdom and the United States; the EER-20, consisting of the EER-12 plus China and the seven non-euro area EU Member States not included in the EER-12; and the EER-40, comprising the EER-20 plus 20 additional relevant trading partners (see the table for the complete list). The trade weights are calculated for the EER-40 group of trading partners. For the EER-12 and EER-20 groups, they are obtained by proportionally rescaling the corresponding countries' trade weights in such a way that they add up to 100.

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Trade weights for the EER-40

(percentages)

| Country	Period					
	1995-1997	1998-2000	2001-2003	2004-2006	2007-2009	Average
United States	16.9	19.4	18.6	15.5	13.5	16.8
United Kingdom	18.3	17.7	16.7	14.2	11.9	15.8
China	4.4	5.3	7.6	11.4	15.0	8.7
Japan	9.7	8.8	7.6	6.7	5.8	7.7
Switzerland	6.6	5.9	5.7	5.2	5.2	5.7
Sweden	4.7	4.3	3.8	4.0	3.7	4.1
Poland	2.4	2.8	3.3	3.9	4.9	3.4
Czech Republic	2.2	2.4	3.0	3.4	4.0	3.0
Korea	2.9	2.7	2.8	3.2	3.1	2.9
Turkey	2.1	2.2	2.3	3.0	3.1	2.6
Russia	2.4	1.8	2.2	2.9	3.4	2.6
Denmark	2.6	2.3	2.3	2.2	2.1	2.3
Hungary	1.5	2.2	2.5	2.6	2.6	2.3
Taiwan	2.3	2.4	2.1	1.8	1.4	2.0
India	1.5	1.3	1.5	1.8	2.1	1.6
Hong Kong	2.0	1.7	1.5	1.5	1.3	1.6
Canada	1.5	1.6	1.6	1.4	1.3	1.5
Singapore	1.8	1.6	1.4	1.4	1.2	1.5
Brazil	1.5	1.4	1.2	1.2	1.4	1.3
Mexico	0.9	1.2	1.3	1.2	1.2	1.2
Malaysia	1.2	1.1	1.2	1.1	1.0	1.1
Norway	1.3	1.2	1.0	1.1	1.1	1.1
Romania	0.7	0.8	1.1	1.4	1.6	1.1
Thailand	1.2	1.0	1.0	1.0	1.1	1.1
South Africa	0.9	0.9	0.9	1.0	1.0	0.9
Israel	1.0	1.0	0.9	0.7	0.7	0.9
Australia	0.8	0.8	0.8	0.8	0.8	0.8
Indonesia	1.0	0.8	0.7	0.6	0.6	0.7
Morocco	0.6	0.6	0.6	0.6	0.6	0.6
Croatia	0.5	0.4	0.5	0.5	0.5	0.5
Philippines	0.4	0.5	0.5	0.4	0.3	0.4
Bulgaria	0.3	0.3	0.4	0.4	0.5	0.4
Argentina	0.6	0.5	0.3	0.3	0.3	0.4
Chile	0.3	0.3	0.3	0.4	0.4	0.4
Algeria	0.3	0.3	0.3	0.3	0.4	0.3
Lithuania	0.2	0.2	0.2	0.3	0.3	0.2
Venezuela	0.2	0.2	0.2	0.2	0.2	0.2
Latvia	0.1	0.1	0.1	0.2	0.2	0.1
New Zealand	0.1	0.1	0.1	0.1	0.1	0.1
Iceland	0.0	0.1	0.1	0.1	0.1	0.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: ECB.
Note: Trade weights for the EER-20 and EER-12 can be obtained by proportionally rescaling the corresponding countries' trade weights in such a way that they add up to 100.

The historically largest group of trading partners in terms of their combined weight in the EER 40 of the euro consists of "other European economies",[5] the weight of which rose steadily from slightly above 25% in the period 1995-97 to above 30% in the period 2007-09. The growing importance of the other European economies as major trading partners reflects the geographical proximity and increasing economic integration within Europe. In fact, the increase in the weight
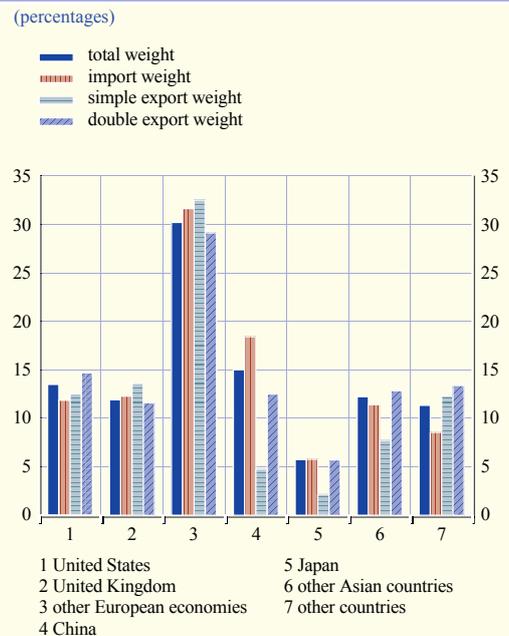
5   Other European economies as referred to in this box include Croatia, Iceland, Norway, Russia, Switzerland and the non-euro area EU Member States, with the exception of the United Kingdom; other Asian countries include Hong Kong, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand; other countries include Algeria, Argentina, Australia, Brazil, Canada, Chile, Israel, Mexico, Morocco, New Zealand, South Africa, Turkey and Venezuela.

Chart A Evolution of trade weights in the EER-40

(percentages)

United States
United Kingdom
other European economies
China
Japan
other Asian countries
other countries
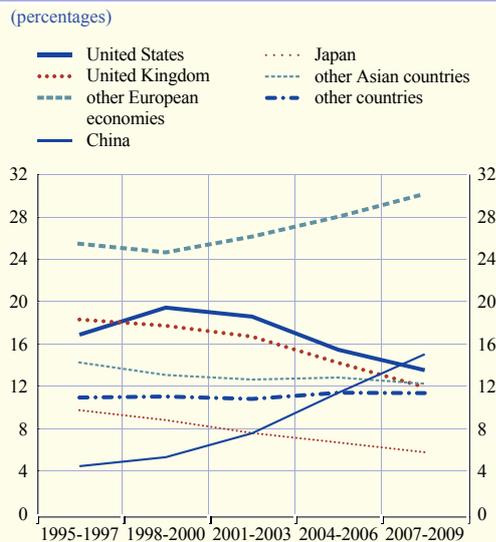
Source: ECB.
Note: Country groups are defined in footnote 5.

Chart B Comparison of trade weights for the EER-40 group of trading partners

(percentages)

total weight
import weight
simple export weight
double export weight

1 United States
2 United Kingdom
3 other European economies
4 China
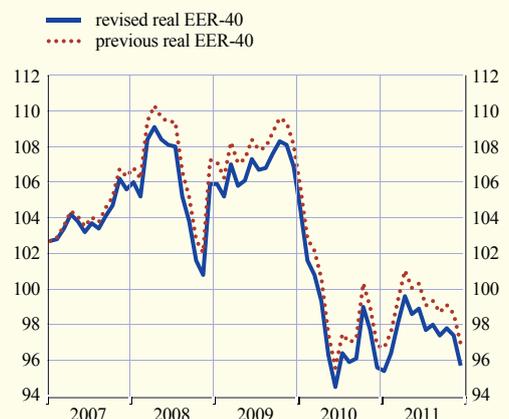5 Japan
6 other Asian countries
7 other countries

Source: ECB.
Note: Country groups are defined in footnote 5.

of this group of countries is largely accounted for by non-euro area Member States that have joined the European Union since 2004. Since the period 1995-97 their combined weight has doubled to above 14% of the EER-40 basket, which corresponds to more than eight times their combined share in world GDP and thus underlines the particular importance of trade linkages between these countries and the euro area.

Geographical characteristics are also reflected in the composition of trade weights in terms of the contribution of import and export weights. Chart B shows a comparison of total trade weights with import weights, as well as with the double export weights and the simple export weights of the euro area's major trading partners. In the case of major advanced and other European economies, the simple export weight generally exceeds the import weight on account of the bilateral trade surpluses of the euro area with these countries. The opposite holds true for economies in emerging Asia with which the euro area has an aggregate bilateral trade deficit, as a reflection of the strong export orientation of these economies. At the same time, accounting for third-market effects leads

Chart C Previous and revised real EER-40
(CPI deflated; index 100 = QI 1999)

revised real EER-40
previous real EER-40

Source: ECB.

to some adjustment in the overall trade weights through the double export weights. In particular, in the case of China, as well as Japan and other Asian economies, competition between euro area and Asian exporters in third countries results in a significant increase in the overall trade weight beyond the levels implied by direct export linkages.

The recent update of the trade weights leads to a revision of the nominal and real EERs of the euro from 2007. Chart C shows the previous and the revised real EER-40 indices (deflated by consumer prices). In December 2011 the revised EER-40 had a value of 95.7 and thus stood 6.8% below its level at the beginning of 2007. Based on the previous weighting scheme, the index would have reached a value of 96.9 and would thus have been 5.6% lower than in January 2007. The update of the trade weights therefore reveals that the increase in competitiveness of the euro area owing to the real depreciation of the single currency since 2007 was slightly more pronounced if changes in the geographical composition of euro area trade are taken into account.