

Box 5

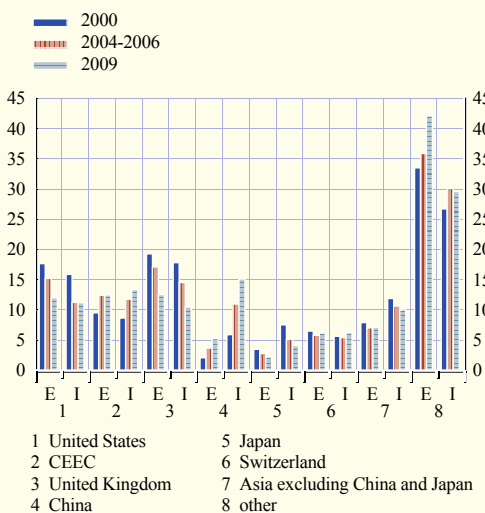
INTERNATIONAL TRADE DEVELOPMENTS AND REVISION OF THE EFFECTIVE EXCHANGE RATES OF THE EURO

The geographical structure of euro area trade has undergone significant changes over the past decade, with the weight of emerging economies increasing progressively. This box briefly discusses these developments and introduces a revised set of effective exchange rates (EERs) of the euro that result from an update of the underlying trade weights.

The main development in extra-euro area geographical trade patterns in the last decade has been the progressive increase in the share of China and of the central and eastern European countries (CEECs)¹ in the EU, paralleled by a gradual decrease in the shares of advanced economies such as the United States, the United Kingdom, Japan and Switzerland. The increase in the share of China since the beginning of the decade has been especially evident in euro area imports, while the CEECs have seen their shares in exports and imports increase at broadly similar rates (see Chart A). The EER weights are updated regularly to reflect these developments; however, they can only be computed with a lag of a few years owing to limitations in data availability, so that the most recent set of weights is based on the average trade values for 2004-06. Simple value shares of total trade for the available months of 2009 show that the overall trend of a progressive increase in the trade shares of

Chart A Shares of various countries and regions in euro area imports and exports

(shares based on values in euro; percentages)



Source: Eurostat.
Note: E = exports; I = imports.

¹ These countries are Bulgaria, the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland and Romania.

emerging markets at the expense of advanced economies has continued: China's share of euro area trade continues to grow, while the United Kingdom and Japan are seeing their shares reduced in both euro area imports and exports. The share of the United States in euro area imports has remained relatively stable since 2004-06, while its share in exports has fallen further. In addition, the share of the rest of the world as a euro area export market increased significantly in 2009, reflecting, among other things, the increasing importance of oil-exporting countries (see Chart A).

The ECB computes and publishes nominal and real EERs of the euro against three groups of trading partners: the EER-12, for a group consisting of 12 trading partners of the euro

area; the EER-21, comprising the EER-12 plus China and the eight non-euro area EU Member States not included in the EER-12; and the EER-41, comprising the EER-21 plus 20 additional relevant trading partners (see Table A for the complete lists).

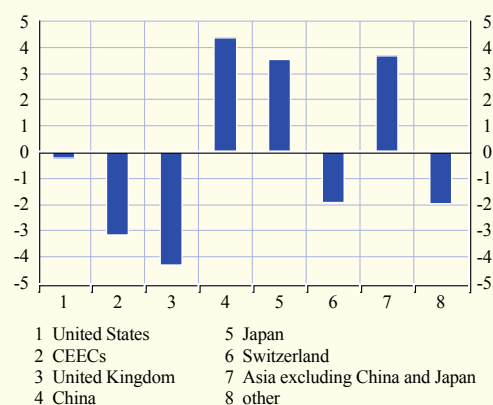
The EERs are constructed using moving weights, calculated on the basis of manufacturing trade data,² which in 2009 accounted for around 82% of total exports and 66% of total imports. Manufacturing was chosen as the trade basis for the weights, in accordance with common practice, because i) such trade is typically responsive to changes in competitiveness and ii) relatively good data are available for almost all industrial countries. The revised EER weights reflect the changes in the composition of euro area trade outlined above: for example, compared with the weights used for constructing the index up to 1997, the 2004-06 weights of the United Kingdom and Japan have decreased in all groups of trading partners. The weight of the United States has also decreased, except in the narrowest group of partner countries (see Table A). China has emerged as the third largest trading partner of the euro area, after the United States and the United Kingdom. As a group, however, the eight EU CEECs have a larger weight than China.³

The EERs are constructed by applying the weights to the bilateral nominal exchange rates of the euro against the currencies of selected trading partners. The weights combine information on imports and exports and are designed to capture not only the direct bilateral flows, but also the effect of competition from trading partners faced by euro area exporters in third markets.

The difference between the simple export weights and the double export weights illustrates the importance of the third-market competition effect. Most strikingly, this competition effect

Chart B Impact of third-market effect on the 2004-06 EER-41 export weights of selected country groups

(percentage points)



Source: ECB.

² The recently updated EERs are calculated on the basis of manufacturing trade data referring to four periods: averages for 1995-97 are used in the construction of the series up to 1997; data from 1998-2000 and 2001-03 are used in the corresponding periods; and weights based on data for 2004-06 are used in the calculation of the series from 2004 to the current period. The trade weights used to construct euro EER indices were previously updated once, in 2004 (for details, see Box 10 of the September 2004 issue of the Monthly Bulletin). The two sets of weights calculated at that time were based on manufacturing trade data for the periods 1995-97 (used for constructing the indices up to 1999) and 1999-2001 (used to calculate the series from 1999 onwards).

³ For more details, see the press release published on 15 December 2009 and the methodological note referred to in the press release.

increases the weights of Asian trading partners in the EER. For China and the rest of Asia, the increase is 4.4 and 3.7 percentage points respectively. By contrast, the weights of European trading partners are reduced and that of the United States is largely unaffected (see Chart B). This means that, for example, when only direct trade flows are considered, the export weight of

Table A Updated trade weights used in the calculation of the EERs of the euro

Partner countries	EER-12				EER-21				EER-41			
	1995-1997 ¹⁾	1998-2000	2001-2003	2004-2006	1995-1997 ¹⁾	1998-2000	2001-2003	2004-2006	1995-1997 ¹⁾	1998-2000	2001-2003	2004-2006
EER-41									100.0	100.0	100.0	100.0
EER-21					100.0	100.0	100.0	100.0	81.1	82.0	81.8	80.6
EER-12	100.0	100.0	100.0	100.0	85.5	83.6	77.9	71.3	69.3	68.4	63.6	57.2
Australia	1.1	1.2	1.3	1.5	0.9	0.9	1.0	1.0	0.8	0.7	0.8	0.8
Canada	2.1	2.4	2.6	2.5	1.8	2.0	2.0	1.7	1.5	1.6	1.6	1.3
Denmark	3.7	3.4	3.5	3.7	3.1	2.8	2.8	2.7	2.5	2.3	2.2	2.2
Hong Kong	3.0	2.6	2.6	3.1	2.6	2.1	1.9	2.0	2.1	1.7	1.5	1.6
Japan	14.1	12.8	11.8	11.6	12.0	10.8	9.2	8.3	9.8	8.9	7.6	6.7
Norway	1.9	1.8	1.7	1.9	1.6	1.5	1.3	1.3	1.3	1.2	1.0	1.0
Singapore	2.6	2.3	2.2	2.5	2.2	1.9	1.7	1.8	1.8	1.6	1.4	1.4
South Korea	4.1	3.9	4.4	5.4	3.5	3.3	3.4	3.9	2.8	2.7	2.7	3.2
Sweden	6.7	6.1	5.7	6.5	5.7	5.2	4.5	4.8	4.7	4.3	3.8	3.9
Switzerland	9.4	8.6	8.6	8.7	8.1	7.2	6.9	6.4	6.5	6.0	5.7	5.3
United Kingdom	26.4	25.7	25.9	24.7	22.6	21.6	20.3	17.8	18.3	17.8	16.7	14.3
United States	24.9	29.3	29.8	27.9	21.3	24.3	22.9	19.6	17.2	19.8	18.6	15.6
Additional countries in												
EER-21					14.5	16.4	22.1	28.7	11.8	13.6	18.3	23.4
Bulgaria					0.4	0.3	0.5	0.6	0.3	0.3	0.4	0.4
Czech Republic					2.7	2.6	3.6	4.1	2.2	2.2	3.0	3.4
Estonia					0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2
Hungary					1.9	2.3	3.0	3.1	1.6	1.9	2.5	2.5
Latvia					0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
Lithuania					0.2	0.2	0.3	0.3	0.1	0.2	0.2	0.3
Poland					2.9	3.4	4.0	4.9	2.4	2.7	3.3	3.9
Romania					0.9	1.0	1.4	1.7	0.7	0.8	1.1	1.4
China					5.3	6.3	9.1	13.6	4.3	5.3	7.5	11.1
Additional countries in												
EER-41									18.9	18.0	18.2	19.4
Algeria									0.3	0.3	0.3	0.4
Argentina									0.5	0.5	0.3	0.3
Brazil									1.5	1.4	1.2	1.2
Chile									0.3	0.3	0.3	0.4
Croatia									0.5	0.4	0.5	0.5
Iceland									0.0	0.1	0.1	0.1
India									1.4	1.3	1.5	1.8
Indonesia									0.9	0.8	0.7	0.6
Israel									1.1	1.0	0.9	0.7
Malaysia									1.2	1.1	1.2	1.1
Mexico									0.8	1.2	1.3	1.2
Morocco									0.6	0.6	0.6	0.6
New Zealand									0.1	0.1	0.1	0.1
Philippines									0.4	0.5	0.5	0.4
Russia									2.2	1.9	2.2	2.9
South Africa									1.0	0.8	0.9	1.0
Taiwan									2.2	2.3	2.0	1.8
Thailand									1.2	1.0	1.0	1.0
Turkey									2.1	2.3	2.3	3.0
Venezuela									0.2	0.2	0.2	0.2

1) Non-revised.

China in the EER-41 index is 4.4% instead of 8.8%. Hence, considering the importance of China also as a competitor in non-euro area markets doubles its weight in the index.

The update of the weights shifts the EER indices computed vis-à-vis broader groups of trading partners very slightly downwards in nominal terms and somewhat more noticeably in real terms.⁴ In December 2009 the updated and the previously published nominal EER-41 stood 26% and 28% respectively above their 1999 average levels (see Chart C).

Looking at real EERs, which are more appropriate for gauging price and cost competitiveness, a difference between

developments in the revised indices and those in the earlier indices is noticeable for the broader measures based on 21 and 41 trading partners. From 1999 to December 2009, the updated real EER-41 of the euro deflated by consumer prices appreciated by 13%. Using the previous weighting structure, this appreciation would have been 17% (see Chart C).

Against the background of the rather dynamic evolution of geographical trade patterns in the past decade, the real EERs of the euro better reflect current developments in euro area price and cost competitiveness following the weight update.

⁴ Real EER indices are derived by adjusting the nominal indices for relative price and cost developments between the euro area and its trading partners. They 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 for the manufacturing sector.

Chart C Previous and revised real EERs of the euro against the broadest group of trading partners

(index: 1999 Q1 = 100; monthly data)



Source: ECB.
Note: Deflated on the basis of the CPI.