

Box 5

REAL EFFECTIVE EXCHANGE RATE DEVELOPMENTS FROM A EURO AREA AND FROM A COUNTRY PERSPECTIVE

This box examines the differences in the magnitude of the rise in the euro real effective exchange rate (EER) compared with the national competitiveness indicators (NCIs) of individual euro area countries since 2002, and the diverse developments in the NCIs themselves across euro area countries. NCIs use the same methodological framework as real EERs and have been designed to facilitate the comparison of developments in the international price competitiveness of each euro area national economy.¹

The analysis suggests that the more subdued rise in the NCIs compared with the increase in the euro real EER since 2002 is due to the inclusion of intra-euro area trade in the NCIs. The diversity in the changes in NCIs across euro area countries stems mainly from three factors: first, the share of extra-euro area trade varies across countries; second, inflation differentials within the euro area affect the evolution of the NCIs; and third, patterns of extra-euro area trade are different for each country.

Over the past two years, the euro has experienced a strong appreciation against the currencies of major trading partners. Against the US dollar (and some Asian currencies linked to it) this appreciation has been rather pronounced, while it has been less substantial against the Japanese yen, the pound sterling and other European currencies. Overall, these developments translated into an increase in the nominal euro EER of almost 20% between the first quarter of 2002 and the first quarter of 2004. In real terms – based on developments in relative consumer prices – the euro real EER rose by more than 21% over the same period, reflecting deflationary pressures faced by some Asian trading partners and subdued inflation in several other industrialised countries. This appreciation can be partly construed as a recovery from historically very low levels. Nonetheless, it resulted in a loss in international price competitiveness of euro area companies. From a country perspective, NCIs rose less markedly than the euro real EER. In most countries the increase amounted to less than 10% between the first quarter of 2002 and the first quarter of 2004 (see table). Moreover, changes in the NCIs over this period were rather diverse within the euro area, ranging from 4.6% for Austria to 16.2% for Ireland.

The stronger rise in the euro real EER compared with the NCIs of individual euro area countries can be mainly attributed to the fact that the NCIs take intra-euro area trade into account. Therefore, a decomposition of each NCI into an intra and an extra-euro area sub-index facilitates the comparison between the euro real EER and the NCIs. The intra-euro area NCIs include as competitors only euro area countries, while the extra-euro area NCIs include as competitors only 12 major trading partners of the euro area. As exchange rate fluctuations were eliminated among euro area countries with the introduction of the euro, the intra-euro area sub-indices change only very gradually in line with inflation differentials between euro area countries. Accordingly, the table suggests that changes in the intra-euro area component of the NCIs were rather subdued, while the magnitude of the change in the extra-euro area component of the NCIs was, on the whole, more similar to the rise in the euro real EER. For each country, the overall NCI is a weighted average of the two sub-indices. As a large share of external trade

¹ For more detailed information on the computation of the effective exchange rate of the euro and national competitiveness indicators, see Buldorini, L., Makrydakis, S., Thimann, C. (2002), “The effective exchange rates of the euro”, ECB Occasional Paper No. 2.

Table Changes in competitiveness as measured by NCIs and the euro real EER between 2002 Q1 and 2004 Q1^{1), 2)}

(percentages)

	Euro real EER ³⁾	NCIs for					
		Belgium	Germany	Greece	Spain	France	Ireland
Total	-	5.9	7.3	8.3	8.5	8.8	16.2
Intra-euro area component	-	-1.0	-2.2	2.7	2.1	0.6	3.5
Extra-euro area component	21.3	19.5	19.0	23.0	24.5	22.9	24.7
Memo item							
<i>Share of intra-euro area trade in the index⁴⁾</i>							
		64.4	53.2	69.6	68.9	60.9	38.8

	Euro real EER ³⁾	NCIs for					
		Italy	Luxembourg	Netherlands	Austria	Portugal	Finland
Total	-	9.7	7.1	8.6	4.6	6.7	7.3
Intra-euro area component	-	1.5	2.5	0.8	0.0	2.0	-1.2
Extra-euro area component	21.3	23.7	25.4	21.3	18.5	20.6	15.2
Memo item							
<i>Share of intra-euro area trade in the index⁴⁾</i>							
		61.0	78.0	60.1	74.4	73.8	46.6

Source: ECB calculations.

1) A negative (positive) number signifies an increase (decrease) in price competitiveness.

2) The table should be read in columns, e.g. German price competitiveness increased by 2.2% vis-à-vis the rest of the euro area and decreased by 19.0% vis-à-vis the rest of the world. In terms of total external trade, Germany's price competitiveness decreased by 7.3%.

3) The real EER (CPI-deflated) of the euro is used.

4) Shares are measured in overall trade terms, i.e. including third-market effects. See Table IV.1 in Buldorini et al. (2002), using manufacturing trade data (average 1995-1997).

of individual euro area countries is with other euro area countries, the changes in the intra-euro area sub-indices have a strong effect on the developments in overall NCIs.

In more detail, the average loss in national competitiveness as measured by the overall NCI indices was 8.2% (compared with 21.3% for the euro area). While most countries experienced a change in competitiveness broadly around this average, some diversity in national competitiveness developments remains. In this context, the respective shares of intra and extra-euro area trade as well as inflation differentials between euro area countries are two important elements that could account for this diversity.

Specifically, countries having a high share of intra-euro area trade and/or a negative inflation differential faced a relatively smaller rise in their NCIs (for instance Austria and Belgium). By contrast, countries with a high share of extra-euro area trade and/or a positive inflation differential with respect to the rest of the euro area experienced a relatively stronger rise in their NCIs (for example Ireland and Italy). With regard to the intra-euro area component of the NCIs, inflation differentials are the only source of diversity, which may partly reflect an adjustment process of cross-country differences in real variables (such as productivity growth).² Accordingly, countries with relatively high inflation rates experienced a more pronounced rise in their NCIs, while countries with subdued inflation witnessed more moderate increases in

2 For a comprehensive discussion of inflation differentials in the euro area, see "Inflation differentials in the euro area: potential causes and policy implications", ECB September 2003.

their NCIs. Finally, the trade structure of euro area countries impacted on the diversity of NCI developments, as reflected in the extra-euro area component of these indices. The euro's strong appreciation against the US dollar and some Asian currencies over the past two years has translated into a stronger rise in the extra-euro area NCIs of those countries that are particularly exposed to trade with the United States and the Asian economies. For example, this factor partly explains the relatively higher rise of the Irish NCI, as Ireland's trade links with the United States are much stronger than those of the euro area as a whole. By contrast, the more subdued increase in the NCIs of Portugal and Austria, for instance, is partly explained by the smaller exposure of those countries to trade with the United States compared with the euro area.

In summary, comparing the overall NCIs with the euro area real EER suggests that the single currency has contributed to mitigating the effect of sharp exchange rate movements on the competitive position of individual euro area countries.