Exchange rate index update for Austria shows lower effective appreciation than previously measured

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This article reports on the most recent update of Austria's effective exchange rate indices, which serve to aggregate data on bilateral exchange rates and relative prices or costs into indicators of Austria's short- to medium-term international competitive position. As before, the weighting scheme builds on bilateral trade data for Austria's 56 most important trading partners and a three-year averaging period, which we were able to move forward to the period 2013–2015. Having recalculated existing observations from January 2013 onward, we find confirmation for the medium-term worsening of Austria's competitive position, but in a less pronounced form than suggested by the previous weighting scheme. On the tail end of the curve, the COVID-19 crisis in general and short-time work subsidies in particular have distorted several indicators in 2020 and 2021. With regard to the geographical focus of Austria's international trade relations, we observe a shift away from the large EU economies towards the USA and China, plus a weaker shift from Northeastern Europe towards Eastern Europe and Turkey. Given the economic relevance of tourism for Austria, we newly created a real effective exchange rate for the tourism industry. In this segment of the economy, we see a more pronounced appreciation than in the service sector as a whole from 2015 onward, which would normally imply a decline in tourism services output. That Austria's tourism industry clearly continued to thrive indicates that the appreciation coincided with an upward shift of prices and supply toward higher quality segments.

For the purpose of measuring "the" exchange rate of the euro for Austria, it is necessary to combine the currencies of other countries into some sort of composite currency that reflects the importance of trade with these countries. This is what the effective exchange rate for Austria (compiled and re-updated by the Oesterreichische Nationalbank, OeNB, and WIFO, the Austrian Institute of Economic Research) does: it is a trade-weighted average value, expressed in index number form, of a basket of other currencies – like the basket of goods and services for the consumer prices index. A rising exchange rate index implies appreciation and thus a loss of competitiveness; a falling index implies depreciation and hence competitiveness gains. Austria's nominal effective exchange rate index aggregates the bilateral exchange rates between the euro and the currencies of Austria's 56 biggest trading partners, including 38 non-euro area countries. By adding an extra layer with relative price or cost movements for Austria and each individual trading partner to the nominal exchange rate index, we arrive at the real effective exchange rate index as an indicator of Austria's international price or cost competitiveness.

Recent examples for the practical use of effective exchange rate indices in analyzing the response of small open economies to exchange rate fluctuations are Fauceglia et al. (2018) and Dao et al. (2021). The real effective exchange rate can also be used to evaluate the transmission of foreign monetary and financial shocks to the tradable goods and services sectors of the economy. In sum, accurate measures of the effective exchange rate are essential input for market participants as well as policymakers.

To avoid a plethora of incompatible effective exchange rate indices across the euro area, member countries committed themselves in 1999 to apply a harmonized methodology (Schmitz et al., 2012) and to revise their weighting schemes for trading partners at regular intervals. This ensures comparability and incorporates changing trading patterns. The Austrian indices were last revised by the OeNB and WIFO in 2017 (see Köhler-Töglhofer et al., 2017). Upon release of the 2018 set of OECD-TiVA input-output tables on bilateral foreign trade flows, we were able to move forward the three-year averaging period for adjusting the exchange rate weights from 2010–2012 to 2013–2015.

As outlined below, the new weights produce a less pronounced appreciation throughout the review period from 2013 to 2021, particularly for the nominal effective exchange rate. In terms of individual shifts, the trade weight of Germany was scaled down most, while the United States showed the most vigorous gain.

Besides, we broadened the range of real effective exchange rates by developing a novel indicator for the price competitiveness of the Austrian tourism industry, using relative prices for tourism-related services in the consumer price index. After all, the COVID-19 pandemic has highlighted the high dependency of Austria's economic output on a thriving tourism sector.

The tourism-specific real effective exchange rate is illustrative of the strengths and weaknesses of the real effective exchange rate as a measure of competitiveness. First, a trade-weighted scheme implicitly assumes that countries trade homogenous goods with a constant elasticity of substitution (Armington, 1969). If the degree of product differentiation among countries is high, e.g. skiing in the Alps versus visiting a tropical destination, the elasticity of substitution between imports from different regions varies and the fluctuations of different foreign currencies will have different effects on tourism demand. Second, the homogenous-goods assumption ignores different price and income elasticities of demand for individual goods (Klau and Fung, 2006). Effective exchange rate changes will affect the relative demand for, or the relative prices of, any pair of goods differently. If the countries covered by the weighting scheme have similar economic structures, the homogenous-goods assumption will not result in serious misjudgment; but if the scheme mixes countries with highly different export product structures, conclusions about the economic consequences of effective exchange rate appreciation become more uncertain.

In what follows, section 1 reviews the main characteristics of Austria's price/cost competitiveness indicators, which continue to apply. Section 2 addresses the recalculation of the country weights based on the trade relations prevailing during the period 2013–2015. Section 3 provides a snapshot of Austria's competitiveness position among other economies based on updated weights. Section 4 presents and analyzes the new real effective exchange rate for tourism services.

1 Main characteristics of competitiveness indicators for Austria remain unchanged

The competitiveness indicators for Austria published here are consistent with the harmonized Eurosystem methodology (Schmitz et al., 2012) and cover narrowly defined groups in the Standard International Trade Classification (SITC). Apart from the new averaging period for the country weights, running from 2013 through 2015, the conceptual framework continues to be the same as set out by Köhler-Töglhofer and Magerl (2013) and Hahn et al. (2001). Thus, the main characteristics of the harmonized competitiveness indicators compiled by the OeNB and WIFO are:

- The aggregate index is a trade-weighted average of four subindices calculated separately for manufactured goods, food and beverages, raw materials/energy products, and services. Introducing subindices alleviates possible violations of the homogeneity assumption underlying the single weighting structure and therefore allows for differences in the degree of substitutability (Turner and Van't dack, 1993). Moreover, this allows us to use a higher number of trading partners (56 instead of 43) covering 96% of total export flows.
- The index is based on geometric weighting, i.e. it represents the weighted geometric average of a basket of bilateral exchange rates, which yields the price or cost competitiveness indicator when adjusted for the respective relative price or cost indices.
- The individual country weights in the subindex for manufactured goods continue to be calculated on the basis of single (bilateral) import and double (multilateral) export weights. Double export weights are the method of choice to catch third-market effects, as they reflect both home and external market competition with individual trading partners (depicted in competition matrices; see table A2 in the annex). The drawback of double export weights is that they are more difficult to calculate,[2] less intuitive, and require data based on OECD-TiVA input-output tables with a larger publication lag.
- The index base period was left unchanged at the first-quarter average (arithmetic mean) of 1999 (i.e. 1999 Q1 = 100), which is the base period established by the harmonized Eurosystem framework.
- The new weights based on the 2013–2015 period apply to all observations beginning with January 2013. Earlier observations have been chain-linked to the new exchange rate indices.[3]

[2] *Double export weights are calculated based on complex competition matrices. These matrices also track goods sold on the domestic market that were manufactured domestically and thus compete with imports from other countries. While the ECB takes net manufacturing output (gross manufacturing output less intermediate consumption by manufacturers) as the starting point for building the competition matrix for manufactured goods, the OeNB and WIFO use gross manufacturing output. The rationale behind this approach is that the OeNB considers only gross manufacturing output to be consistent with the foreign trade statistics derived from gross flows. Moreover, intermediate goods and services do affect competitiveness. Domestic gross output is then adjusted for exports of manufactured goods net of re-exports. All other calculation steps are the same for both indicators. Given that gross manufacturing output exceeds net manufacturing output, the OeNB/WIFO indicator yields a higher share of domestic producers in a given market than the ECB indicator. See box 1 in Köhler-Töglhofer et al. (2006).*

[3] *The underlying country weights were fixed over the entire calculation period, starting from 1999, with revised trade weights established during successive rounds of revision (three-year averages for external trade shares). However, in some respects, the price competitiveness index was a chain-linked index even before the revision of 2013, as the index for the period up to 1999 remained based on the sample of trading partners and competing countries underlying the revision of 2001, using weights from the 1995–1997 period. This procedure was chosen because it ensured a more adequate reflection of Austria's trade relations, and thus of its competitiveness situation in the 1993–1998 period.*

- We use a range of deflators to calculate the Austrian competitiveness indicators: the HICP/CPI and its tourism-related components (COICOP division 11), producer prices (PPI), and unit labor costs (ULC) for the whole economy.[4] In practice, we use both the HICP/CPI and the PPI to calculate the subindex for the manufacturing sector, and both the HICP/CPI and ULC to calculate the sub-indices for the service sector and the index for the total economy.[5] Additionally, we use the components of the HICP/CPI related to tourism spending to deflate the subindex for the service sector. The subindices for food and beverages and for raw materials/energy are based solely on the HICP/CPI.

The HICP/CPI deflator is the most widely used variable for calculating real effective exchange rate indices and national competitiveness indicators. The key advantages of this variable are the timely availability and the international comparability of data. Yet, the goods baskets underlying consumer price indices include large numbers of nontradable goods, which makes them an imperfect proxy for changes in tradable goods prices. Hence the rationale for using producer prices with a greater focus on tradable goods and a smaller number of 26 trading partners, as internationally comparable producer prices are not available for all relevant trading partners of Austria. Using the components of the consumer price index related to tourism services in a separate version of the subindex on services also follows this idea because many services are nontraded while tourism services face competition from foreign destinations. The disaggregation into COICOP divisions is available for 43 countries. Finally, total unit labor costs relate to the economy as a whole including services, thus reflecting the development of wages and productivity in the tradable and the nontradable sector[6] – which is a drawback when it serves as a deflator for calculating the service sector subindex only. Moreover, internationally comparable total unit labor costs are not available for all relevant trading partners of Austria, limiting the respective calculation to 31 trading partners.[7]

The regular revisions of the harmonized competitiveness indicators generally provide room for adjustment in the sample of trading partners, reflecting changes in export patterns. Since the current sample of 56 countries covers 96% of Austrian exports, we left the number of countries unchanged. We continue to add the export shares of countries not included in the index to the weight of the USA, based on the assumption that these trade flows are invoiced in US dollars (Gopinath et al., 2020; see table A1 in the annex).

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[4] We use deflators provided by the OECD, the IMF and Eurostat. In case of missing data, we complete the time series with information from national statistical offices.

[5] Unit labor costs for the whole economy are defined as compensation per employee divided by real GDP per employed person. Until 2013, unit labor costs of the manufacturing sector were used as the deflator since they are a key determinant of manufactured goods sales prices and thus a key indicator of the short-term competitiveness of an economy. However, retaining this cost competitiveness indicator was not on option, as the manufacturing ULC data were derived from the OECD, which stopped updating the calculation of comparable data in 2012.

[6] For a thorough discussion of the merits and demerits of each deflator, see Köhler-Töglhofer (1999).

[7] For the full list of countries, see table A1 in the appendix. Unit labor costs are available for France, Belgium, Luxembourg, the Netherlands, Germany, Italy, Ireland, Portugal, Spain, Finland, Greece, Czechia, Denmark, Estonia, Hungary, Latvia, Lithuania, Poland, Sweden, Slovenia, Slovakia, Australia, Canada, Israel, Japan, New Zealand, Norway, South Korea, Switzerland, the UK and the USA. These 31 countries, however, account for more than 80% of domestic foreign trade in goods and services.

2 Country weights – comparatively stable ranking of Austria's trading partners

Austria as a small open economy with a high degree of openness gains multiple benefits from integration into a larger market (Oberhofer, 2019), although negative side effects on distributional and environmental issues may emerge and individual risk perceptions appear to deteriorate across border regions (Durand et al., 2017). Austria's integration into Europe has deepened and widened in recent decades, from accession to the European Economic Area in 1994 to the last round of EU enlargement by Croatia in 2013. Austria's accession to the EU lifted trade with other EU member countries against other comparable non-EU members by 46% over the 20 years following EU accession. Yet, more intensified trade relations were not confined to EU members and close neighbors within Central, Eastern and South Eastern European (CESEE)[8] countries. International value-added chains have become far more global since 2003, and increasing shares of a product's value added are now produced outside the region to which the country-of-completion belongs (Los et al., 2015). Although regional blocs like 'Factory Europe' are still important, a 'Factory World' rapidly emerged through the integration of countries in Southeast and East Asia into the world economy. After all, already by 1994 about one-third of world trade with the USA was due to transactions within multinational firms (Antràs, 2003). This share may decline, though, after the COVID-19 pandemic. Increased political tensions between the USA and China (Antràs, 2021) and the changing nature of recent shocks, which have been global and cross-sector rather than local and affecting only a few firms at a time (Baldwin and Freeman, 2021), provide strong incentives to create more resilient global supply chains. Lund et al. (2020) estimates that future supply disruptions may cost firms on average almost 45% of one year's profit over the course of a decade. Furthermore, about 40% of global supply chain executives consider nearshoring or regionalizing their supply chains (Lund, 2021).

The changes in Austria's regional trade structure are noteworthy particularly given the further opening of the Austrian economy in recent decades and continued efforts to integrate members of the European Single Market more seamlessly. Comparing the data for the current reference period 2013–2015 with the base period 1998–2000, we see a substantial decline in the weight of Austria's EU trading partners (by 7.3 percentage points to 65.3%) and other euro area countries (by 9.5 percentage points to 53.8%).

Ultimately, Austria would thus not appear to have gained measurable positive trade effects from the elimination of exchange rate uncertainty within the euro area (EA-19). The empirical evidence on the effects of exchange rate uncertainty on foreign trade is mixed. Clark et al. (2004) find a negative relation indicating that higher uncertainty lowers export flows, but their result is not robust against reasonable changes in the specification. Bahmani-Oskooee and Hegerty (2007) find inconclusive evidence for the relation between exchange rate volatility and export flows. Ambiguity can arise from the coincidence of deeper integration and the remaining exchange rate uncertainty with respect to non-euro members of the EU. For example, the weight of countries outside of the euro area but within the

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[8] Bulgaria, Bosnia-Herzegovina, Croatia, Cyprus, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Ukraine.

EU-27[9] was shown to have increased by 2.2 percentage points to 11.5%. In this case, positive effects from trade integration dominate the higher degree of exchange rate uncertainty with respect to trading partners outside the currency union. Similarly, the weight of CESEE countries grew by 4.6 percentage points to 14.7%. Thus, the potentially negative effect from increased exchange rate uncertainty has been more than compensated by stronger economic integration with Eastern Europe, favored by geographical proximity and the higher economic dynamism of this region. Furthermore, some Eastern European countries have managed to hold a stable exchange rate against the euro.

Southeast and East Asian countries also benefited from highly dynamic economic growth and the more intensified international division of labor. The trade weight of this group of countries moved up by 5.3 percentage points.

The regional relocation of foreign trade was mainly driven by two large economies: Germany and China. While Germany's country weight declined by 5.8 percentage points to 31.1% over the last 15 years, China gained 6 percentage points to 7.7% and now ranks second among the 56 countries, having even surpassed the USA (7.1%).

The long-run regional shift proceeded also in the short run between 2010–2012 and 2013–2015. Figure 1 shows a world map where all countries included in the weighting scheme are colored corresponding to the size of this short-run change in their weight. Dark green indicates countries with a visibly higher trade weight following the latest update of the index (USA, China, and Switzerland, with gains ranging from 0.4 to 1 percentage points), while dark blue indicates a substantial decline (Germany, France, Italy, with losses between 0.5 and 1.1 percentage points). Countries not included in the currency basket for the effective exchange rate are colored in white.

Figure 1

Austrian effective exchange rate index: short-run change in country weights (2013–2015 versus 2010–2012)
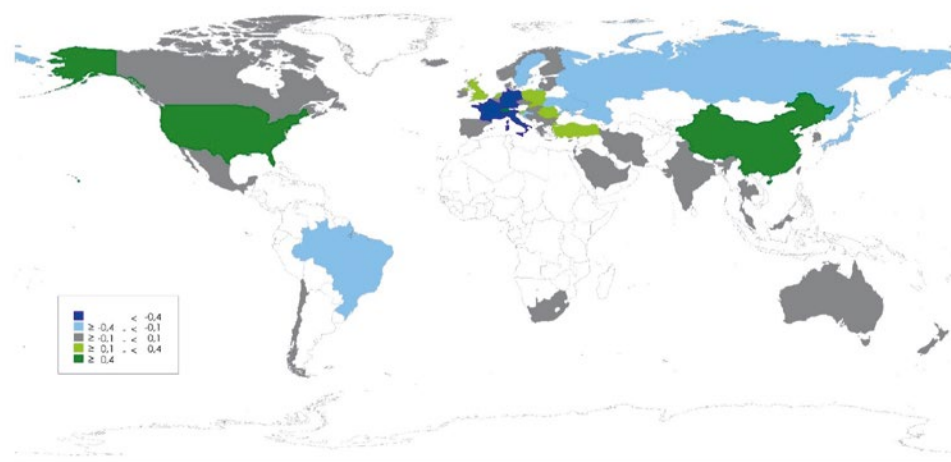
Source: OeNB/WIFO.

Note: Weights based on imports and exports of manufactured goods (double weighted).

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[9] *Bulgaria, Croatia, Czechia, Denmark, Hungary, Poland, Romania, and Sweden.*

Furthermore, trade relations with Brazil and countries in the northeast of Europe weakened, whereas they remained stable with neighboring countries like Czechia and Hungary (colored gray). Overall, the trading pattern shifted toward CESEE, the UK, the Netherlands, and Turkey. For detailed values for all weights, see table A1 in the appendix.

The calculation of the weights for the manufactured goods subindex is based on double export weights and therefore reflects direct bilateral trade flows as well as the indirect effects of competition from third countries on the destination markets of Austrian exports. For instance, Austrian exports to Germany face competition from German firms on the German market but also from firms located in other countries also exporting to Germany. The size of this effect can be seen by comparing single export weights with double export weights in chart 1. The axis in chart 1 has been cut at 10% to facilitate the comparison for countries with smaller weights. For exact numbers, including the full figures for Germany, see table A3 in the appendix.

For most of the countries, the difference between single export weights and double export weights is small. Exceptions include Germany, with a single export weight of 31.0% and a double export weight of 23.6% (the single highest measures of all countries included in the index). In other words, German firms are less of a competition for Austrian firms on international export destinations than on the German market itself. This may be so because German exporters target other regions or export different goods, e.g. a higher share of final consumer goods. Two other countries with distinctively higher single export weights are Switzerland and

Chart 1

Austrian manufactured goods subindex: single and double export weights (2013 to 2015)
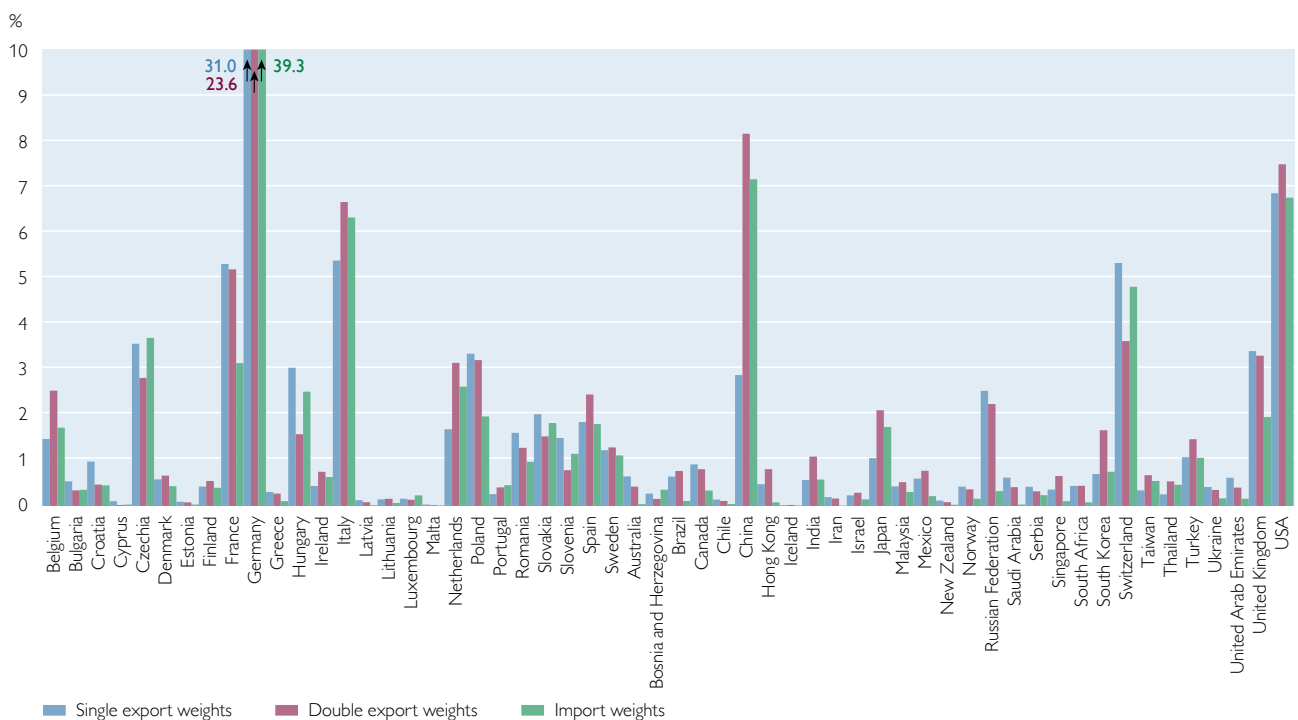
Source: OeNB/WIFO.

Hungary. In contrast, there are several countries with a relatively higher double export weight. In particular, China's double export weight is almost three times the size of its single export weight. This makes Chinese exporters stronger competitors for Austrian firms internationally than on China's home market for manufactured products. To a lesser extent, this also holds for firms from the Netherlands, Italy, Belgium, Japan, South Korea, the USA, Spain, and India.

Table A3 in the appendix also presents values for previous reference periods, thus facilitating long-term comparisons. Over time, French and US exporters have become increasingly less relevant as competitors for Austrian exporters. The same holds, to a lesser extent, for producers located in Japan, the UK, Germany and Italy. In contrast, firms from China leapt forward, to the second double-weight rank. Furthermore, Dutch firms, which used to have a neutral position with respect to third-market competition, have turned into competitors.

The country weights for Austrian services exports are more stable and show only minor changes in bilateral trade flows. For example, 72.4% of services trade occurs between Austria and other EU member states and 58.6% of Austria's services trade is concentrated within the euro area. The most important destination for Austria's services exports is Germany with a country weight of 36.3%, followed by the USA (7.4%), Switzerland (6.1%), Italy (5.2%), the UK (4%) and the Netherlands (3.5%). The weights for the services subindex are mainly determined by trade flows in travel including international passenger transport (34%), as well as other business-related service exports (22%), transport services excluding passenger transport (20%) and telecommunication and information services (9%).

Imports and exports of raw materials and energy are less concentrated on trading partners located in the EU. Total imports to Austria from EU member countries amount to 57.6%, with 28.4% coming from Germany. The second biggest source of raw materials and energy imports is the USA (18.8%), followed by Russia (12.2%). In contrast, the subindex on food and beverages is dominated by trading partners from the EU, which account for 82.4% of imports and 73.9% of exports. Again, Germany tops the list, with 38.7% of imports and 33.7% of exports. Italy comes in a strong second, supplying 11.1% of Austria's food and beverages imports and taking 13.5% of Austria's exports.

3 Price competitiveness after the European government debt crisis

The period 2013–2015 was characterized by severe turbulences on European bond markets. The ECB started to buy government bonds while international investors reduced their exposure to European fixed interest securities after 2013. The negotiations about a debt relief and rescheduling for Greek government debt took until August 2015, when the third bailout agreement was signed. Three years later, in August 2018, Greece was able to exit the bailout program; it took even longer for Greece to return to the capital market. This turbulent period was characterized by wide fluctuations in exchange rates vis-à-vis the euro. Consequently, the nominal effective exchange rate index shows marked peaks and troughs (chart 2, left-hand panel). Austria's gross trade flows (goods and services) declined by some 5% in 2013, but its current account continued to show a surplus of around EUR 7 billion euro every year.

Chart 2

Chained aggregate index of Austria's price competitiveness since 1999 (previous versus revised index)

Nominal

1999 Q1 = 100

Real, deflated by relative HICP/CPI levels

1999 Q1 = 100

Revised index — Previous index
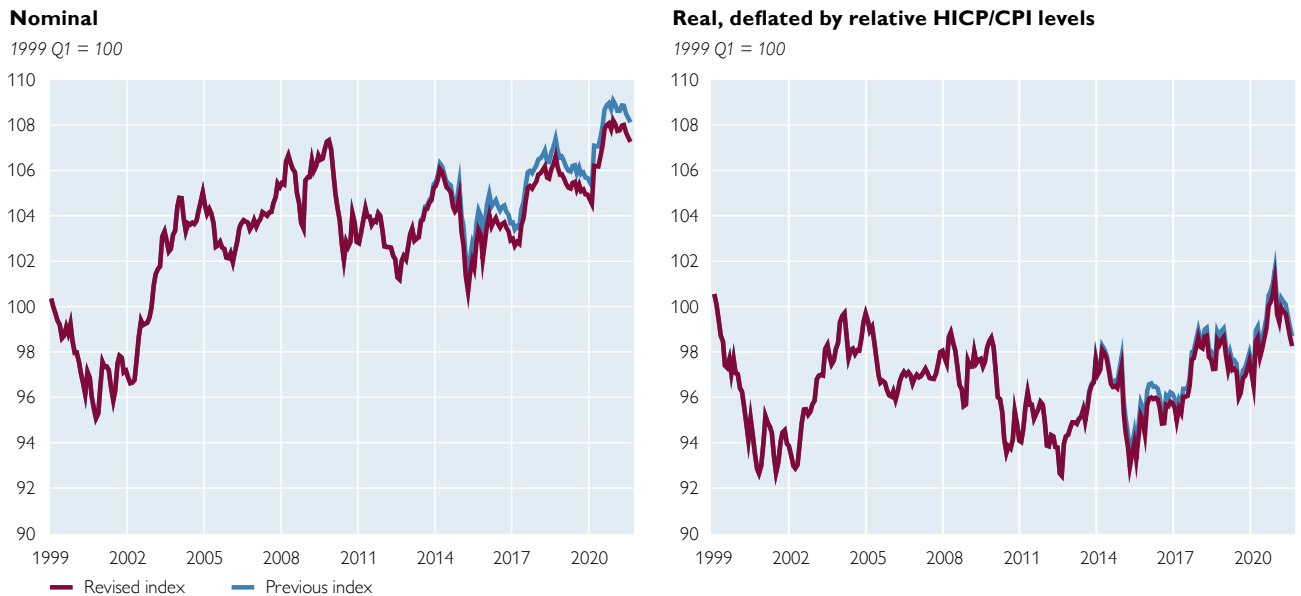
Source: OeNB/WIFO.

The ECB announcement of unlimited support for the euro in summer 2012 continued to support the euro and induced an appreciation of the nominal effective exchange rate throughout 2013 until doubts about the political stability in Greece and the common support for the bailout plan designed by the EU Commission, the ECB, and the IMF emerged (chart 2). Political uncertainty about the common currency project was accompanied by an effective nominal depreciation of 5.1% between March 2014 and April 2015. The agreement about the third Greek bailout in August 2015 supported another rally of the euro, peaking in February 2016, which was followed by a cycle of ups and downs, leaving the nominal effective exchange rate in August 2021 almost 4% above its level in early 2013. The emergence of the COVID-19 pandemic in Europe in March 2020 coincided with a month-on-month jump of the nominal effective exchange rate by 1.6%; this started another appreciation cycle. Based on the weights for the new base period 2013– 2015 (left-hand panel of chart 2), the nominal appreciation appears to have been less pronounced since early 2013, however.

3.1 Recent appreciation not yet corrected by lower inflation in Austria

Purchasing power parity theory tells us that changes in relative prices between any pair of countries will be compensated by changes in the bilateral nominal exchange rate. Because price adjustments are slower than exchange rate fluctuations, the real effective exchange rate immediately shows a gain or loss in price competitiveness, while it is supposed to converge to a stable mean value over time. When we look at Austria's real effective exchange rate deflated by the HICP/CPI (chart 2, right-hand panel), we see that comparatively lower consumer price inflation turned the nominal appreciation of 7.3% measured for the period from 1999 to mid-2021 into a real depreciation of 1.3%. The COVID-19 crisis accelerated nominal appreciation

Chart 3

Austria's real effective exchange rate for manufactured goods (export-weighted)

Nominal index

1999 Q1 = 100

As measured by relative producer prices
As measured by relative HICP/CPI levels

CPI-deflated, by destinations

1999 Q1 = 100

Euro area
USA
Other countries

Non-euro area EU countries
Japan
Total
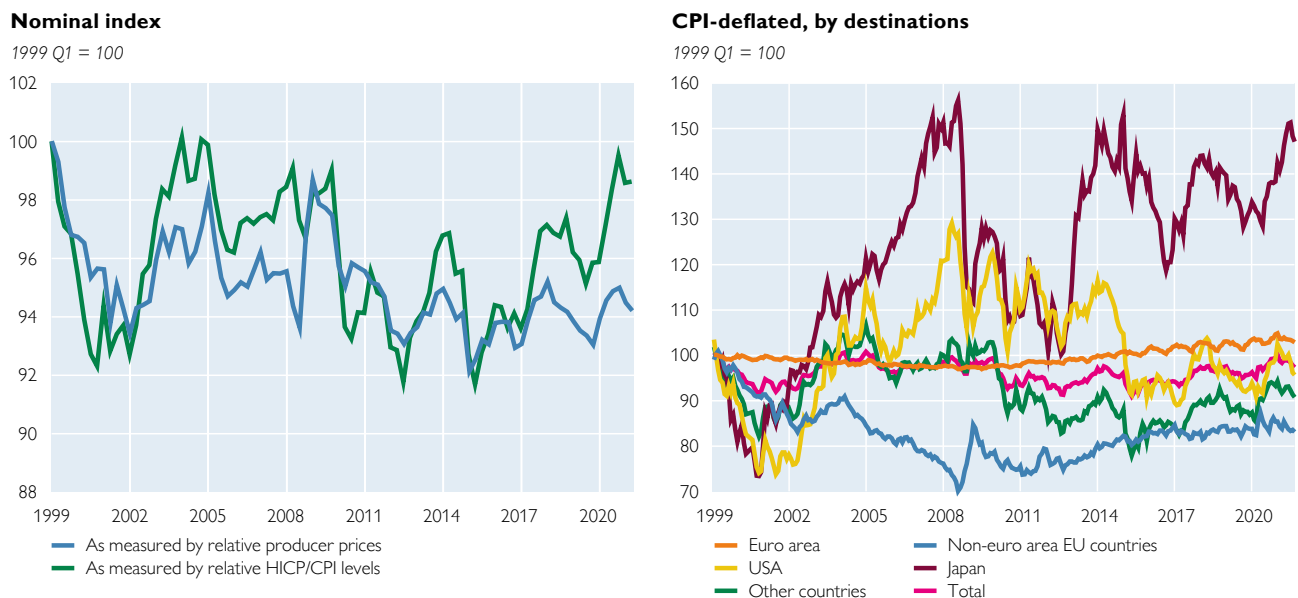
Source: OeNB/WIFO.

to 3% between February 2020 and mid-2021, resulting in a loss of price competitiveness by 2.8% based on HICP/CPI inflation. Again, the loss appears to have been slightly less pronounced since 2013 (chart 2, right-hand panel) once the new weights based on the 2013–2015 period are used.

When we change the perspective, using the producer price index (PPI) for Austrian manufacturers to deflate the export-weighted real effective exchange rate, we find almost no change in price competitiveness (+0.3%) since early 2020 (chart 3, left-hand panel). In a long-term perspective since 1999, a PPI-based comparison reveals a decline of the real effective exchange rate by 5.8%, i.e. a distinct gain in price competitiveness compared to the HICP/CPI-based index. This deviation may be due to the smaller sample (26 countries for the PPI-based index, 56 countries for the HICP/CPI-based index). Or, it may reflect the comparatively moderate increases in Austrian producer prices, based on higher productivity growth and comparatively low wage increases.

European monetary union restricts adjustments of the real effective exchange rate between member countries of the euro area to changes in relative prices, i.e. deviations in relative inflation rates. Austria's long-term position against other euro area countries has, indeed, remained almost stable (chart 3, right-hand panel). In the 22 years since 1999, we observe a small appreciation of the real effective exchange rate based on HICP/CPI with respect to the EA-19 of 2.7%. Vis-à-vis non-euro area members of the EU, Austria visibly gained in price competitiveness. The USA shows marked variations but was almost back to its starting level in 2021. Japan is an outlier, featuring low inflation rates but at the same time a considerable appreciation of its currency during the European government debt crisis.

Chart 4

Austria's real effective exchange rate (import- and export-weighted)

Aggregate indicator

1999 Q1 = 100

As measured by relative unit labor costs
As measured by relative HICP/CPI
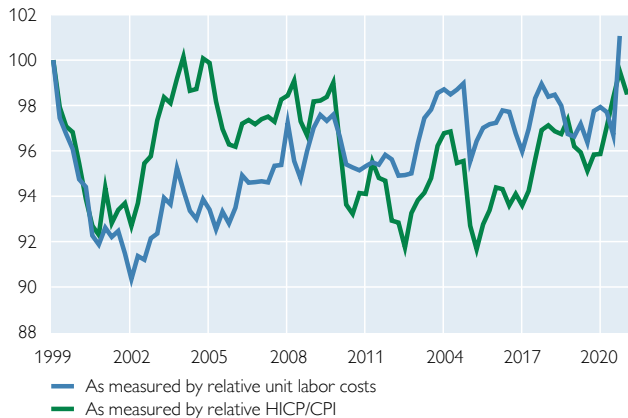
Manufacturing

1999 Q1 = 100

As measured by relative producer prices
As measured by relative HICP/CPI
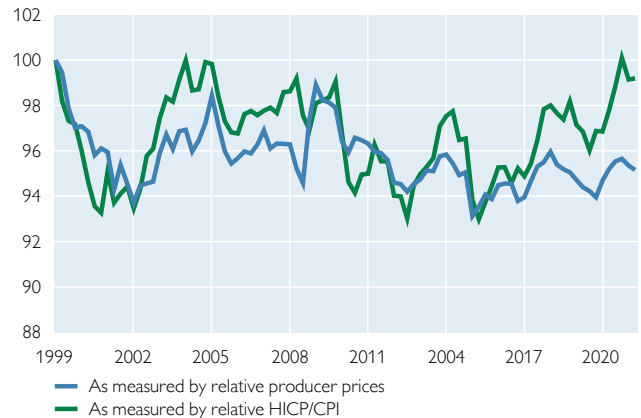
Source: OeNB/WIFO.

3.2 Loss of cost competitiveness prolonged

The (import- and export-weighted) index measuring the cost competitiveness of Austrian producers and service providers uses total unit labor costs as the deflator (chart 4). This indicator shows that Austria's cost competitiveness has slightly declined in the long run (1999–2020: –1.1%). A strong gain in cost competitiveness in the early days of European monetary union, mainly due to an appreciating US dollar, was followed by a long period of decline until the end of the sample. From 2002 to 2008, the ULC-based indicator signals a far larger comparative advantage for Austrian exporters than the HICP/CPI-based measure. After the financial crisis, however, both indicators quickly converged, and they have largely moved in tandem since. The development over the last decade indicates a loss in Austria's price and cost competitiveness by 5.5% (labor costs) and 5.4% (HICP/CPI) respectively. When we look at ULC changes over time, we see that the most recent sharp deterioration is mainly due to the intensive use of short-term work schemes in Austria and the strong build-up of unemployment among unskilled low-paid workers (OECD, 2021). Both effects have pushed upward per capita wages. These effects will be temporary because demand for short-term working programs will stop once the COVID-19 pandemic abates; by September 2021 the number of unemployed persons was already back at 2019 levels. Nevertheless, the strong decrease in working hours still distorts downstream indicators.

3.3 COVID-19 crisis characterized by euro area-wide convergence of total unit labor costs

Over the last few years, unit labor costs in Austria realigned with those in other euro area countries. Germany started to fall behind in ULC terms around 2006, right after the prevailing unemployment and welfare rules ("Hartz-IV") were implemented (chart 5, left-hand panel), following initial labor market reform (the Hartz-I and Hartz-II programs) in January 2002 and beyond. With Germany being

Chart 5

International comparison of total unit labor costs (in local currencies)

Country sample 1

1999 Q1 = 100

France Belgium Netherlands Germany
Austria
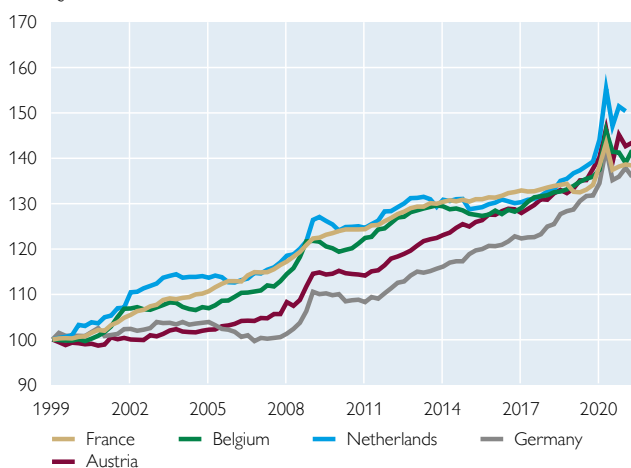
Country sample 2

1999 Q1 = 100

Italy Portugal Spain Finland Austria
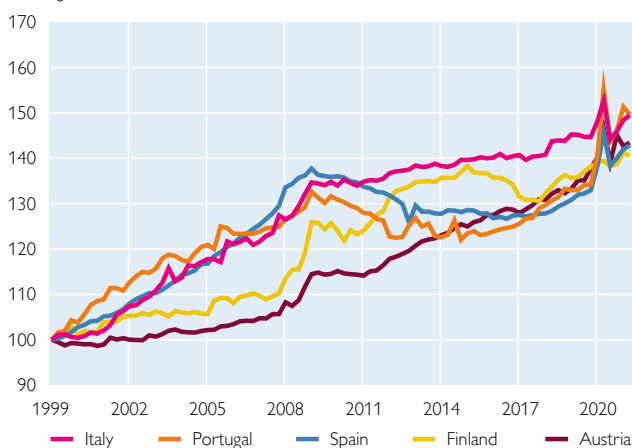
Source: OeNB/WIFO, WDS (WIFO-Daten-System), Macrobond, OECD.

the number-one destination for Austrian exports, wage deals in Germany have typically set the tone for wage negotiations in Austria. In the other euro area countries, wage setting processes tended to drift away from the German and Austrian path, thus making their economies less cost competitive. Surprisingly, this also holds for the Netherlands, another core monetary union member with a sustained current account surplus. Ultimately, the financial and economic crisis forced periphery countries onto a more restrictive path of wage settlements: starting in 2008, their unit labor costs started to converge to the German and Austrian trajectory.

At the end of the euro area sample, we again see signs of a crisis, but this time in the context of the global COVID-19 pandemic. Widespread lockdowns restricting social life and economic activity have been accompanied by government subsidies to firms and monetary transfers to households. The development of unit labor costs has been affected above all by short-time work schemes. Government support created a divergence between value added and the wage bill, which is visible in chart 5 as sharp spikes during 2020 and 2021. Extreme output reductions have been met by the deliberately smoothed wage bill and the structural effect resulting from higher unemployment of low paid unskilled workers (OECD, 2021), for whom employers were less inclined to take up short-time work arrangements. The COVID-19 crisis created a jump in unit labor costs throughout the euro area in the first half of 2020, which was swiftly corrected in the fall but ultimately gave way to a renewed sharp increase in total labor costs amid adverse developments in spring 2021.

The COVID-19-related lockdowns and short-time work schemes were associated with further ULC convergence throughout Europe until mid-2021, as short-term work schemes were being phased out at different speeds and supply-side bottle-necks related to intermediate products were putting increasing strain on the economy.

4 Price competitiveness in the service sector, and in the accommodation sector in particular

The literature on competitiveness has overwhelmingly focused on the manufacturing industry. This focus can be explained by the historical importance of the manufacturing sector for value added and its high integration in international trade. Therefore, comparing competitiveness factors between potential business locations has received a lot of attention. Furthermore, data for the manufacturing industry are more readily available than for services. These indicators have also informed trade policy, which – for a very long time – exclusively looked at tariffs, which are not applied to services. Service trade itself was marginal, as many modes of service trade emerged only recently due to the widespread use of information and communication technology and lower travel costs.

In analyzing the international competitiveness position of Austria's service sector, we need to distinguish between those services provided only or mainly domestically and those services which are traded. Within the latter, there are three main categories of services: tourism, transport and business services. Current account data show that – before the COVID-19 crisis – almost ⅓ of Austrian service exports were related to tourism, ¼ to transport and ½ to business services.[10] Since business services are closely linked to manufacturing activity, they are also closely interrelated to goods exports. In contrast, tourism has much lower linkages to the manufacturing industry, but it is nevertheless characterized by competition between regions/countries. However, to our knowledge until now no comprehensive measure of competitiveness, such as a real effective exchange rate, has been developed with respect to tourism trade flows.

4.1 Domestic service providers lost price competitiveness in the years before the COVID-19 crisis

Deflating (export- and import-weighted) real effective exchange rates for the service sector (1) by unit labor costs (based on 31 countries) to capture cost pressure and (2) by the HICP/CPI[11] (based on 56 countries) to depict general price aspects reveals mixed results over the period from 1999 to early 2021.

In the first years after euro area accession, the Austrian service sector managed to strongly improve its competitiveness position (chart 6), both in terms of costs and prices, in line with a depreciation trend. This development reversed until mid-2000, with a stronger backlash from prices than costs. Thereafter, both indicators converged to similar levels and stagnated (with slight ups and downs) in a synchronized manner for about ten years. In the years before the outbreak of the COVID-19 crisis, both exchange rates had started to trend upward, indicating a loss in Austrian tradable services competitiveness (appreciation) vis-à-vis trading partners.

The upward trend in the two real effective exchange rates intensified in the last two years of the sample. However, the development during the COVID-19 crisis must be taken with caution, as all competitiveness indicators are biased during that

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[10] Ragacs and Vondra (2020).

[11] During the lockdowns in 2020 and 2021, no prices could be collected in the hotel and restaurant industry due to closures. According to Eurostat, this affected between 12% and 20% of the products in the Austrian HICP basket from January 2021 to May 2021. See OeNB (2021, p. 5) for further details.

Chart 6

Austria's real effective exchange rate for services

1999 Q1 = 100

Start of COVID-19 crisis

— As measured by relative unit labor costs
— As measured by relative HICP/CPI levels

Source: OeNB/WIFO.

Table 1

The importance of tourism for the Austrian economy

	2019	
	EUR million	Share in value added in %
National accounts data – value added		
Accommodation and food service activities (NACE I)	18,869	5.3
Arts, entertainment and recreation (NACE R)	4,485	1.3
Sectors I and R	23,354	6.6
	EUR million	Share of GDP in %
Tourism satellite accounts (TSA) – GDP		
Direct value added excl. business trips	22,135	5.6
Direct value added incl. business trips	23,545	5.9
Direct and indirect value added	29,171	7.3

Source: Statistics Austria, Eurostat.

phase.[12] Viewed over the full sample period, the initial improvement in service competitiveness melted away over the past 20 years. Both real effective exchange rates – deflated by unit labor costs and deflated by HICP – are currently very close to their values in the first quarter of 1999.

4.2 Tourism as a key pillar of the Austrian economy[13]

The COVID-19 pandemic has clearly shown the importance of the tourism industry for the Austrian economy – and its vulnerability. The economic setback that Austria experienced in the first quarter of 2021 was much more severe than the decline measured in countries with a comparable situation but with a smaller share of tourism. As direct consequence of the temporary shutdown of the tourism industry and the ensuing revenue loss, Austria's current account turned into a deficit of EUR 1.3 billion in the first quarter of 2021, from a surplus of almost EUR 5 billion in the first quarters of 2019 and 2020. The importance of tourism is also mirrored in the regional development of unemployment. Tyrol, Vorarlberg, Salzburg and Carinthia – the federal states most dependent on tourism – have suffered the strongest increases in unemployment.

There is no straightforward way to statistically capture the importance of tourism for the national economy, as within the framework of the System of National Accounts this sector can only be approximated by the sum of the NACE service sectors I (accommodation and food services) and R (arts, entertainment and recreation). Without further information, it is not possible to distinguish activities consumed by residents from services bought by tourists. Still, the sum of these two sectors may serve as an approximation for the importance of tourism in Austria. Together, these two sectors accounted for 6.6% of total value added in 2019 (2020 data not yet available).

An alternative and conceptually more precise way to assess the importance of this sector are tourism satellite accounts (TSA), which have been available for

[12] *See Ragacs und Vondra (2021), p.15 and 16.*

[13] *This chapter relies on Fenz, Stix, Vondra (2021) and is a reduced form of chapter 1.*

Austria since 1999.[14] Counting only direct effects and excluding business trips, tourism in Austria contributed 5.6% to total GDP in 2019 (see table 1). In a broader sense – including indirect effects and business trips – the share was 7.3%. Since 2000 this proportion has remained almost unchanged. If – on top of that – the whole leisure industry is included as well, then the share doubles to almost 15% (Laimer et al., 2013).[15]

Capturing the importance of the tourism industry is even more complicated for cross-country comparisons, as TSAs are not available or comparable (due to different concepts, data and/or publishing periods) for many countries. But in general, for most countries the TSA results are broadly similar to the share of the sectors I and R in total value added. Within Europe, the share of tourism in value added is highest among Mediterranean countries, followed by Austria with a markedly higher share than for example in Germany, Switzerland, or Denmark.

4.3 Real effective exchange rates for the tourism industry

To our knowledge, ours is the first effort to compute real effective exchange rates and hence price competitiveness indicators for the Austrian tourism sector, or more precisely the accommodation sector. We start by computing the nominal effective exchange rate for a lower number of countries (43) for reasons of data availability (consumer price index for the accommodation industry).[16] This rate reflects Austria's bilateral exchange rates weighted by the respective share of each country in total service exports from Austria.[17] As is evident from chart 7, a period of nominal depreciation was followed by a rebound, which more than compensates the preceding depreciation. From mid-2000 onward, the nominal exchange rate for accommodation services shows a stable development, which turns into a slight upward trend from early 2017 on. Over the whole period (first quarter 1999 to May 2021), we observe a nominal appreciation vis-à-vis the 43 partner countries of more than 5%, which would appear to be a stable measure for a period of more than 20 years.

In a second step, we deflate the nominal effective exchange rate with the country-specific consumer price deflators for the accommodation sector (COICOP 11 classification). The resulting real effective exchange rate index (green line in chart 7)[18] shows a much stronger depreciation than the nominal effective exchange rate between 1999 and 2002, indicating an improvement by almost 10% in this early stage of monetary union. In the following countermovement – up until mid-2003 – the accommodation sector lost around half of its prior gains. In

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[14] In the TSA, both supply-side and demand-side information are used and combined with input-output tables.

[15] This includes also all leisure and recreation activities of residents in or near their home environment.

[16] These countries are considered: Belgium, Bulgaria, Croatia, Czechia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Spain, Slovakia, Slovenia, Sweden, Australia, Canada, Chile, Hong Kong, Iceland, Israel, Japan, Mexico, New Zealand, Norway, Russia, South Korea, Switzerland, Taiwan, Turkey, the UK and the USA.

[17] The calculation could be refined by taking only the exports for travel services from the balance of payment statistics. Although basically available, there are several methodical difficulties, which makes it difficult to use these data. Therefore, we use service export numbers, which also include transport and business services. Overnight stays as an alternative indicator would only include a quantity measure but no price measure, hence this kind of weighting would yield a conceptually different exchange rate.

[18] The monthly consumer price indices lead to a seasonal pattern, which is corrected via a seasonal adjustment program (X12).

Chart 7

Real effective exchange rate for hotel services in Austria

Index: 1999 Q1=100

- Nominal effective exchange rate
- Real effective exchange rate (REER)
- REER (seasonally adjusted)
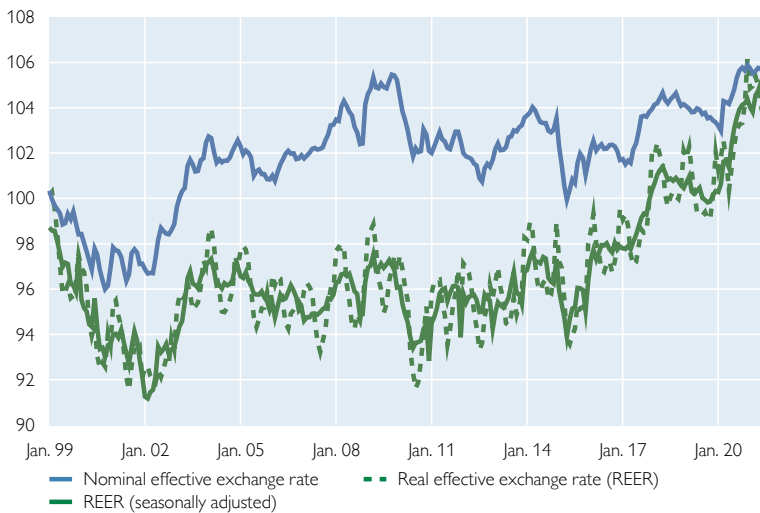
Soruce: WIFO/OeNB.

Chart 8

Overnight stays and expenditures by foreign tourists in Austria

Million stays   *EUR million*

- Overnight stays (seasonally adjusted)
- Tourist travel expenditures (seasonally adjusted and deflated)
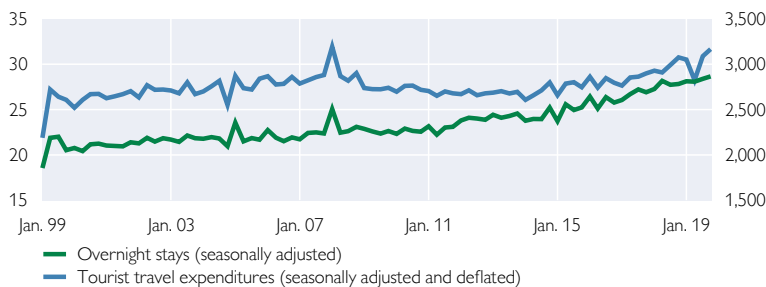
Source: Statistics Austria, OeNB.

the subsequent period until 2015, the real effective exchange rate evolved at a rather stable rate with some ups and downs. Thereafter, the overall stable corridor gave way to a steady upward trend. Between April 2015 and July 2021, the relative competitiveness position of Austria's accommodation sector deteriorated by 11% mainly due to higher inflation rates in this sector compared to the main trading partners. Due to the antecedent depreciation, this later appreciation resulted in an overall loss of competitiveness of 4% compared to early 1999 vis-à-vis Austria's 43 most important trading partners for accommodation exports.

Next, we cross-check these results with data on overnight stays and export revenues generated by tourism in Austria (chart 8). These data mark the structural break brought on by the ongoing COVID-19 pandemic, but they are not as current as the exchange rate data. In late 2021, it is still unclear whether the drop in overnight stays and revenues will ultimately be found to have been a temporary phenomenon or what the long-run consequences will be. The steady upward trend in overnight stays,[19] which are a measure of quantity but disregard the price aspect, got steeper from early 2015 onward until the onset of the COVID-19 crisis. The tourist travel expenditures taken from the balance of payment statistics,[20] which cover both quantity and price effects, show a similar pattern over the recent years. They indicate a weak upward trend between 1999 and 2007, followed by a weak downward trend until 2014. Since 2015, there has been a distinct upward trend. Higher (nominal) expenditures in a longer perspective are a result of increasing prices, but this increase in Austria is very much related to the improvements in the quality of the product "vacation." Between 2015 and 2020, we recorded a 14% increase of upper price class hotels (with four and five stars).[21] As pointed out by Smeral (2015), demand for holidays

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[19] As the overnight stays have a very pronounced seasonal course, data are seasonally adjusted.

[20] Also the balance of payment statistics data have a pronounced seasonal course, therefore data are also seasonally adjusted and on top deflated via the HICP for restaurants and hotels.

[21] See Hotel & Design (2020).

is directly related to household income; the income elasticity for holidays is bigger than one, indicating that the quality improvement has triggered additional demand, which is characterized by the willingness to spend more.

The appreciation of the real effective exchange rate since 2015, which (1) indicates a loss in price competitiveness and (2) a distinct upward trend in the number of overnight stays and expenditures of foreign tourists since 2015, appear to be conflicting developments in a demand-side interpretation under ceteris paribus conditions (e.g. no change in quality). Higher relative costs should normally lead to less demand. However, when viewed from the supply side, the Austrian tourism sector succeeded in raising prices relative to its competitors, as demand for its product – holiday stays in Austria – increased. As already stated before, this development is also in line with the observed trend toward higher price segments, i.e. four and five star hotels. Furthermore, the share of holiday packages in the high-expenditure segment – conference, sports (skiing) and culture tourism – has increased in Austria. These developments hint towards a low price elasticity of demand of foreign tourists: Their decision to visit Austria is driven by quality and unique experience and less by relative prices.[22] Hence, nonprice competitiveness aspects play a major role.[23]

5 Summary

In the long run, a country's competitive position depends on a multitude of structural factors, but in the short run it is mainly determined by the price and cost competitiveness of tradable goods and services (Peneder et al., 2021). Short-run changes in the international competitiveness of a country are highlighted by its nominal effective exchange rate, which is the trade-weighted average value of the corresponding bilateral exchange rates. In the medium term, firms respond to shifts in relative prices by trimming costs, lowering prices, or by searching for markets with higher expected margins. Aggregate exchange rate fluctuations can be combined with price or cost indices to produce real effective exchange rates, which are widely used indicators for the short- to medium-term change in the competitive position of a country.

Using data on bilateral trade flows with Austria's 56 most important trading partners over the period 2013–2015 to adjust the weighting scheme, the OeNB and with WIFO (Austrian Institute of Economic Research) again joined efforts to recalculate the Austrian competitiveness indicator and its four subindices, from January 2013 onward. Our four subindices cover manufactured goods, food and beverages, raw materials and energy products, and services. Individual country weights in the subindex for manufactured goods continue to be calculated on the basis of single (bilateral) import and double (multilateral) export weights. The remaining subindices use only single (bilateral) import and export weights. All in all, we use four different deflators to calculate the harmonized competitiveness indicators, each having its own pros and cons in terms of timely availability across countries, international comparability, and the degree of focus on tradable goods.

[22] *The presented calculations show aggregated numbers for the whole accommodation sector. Results might change if subsamples would be considered, i.e. 1 to 3 star versus 4 and 5 star hotels.*

[23] *See Vondra (2014) for the role of (non-)price competitiveness to explain market share changes for the Austrian economy.*

The four deflators are the HICP/CPI, the tourism-related components of the HICP/CPI, producer prices, and unit labor costs of the economy as a whole.

Austria's biggest neighboring economy, Germany, remains the key trading partner with a share of 32.5% in the total weighting scheme, but its share has been declining over time. The USA (7.8%) emerged as the second-largest trading partner as Italy (6.5%) moved down by one rank. With a weight of 5%, China continues to hold the fourth position. From a regional perspective, trade patterns shifted away from large EU member countries toward the USA and China. Trading relations weakened somewhat with respect to North Eastern Europe and Brazil, while the UK, some Eastern European countries, and Turkey reinforced their trading relations with Austria.

The new competitiveness indicator shows that Austria's competitive position has been weakening in the medium term, starting with the government debt crisis in the euro area. The real effective exchange rate has been appreciating, with sharper spikes since the COVID-19 pandemic hit Europe. At the same time, the appreciation has been somewhat less pronounced than suggested by the previous weighting scheme. The loss of competitiveness is highest when using unit labor costs as the deflator. This measure, however, is biased at the moment due to the extensive use of short-term work schemes in Austria, which smoothed the development of per capita wages against the sharp drop in per capita GDP during lockdowns.

For the service sector, the real effective exchange rates (both for the price and the cost side) indicate a gradual appreciation since 2015. The same holds for the accommodation industry, but at a higher pace. From a demand perspective, this indicates a loss in Austria's competitiveness position. Ceteris paribus and under the assumption of a homogenous good, this loss in competitiveness should go along with a reduction in demand. Despite the recent appreciation, the Austrian tourism industry, measured by foreign overnight stays and by tourist expenditures in the current account statistics, has clearly improved its "output" in recent years. In other words, the appreciation should not be interpreted as a pure demand-dampening effect; rather, it shows the ability of the tourism industry to set higher prices.

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Appendix

Exchange rate index update for Austria – new weighting scheme

Competing countries	Austrian exports						Austrian imports		
	Manu-factured goods	Raw materials, energy products	Food	Goods	Services	Total	Manu-factured goods	Raw materials, energy products	Food
	Country weights in %, calculated for the period from 2013 to 2015								
Belgium	2.53	0.46	0.99	2.30	1.62	2.11	1.72	0.39	1.74
Bulgaria	0.34	0.34	0.43	0.35	0.48	0.38	0.35	0.09	0.30
Croatia	0.47	1.03	1.20	0.55	0.79	0.62	0.45	0.31	0.41
Cyprus	0.02	0.04	0.10	0.03	0.33	0.11	0.03	0.00	0.07
Czechia	2.81	4.84	2.55	2.90	2.37	2.75	3.68	7.40	2.98
Denmark	0.66	0.17	0.66	0.64	0.63	0.63	0.43	0.14	0.73
Estonia	0.08	0.05	0.07	0.08	0.06	0.07	0.03	0.04	0.01
Finland	0.55	0.12	0.28	0.50	0.61	0.53	0.40	0.18	0.07
France	5.18	2.02	2.17	4.79	2.28	4.08	3.13	0.88	3.45
Germany	23.56	26.86	33.67	24.47	40.41	29.01	39.34	28.45	38.67
Greece	0.27	0.13	0.65	0.29	0.26	0.28	0.10	0.09	0.73
Hungary	1.57	7.73	4.05	2.09	2.58	2.23	2.51	3.35	5.17
Ireland	0.75	0.02	0.08	0.66	0.61	0.65	0.63	0.09	0.40
Italy	6.66	17.89	13.47	7.77	4.89	6.95	6.32	3.33	11.12
Latvia	0.08	0.02	0.10	0.08	0.09	0.08	0.02	0.04	0.04
Lithuania	0.16	0.12	0.14	0.16	0.08	0.14	0.06	0.03	0.19
Luxembourg	0.13	0.04	0.05	0.12	0.75	0.30	0.23	0.02	0.12
Malta	0.02	0.03	0.10	0.02	0.22	0.08	0.01	0.00	0.00
Netherlands	3.14	0.92	2.54	2.97	4.09	3.29	2.61	1.89	4.93
Poland	3.19	1.16	1.99	3.00	1.51	2.57	1.96	1.92	3.81
Portugal	0.41	0.12	0.15	0.37	0.15	0.31	0.45	0.08	0.14
Romania	1.27	1.20	1.01	1.25	1.49	1.32	0.97	0.68	0.79
Slovakia	1.52	3.96	1.82	1.68	1.59	1.65	1.81	4.94	1.90
Slovenia	0.78	9.08	3.45	1.43	1.11	1.34	1.14	2.40	0.88
Spain	2.44	0.76	1.22	2.26	0.79	1.84	1.80	0.28	3.49
Sweden	1.28	0.23	0.98	1.20	1.47	1.28	1.11	0.63	0.21
Australia	0.43	0.13	0.75	0.43	0.28	0.39	0.04	0.12	0.12
Bosnia and Herzegovina	0.15	0.18	0.48	0.18	0.22	0.19	0.35	0.41	0.09
Brazil	0.76	0.11	0.42	0.70	0.18	0.56	0.11	0.61	1.24
Canada	0.80	0.03	0.14	0.71	0.40	0.62	0.33	0.28	0.09
Chile	0.11	0.00	0.17	0.11	0.11	0.11	0.04	0.25	0.34
China	8.16	2.45	0.48	7.29	0.97	5.49	7.16	0.33	0.61
Hong Kong	0.81	0.20	0.19	0.73	0.19	0.57	0.08	0.00	0.00
Iceland	0.02	0.00	0.01	0.02	0.03	0.02	0.01	0.00	0.01
India	1.08	0.47	0.09	0.98	0.23	0.76	0.58	0.11	0.32
Iran	0.16	0.03	0.08	0.15	0.08	0.13	0.01	0.02	0.08
Israel	0.29	0.27	0.32	0.29	0.21	0.27	0.14	0.03	0.11
Japan	2.10	1.46	0.80	1.97	0.47	1.54	1.73	0.05	0.06
Malaysia	0.52	0.02	0.03	0.46	0.09	0.35	0.31	0.02	0.03
Mexico	0.77	0.02	0.02	0.68	0.16	0.53	0.21	0.66	0.17
New Zealand	0.08	0.00	0.06	0.08	0.07	0.07	0.02	0.02	0.18
Norway	0.36	0.05	0.22	0.34	0.42	0.36	0.16	0.43	0.32
Russian Federation	2.23	0.49	1.76	2.10	2.21	2.13	0.32	12.20	0.09
Saudi Arabia	0.41	0.10	0.36	0.39	0.28	0.36	0.03	1.77	0.00
Serbia	0.32	0.39	0.47	0.33	0.35	0.34	0.24	0.25	0.73
Singapore	0.66	0.00	0.06	0.58	0.16	0.46	0.11	0.00	0.01
South Africa	0.44	0.03	0.25	0.40	0.13	0.32	0.08	1.62	0.39
South Korea	1.66	0.73	0.61	1.53	0.22	1.16	0.75	0.02	0.03
Switzerland	3.61	7.72	4.09	3.87	7.40	4.88	4.80	0.79	3.90
Taiwan	0.67	0.14	0.10	0.60	0.12	0.47	0.55	0.01	0.01
Thailand	0.54	0.04	0.03	0.47	0.10	0.37	0.46	0.08	0.33
Turkey	1.46	1.17	0.70	1.39	1.10	1.31	1.06	0.38	1.87
Ukraine	0.35	0.31	0.50	0.36	0.44	0.38	0.17	2.08	0.24
United Arab Emirates	0.40	0.11	0.40	0.39	0.62	0.45	0.16	0.01	0.01
United Kingdom	3.29	1.59	1.94	3.10	3.80	3.30	1.95	1.00	1.10
USA	7.49	2.42	10.51	7.42	7.72	7.51	6.76	18.82	5.17
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: OeNB/WIFO.

Exchange rate index update for Austria – new weighting scheme

Competing countries	Austrian imports			Exports and imports					
	Goods	Services	Total	Manu-factured goods	Raw materials, energy products	Food	Goods	Services	Total
	Country weights in %, calculated for the period from 2013 to 2015								
Belgium	1.52	1.77	1.58	2.14	0.41	1.37	1.91	1.69	1.85
Bulgaria	0.31	1.07	0.49	0.35	0.16	0.36	0.33	0.75	0.44
Croatia	0.43	2.33	0.88	0.46	0.50	0.80	0.49	1.48	0.75
Cyprus	0.03	0.44	0.13	0.03	0.01	0.09	0.03	0.38	0.12
Czechia	4.17	2.96	3.88	3.22	6.70	2.77	3.54	2.63	3.30
Denmark	0.41	0.39	0.41	0.55	0.15	0.70	0.52	0.52	0.52
Estonia	0.03	0.17	0.06	0.05	0.04	0.04	0.05	0.11	0.07
Finland	0.34	1.12	0.53	0.48	0.16	0.18	0.42	0.83	0.53
France	2.83	2.42	2.73	4.21	1.19	2.83	3.80	2.34	3.42
Germany	37.70	31.14	36.14	31.07	28.01	36.23	31.14	36.29	32.50
Greece	0.15	0.99	0.35	0.19	0.10	0.69	0.22	0.59	0.31
Hungary	2.82	3.46	2.98	2.02	4.55	4.62	2.46	2.97	2.59
Ireland	0.54	1.38	0.74	0.69	0.07	0.24	0.60	0.95	0.69
Italy	6.24	5.67	6.10	6.50	7.29	12.27	7.00	5.24	6.54
Latvia	0.02	0.14	0.05	0.05	0.04	0.07	0.05	0.11	0.07
Lithuania	0.07	0.41	0.15	0.11	0.06	0.16	0.11	0.23	0.14
Luxembourg	0.19	1.08	0.40	0.18	0.02	0.09	0.16	0.90	0.35
Malta	0.01	0.23	0.06	0.02	0.01	0.05	0.02	0.22	0.07
Netherlands	2.68	2.68	2.68	2.89	1.63	3.76	2.82	3.46	2.99
Poland	2.09	2.55	2.20	2.61	1.71	2.92	2.54	1.97	2.39
Portugal	0.38	0.45	0.39	0.43	0.09	0.14	0.37	0.29	0.35
Romania	0.91	2.22	1.22	1.13	0.82	0.90	1.08	1.81	1.27
Slovakia	2.28	3.02	2.45	1.66	4.67	1.86	1.98	2.23	2.05
Slovenia	1.30	1.85	1.43	0.95	4.22	2.14	1.37	1.44	1.39
Spain	1.70	1.89	1.75	2.13	0.41	2.38	1.98	1.28	1.80
Sweden	0.97	1.96	1.21	1.20	0.53	0.58	1.09	1.69	1.25
Australia	0.06	0.24	0.10	0.24	0.12	0.43	0.24	0.26	0.25
Bosnia and Herzegovina	0.34	0.28	0.33	0.25	0.35	0.28	0.26	0.24	0.26
Brazil	0.26	0.27	0.27	0.45	0.47	0.84	0.48	0.22	0.41
Canada	0.31	0.50	0.35	0.58	0.21	0.11	0.51	0.44	0.49
Chile	0.10	0.09	0.09	0.08	0.18	0.26	0.10	0.10	0.10
China	5.68	0.87	4.54	7.68	0.91	0.55	6.48	0.92	5.02
Hong Kong	0.06	0.26	0.11	0.46	0.06	0.09	0.39	0.22	0.35
Iceland	0.01	0.04	0.02	0.02	0.00	0.01	0.01	0.03	0.02
India	0.49	0.34	0.46	0.84	0.21	0.21	0.73	0.28	0.61
Iran	0.01	0.05	0.02	0.09	0.02	0.08	0.08	0.07	0.08
Israel	0.12	0.19	0.14	0.22	0.09	0.21	0.21	0.20	0.20
Japan	1.36	0.27	1.10	1.92	0.44	0.42	1.66	0.38	1.33
Malaysia	0.24	0.29	0.25	0.42	0.02	0.03	0.35	0.18	0.30
Mexico	0.28	0.12	0.24	0.51	0.49	0.10	0.47	0.14	0.39
New Zealand	0.04	0.07	0.04	0.06	0.01	0.12	0.06	0.07	0.06
Norway	0.21	0.28	0.23	0.27	0.33	0.27	0.27	0.36	0.29
Russian Federation	2.04	1.70	1.96	1.32	9.01	0.91	2.07	1.98	2.05
Saudi Arabia	0.28	0.13	0.24	0.23	1.32	0.18	0.33	0.21	0.30
Serbia	0.27	0.45	0.32	0.28	0.28	0.60	0.30	0.39	0.33
Singapore	0.08	0.17	0.10	0.39	0.00	0.03	0.33	0.17	0.29
South Africa	0.32	0.44	0.35	0.27	1.18	0.32	0.36	0.27	0.34
South Korea	0.59	0.14	0.48	1.23	0.21	0.31	1.06	0.19	0.83
Switzerland	4.15	4.54	4.24	4.18	2.68	3.99	4.01	6.12	4.57
Taiwan	0.43	0.15	0.36	0.61	0.05	0.05	0.52	0.13	0.42
Thailand	0.40	0.34	0.38	0.50	0.07	0.18	0.44	0.21	0.38
Turkey	1.02	1.21	1.06	1.27	0.60	1.30	1.20	1.15	1.19
Ukraine	0.45	0.74	0.52	0.26	1.60	0.37	0.41	0.57	0.45
United Arab Emirates	0.12	0.61	0.24	0.29	0.03	0.20	0.25	0.62	0.35
United Kingdom	1.75	4.34	2.37	2.65	1.16	1.51	2.42	4.04	2.84
USA	8.40	7.08	8.09	7.14	14.35	7.78	7.92	7.44	7.79
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: OeNB/WIFO.

Competition matrix for manufactured goods exports from Austria

Competing countries	Destinations											
	Belgium	Bulgaria	Croatia	Cyprus	Czechia	Den-mark	Estonia	Finland	France	Ger-many	Greece	Hungary

Market shares in %: calculated for the period from 2013 to 2015

Competing countries	Belgium	Bulgaria	Croatia	Cyprus	Czechia	Den-mark	Estonia	Finland	France	Ger-many	Greece	Hungary
Belgium	10.27	2.21	1.32	1.97	1.96	2.53	1.89	1.53	6.45	3.42	2.05	2.41
Bulgaria	0.28	35.17	0.39	0.51	0.18	0.10	0.14	0.03	0.11	0.16	1.41	0.31
Croatia	0.05	0.15	36.71	0.10	0.08	0.04	0.04	0.02	0.03	0.08	0.05	0.18
Cyprus	0.00	0.03	0.01	11.19	0.01	0.02	0.04	0.00	0.00	0.00	0.34	0.00
Czechia	1.26	2.40	2.06	1.54	32.56	1.45	1.56	0.64	0.99	2.77	0.42	4.33
Denmark	0.41	0.26	0.41	0.30	0.33	40.49	1.09	1.35	0.30	0.67	0.25	0.57
Estonia	0.05	0.03	0.01	0.37	0.03	0.19	22.30	1.33	0.02	0.03	0.01	0.04
Finland	0.46	0.19	0.14	0.99	0.18	0.69	6.91	61.90	0.18	0.38	0.13	0.27
France	8.96	2.49	1.66	2.25	2.52	2.16	1.57	1.37	43.86	4.37	2.62	3.98
Germany	14.09	11.26	12.00	9.11	22.58	13.96	10.46	7.30	13.85	55.61	6.87	24.13
Greece	0.06	3.07	0.24	11.02	0.10	0.08	0.04	0.03	0.07	0.07	56.63	0.09
Hungary	0.54	2.94	3.69	0.33	2.23	0.64	1.22	0.24	0.55	1.53	0.45	19.53
Ireland	5.07	0.28	0.19	0.39	0.33	0.51	0.12	0.19	0.59	0.44	0.48	0.36
Italy	4.64	7.02	10.83	6.27	3.25	2.28	2.64	1.26	5.71	3.06	5.67	4.70
Latvia	0.03	0.08	0.02	0.72	0.08	0.29	5.62	0.14	0.02	0.03	0.02	0.05
Lithuania	0.08	0.16	0.04	0.10	0.14	0.48	3.95	0.22	0.06	0.09	0.03	0.15
Luxembourg	0.46	0.09	0.02	0.13	0.08	0.10	0.06	0.04	0.20	0.17	0.03	0.06
Malta	0.00	0.02	0.08	0.03	0.01	0.01	0.00	0.00	0.02	0.02	0.02	0.01
Netherlands	10.57	2.53	1.85	3.60	4.40	4.21	4.88	2.39	3.61	4.04	2.25	3.13
Poland	1.19	2.21	1.77	3.71	6.11	2.32	6.28	0.99	1.19	2.54	0.88	4.94
Portugal	0.35	0.17	0.09	0.40	0.21	0.28	0.18	0.09	0.76	0.39	0.18	0.26
Romania	0.32	3.91	0.56	0.30	0.85	0.21	0.44	0.13	0.50	0.68	0.61	2.61
Slovakia	0.38	1.45	1.58	1.11	5.19	0.64	0.46	0.16	0.51	0.99	0.31	3.76
Slovenia	0.11	0.67	7.21	0.20	0.40	0.27	0.22	0.05	0.18	0.32	0.11	0.72
Spain	1.79	1.25	1.08	2.59	1.12	0.97	0.93	0.60	4.55	1.44	2.27	1.56
Sweden	1.96	0.38	0.45	0.39	0.64	7.26	5.51	5.82	0.62	0.71	0.35	0.68
Australia	0.06	0.02	0.01	0.02	0.01	0.05	0.02	0.02	0.04	0.03	0.01	0.02
Bosnia and Herzegovina	0.01	0.06	1.83	0.05	0.05	0.00	0.00	0.00	0.01	0.04	0.02	0.10
Brazil	0.30	0.01	0.05	0.03	0.02	0.31	0.21	0.09	0.10	0.12	0.03	0.18
Canada	0.67	0.06	0.07	0.36	0.07	0.10	0.10	0.19	0.23	0.10	0.06	0.10
Chile	0.20	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.09	0.01	0.23	0.00
China	5.23	3.68	5.64	10.43	4.83	5.49	6.31	3.79	3.38	3.88	5.34	6.03
Hong Kong	0.98	0.21	0.20	0.34	0.55	0.51	0.91	0.65	0.62	0.54	0.21	1.63
Iceland	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.02	0.00	0.06
India	1.63	0.61	0.57	0.68	0.26	0.65	0.39	0.23	0.46	0.40	0.37	0.38
Iran	0.01	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Israel	0.94	0.29	0.10	9.62	0.09	0.06	0.09	0.08	0.18	0.09	0.43	0.16
Japan	1.66	0.24	0.17	3.63	0.71	0.33	0.98	0.33	0.67	0.95	0.26	1.34
Malaysia	0.27	0.12	0.05	0.10	0.20	0.12	0.13	0.10	0.18	0.27	0.32	0.23
Mexico	0.22	0.00	0.00	0.02	0.09	0.11	0.02	0.05	0.15	0.19	0.01	0.38
New Zealand	0.01	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.01	0.00	0.00
Norway	0.18	0.04	0.15	0.26	0.08	1.29	0.67	0.47	0.10	0.18	0.12	0.06
Russian Federation	1.53	1.78	0.31	1.82	0.53	0.43	4.08	1.47	0.08	0.30	0.35	0.51
Saudi Arabia	0.56	0.02	0.01	0.09	0.00	0.00	0.47	0.01	0.03	0.01	0.19	0.00
Serbia	0.04	0.62	1.39	0.56	0.19	0.04	0.02	0.01	0.04	0.09	0.15	0.26
Singapore	1.57	0.06	0.04	0.10	0.32	0.13	0.09	0.12	0.42	0.29	0.04	0.36
South Africa	0.66	0.05	0.01	0.05	0.06	0.02	0.09	0.01	0.08	0.21	0.04	0.07
South Korea	0.69	0.37	0.75	0.55	1.16	1.50	0.64	0.27	0.35	0.41	1.61	1.67
Switzerland	1.87	1.17	1.07	0.80	0.94	0.88	0.68	0.57	1.79	2.18	1.35	1.10
Taiwan	0.37	0.38	0.20	0.30	0.26	0.32	0.72	0.47	0.18	0.33	0.20	0.55
Thailand	0.49	0.07	0.07	0.17	0.46	0.36	0.31	0.20	0.16	0.21	0.15	0.50
Turkey	0.74	5.46	1.09	2.52	0.44	0.84	0.96	0.21	0.71	0.71	1.51	0.72
Ukraine	0.04	1.57	0.16	0.23	0.17	0.10	0.42	0.04	0.02	0.07	0.16	1.07
United Arab Emirates	1.36	0.06	0.06	0.28	0.02	0.01	0.07	0.08	0.06	0.04	0.06	0.03
United Kingdom	4.62	1.74	0.97	6.10	1.83	2.65	1.72	1.53	2.72	2.22	1.69	1.94
USA	9.71	0.82	0.63	1.25	1.09	1.47	1.33	1.18	2.16	2.09	0.67	1.72
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Austria's single export weights	*1.41*	*0.51*	*0.93*	*0.10*	*3.41*	*0.56*	*0.09*	*0.41*	*5.09*	*29.78*	*0.29*	*2.91*

Source: OeNB/WIFO.

Competition matrix for manufactured goods exports from Austria

Competing countries	Destinations											
	Ireland	Italy	Latvia	Lithuania	Luxem-bourg	Malta	Nether-lands	Poland	Portugal	Romania	Slovakia	Slovenia
Market shares in %: calculated for the period from 2013 to 2015												
Belgium	1.88	2.08	2.01	3.11	17.07	0.94	6.13	2.30	2.10	1.38	1.39	1.95
Bulgaria	0.02	0.22	0.17	0.17	0.01	0.29	0.08	0.15	0.04	1.46	0.20	0.30
Croatia	0.01	0.11	0.06	0.05	0.29	0.07	0.04	0.05	0.04	0.10	0.20	2.61
Cyprus	0.07	0.00	0.04	0.13	0.00	0.64	0.04	0.00	0.00	0.01	0.04	0.01
Czechia	0.55	0.57	1.57	1.93	0.62	0.36	0.88	2.82	0.56	1.82	12.75	1.94
Denmark	0.61	0.14	1.47	1.30	0.17	0.37	0.50	0.57	0.16	0.25	0.29	0.23
Estonia	0.02	0.01	4.51	1.90	0.02	0.02	0.03	0.07	0.01	0.02	0.03	0.02
Finland	0.25	0.13	1.74	1.04	0.10	0.22	0.65	0.48	0.13	0.16	0.14	0.24
France	2.11	3.08	1.50	1.70	6.57	4.26	2.88	2.71	4.47	3.81	3.37	2.82
Germany	6.24	6.26	9.67	10.02	19.70	5.50	13.02	16.34	8.69	11.34	15.66	14.08
Greece	0.04	0.14	0.07	0.07	0.02	0.59	0.06	0.09	0.11	0.58	0.04	0.09
Hungary	0.19	0.41	0.87	0.71	0.39	0.10	0.53	1.20	0.32	3.48	5.10	2.28
Ireland	46.63	0.27	0.10	0.14	0.36	0.19	0.90	0.36	0.43	0.42	0.09	0.15
Italy	1.23	69.11	2.90	3.30	2.25	10.98	1.94	4.05	4.14	6.92	3.42	9.98
Latvia	0.01	0.01	27.27	5.04	0.05	0.04	0.02	0.14	0.01	0.02	0.07	0.03
Lithuania	0.08	0.03	7.56	35.61	0.02	0.04	0.08	0.32	0.09	0.07	0.09	0.06
Luxembourg	0.05	0.05	0.08	0.05	26.34	0.10	0.13	0.10	0.04	0.05	0.07	0.11
Malta	0.01	0.01	0.00	0.01	0.00	11.08	0.01	0.01	0.01	0.03	0.01	0.00
Netherlands	2.95	1.77	2.34	2.42	4.07	1.82	30.93	3.27	2.72	1.75	1.83	2.21
Poland	0.44	0.83	8.57	8.40	0.91	0.55	1.24	46.03	0.71	2.33	4.78	1.74
Portugal	0.22	0.16	0.14	0.16	0.21	0.22	0.32	0.16	47.00	0.33	0.18	0.11
Romania	0.11	0.70	0.16	0.19	0.08	0.12	0.27	0.52	0.16	48.58	1.24	0.84
Slovakia	0.13	0.39	1.16	0.63	0.35	0.17	0.39	2.01	0.24	1.53	33.29	1.77
Slovenia	0.04	0.25	0.26	0.29	0.10	0.05	0.09	0.30	0.08	0.38	0.54	32.29
Spain	1.19	1.59	0.77	0.90	1.23	1.30	1.07	1.42	17.25	1.68	0.93	1.29
Sweden	0.44	0.35	2.21	2.38	0.47	0.25	1.11	1.08	0.41	0.28	0.31	0.36
Australia	0.04	0.02	0.03	0.01	0.02	0.01	0.09	0.01	0.01	0.03	0.00	0.03
Bosnia and Herzegovina	0.00	0.07	0.00	0.00	0.15	0.01	0.02	0.01	0.00	0.06	0.08	1.10
Brazil	0.33	0.14	0.03	0.06	0.08	0.03	0.96	0.04	0.29	0.04	0.03	0.05
Canada	0.36	0.12	0.35	0.20	0.47	5.21	0.35	0.09	0.15	0.05	0.03	0.07
Chile	0.00	0.12	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00
China	2.80	2.96	7.62	5.62	9.01	24.48	12.20	4.64	3.01	2.87	3.60	6.40
Hong Kong	0.28	0.34	0.65	0.34	0.57	0.20	1.23	0.35	0.29	0.29	0.31	0.21
Iceland	0.00	0.01	0.00	0.00	0.00	0.00	0.26	0.00	0.01	0.00	0.01	0.00
India	0.56	0.45	0.52	0.24	0.04	1.09	0.67	0.32	0.64	0.30	0.16	0.68
Iran	0.00	0.04	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.00	0.00	0.00
Israel	0.12	0.10	0.28	0.15	0.09	2.01	0.39	0.07	0.12	0.11	0.03	0.38
Japan	1.26	0.36	0.30	0.22	1.16	1.91	2.44	0.54	0.39	0.29	0.34	0.29
Malaysia	0.15	0.07	0.28	0.14	0.03	0.45	1.00	0.13	0.06	0.07	0.12	0.35
Mexico	0.22	0.08	0.01	0.10	0.07	0.00	0.21	0.06	0.04	0.06	0.02	0.01
New Zealand	0.02	0.02	0.01	0.01	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.01
Norway	0.33	0.05	0.26	0.36	0.13	0.58	0.59	0.30	0.10	0.14	0.03	0.03
Russian Federation	0.18	0.34	4.71	3.57	0.02	0.37	1.71	0.51	0.14	0.25	0.48	0.24
Saudi Arabia	0.01	0.09	0.01	0.01	0.00	0.89	0.09	0.12	0.04	0.01	0.00	0.02
Serbia	0.01	0.25	0.03	0.08	0.03	0.03	0.02	0.09	0.03	0.34	0.25	1.17
Singapore	0.50	0.05	0.07	0.07	0.08	0.83	1.24	0.07	0.05	0.06	0.04	0.09
South Africa	0.06	0.06	0.01	0.06	0.09	0.13	0.17	0.04	0.04	0.03	0.00	0.06
South Korea	0.42	0.37	0.62	0.77	1.44	12.74	0.54	1.17	0.47	0.50	5.08	5.18
Switzerland	1.09	1.41	0.86	0.63	0.90	0.41	0.98	0.74	0.98	0.75	0.68	1.45
Taiwan	0.21	0.19	0.81	0.45	0.07	0.30	0.86	0.26	0.21	0.13	0.41	0.45
Thailand	0.43	0.11	0.16	0.10	0.02	0.14	0.77	0.14	0.14	0.10	0.19	0.13
Turkey	0.43	0.64	0.97	1.22	0.19	1.82	0.50	0.70	0.60	2.51	0.57	2.36
Ukraine	0.00	0.17	0.71	0.57	0.02	0.02	0.07	0.47	0.07	0.32	0.33	0.04
United Arab Emirates	0.01	0.06	0.08	0.05	0.15	0.19	0.22	0.03	0.03	0.02	0.00	0.01
United Kingdom	17.88	1.30	1.66	1.51	1.32	5.12	3.33	1.73	1.57	1.33	0.84	1.03
USA	6.78	1.32	1.75	1.80	2.40	0.72	5.56	0.80	0.53	0.56	0.31	0.59
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Austria's single export weights	*0.42*	*5.16*	*0.12*	*0.14*	*0.15*	*0.03*	*1.61*	*3.20*	*0.25*	*1.54*	*1.93*	*1.43*

Source: OeNB/WIFO.

Competition matrix for manufactured goods exports from Austria

Competing countries	Destinations											
	Spain	Sweden	Australia	Bosnia and Herze-govina	Brazil	Canada	Chile	China	Hong Kong	Iceland	India	Iran
Market shares in %: calculated for the period from 2013 to 2015												
Belgium	1.81	2.57	0.62	0.77	0.39	0.33	0.68	0.07	0.43	1.82	0.88	0.21
Bulgaria	0.06	0.06	0.01	0.57	0.00	0.01	0.01	0.01	0.01	0.03	0.00	0.05
Croatia	0.03	0.03	0.00	7.91	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01
Cyprus	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Czechia	0.73	1.06	0.18	1.56	0.04	0.04	0.10	0.02	0.05	1.12	0.05	0.02
Denmark	0.23	3.19	0.17	0.17	0.08	0.08	0.28	0.02	0.04	8.13	0.02	0.05
Estonia	0.02	1.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00
Finland	0.16	2.04	0.16	0.05	0.06	0.07	0.35	0.02	0.03	0.86	0.04	0.03
France	5.38	2.29	0.83	1.24	0.58	0.44	1.12	0.17	0.74	1.70	0.28	0.41
Germany	7.37	10.44	2.92	11.45	1.39	1.64	4.00	0.84	0.96	9.43	0.93	1.43
Greece	0.08	0.05	0.03	0.32	0.00	0.01	0.02	0.00	0.01	0.05	0.00	0.01
Hungary	0.54	0.46	0.10	3.14	0.04	0.04	0.08	0.02	0.04	0.28	0.02	0.02
Ireland	0.71	0.39	0.26	0.19	0.03	0.13	0.13	0.01	0.08	0.65	0.05	0.05
Italy	3.76	1.83	1.19	8.79	0.60	0.49	1.49	0.12	0.96	2.93	0.31	1.00
Latvia	0.01	0.18	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00
Lithuania	0.04	0.38	0.01	0.03	0.00	0.01	0.00	0.00	0.01	0.54	0.00	0.00
Luxembourg	0.05	0.09	0.01	0.01	0.01	0.02	0.01	0.00	0.01	0.06	0.00	0.00
Malta	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.04	0.09	0.00	0.00
Netherlands	2.09	2.98	0.64	1.27	0.28	0.23	0.57	0.06	0.17	8.75	0.16	0.26
Poland	0.85	2.08	0.16	1.84	0.05	0.13	0.11	0.02	0.05	1.35	0.03	0.03
Portugal	1.89	0.19	0.03	0.03	0.04	0.04	0.15	0.01	0.02	0.38	0.01	0.01
Romania	0.25	0.25	0.01	0.99	0.03	0.02	0.03	0.00	0.01	0.06	0.02	0.08
Slovakia	0.35	0.51	0.09	1.17	0.01	0.03	0.05	0.02	0.01	0.30	0.00	0.01
Slovenia	0.07	0.13	0.03	7.78	0.01	0.01	0.03	0.00	0.01	0.06	0.01	0.02
Spain	61.06	0.87	0.54	0.63	0.33	0.17	2.01	0.03	0.12	0.68	0.10	0.22
Sweden	0.37	54.55	0.44	0.30	0.13	0.15	0.48	0.05	0.08	6.03	0.10	0.19
Australia	0.02	0.03	55.91	0.00	0.02	0.05	0.17	0.04	0.17	0.05	0.04	0.00
Bosnia and Herzegovina	0.01	0.02	0.00	32.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Brazil	0.10	0.08	0.09	0.01	85.04	0.09	3.31	0.03	0.06	0.01	0.05	0.01
Canada	0.07	0.12	0.34	0.02	0.18	51.01	0.66	0.05	0.15	0.54	0.11	0.01
Chile	0.05	0.01	0.16	0.00	0.22	0.09	41.73	0.09	0.00	0.28	0.01	0.00
China	3.83	3.03	11.09	1.88	3.49	4.32	18.33	90.61	51.40	3.54	4.55	13.11
Hong Kong	0.36	0.41	1.32	0.26	0.19	0.42	0.77	2.46	12.68	0.20	1.04	0.08
Iceland	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	30.03	0.00	0.00
India	0.53	0.31	0.59	0.20	0.29	0.27	0.90	0.08	1.92	0.52	83.96	1.32
Iran	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.04	0.00	0.00	0.17	67.08
Israel	0.18	0.06	0.16	0.02	0.10	0.08	0.20	0.03	0.84	0.15	0.19	0.00
Japan	0.42	0.52	3.44	0.07	0.50	1.18	2.01	1.10	3.95	1.06	0.66	0.16
Malaysia	0.07	0.13	1.29	0.00	0.09	0.11	0.23	0.20	1.46	0.03	0.34	0.13
Mexico	0.11	0.04	0.18	0.00	0.46	1.30	2.41	0.03	0.08	0.00	0.03	0.00
New Zealand	0.00	0.00	0.87	0.00	0.01	0.02	0.06	0.00	0.02	0.02	0.01	0.00
Norway	0.11	1.20	0.07	0.02	0.04	0.04	0.08	0.02	0.02	6.19	0.01	0.00
Russian Federation	0.14	0.19	0.02	0.28	0.20	0.05	0.03	0.04	0.11	0.50	0.33	0.37
Saudi Arabia	0.14	0.04	0.11	0.00	0.03	0.00	0.08	0.07	0.04	0.04	0.25	0.07
Serbia	0.02	0.02	0.00	8.67	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Singapore	0.06	0.04	1.90	0.02	0.19	0.14	0.09	0.42	5.37	0.03	0.83	0.09
South Africa	0.09	0.06	0.21	0.01	0.05	0.03	0.08	0.02	0.15	0.06	0.05	0.01
South Korea	0.37	0.36	1.80	0.20	0.87	0.73	2.80	1.33	3.89	0.68	0.96	2.89
Switzerland	1.06	0.62	0.68	0.74	0.23	0.50	0.37	0.09	1.20	0.46	0.18	0.28
Taiwan	0.17	0.26	0.81	0.02	0.16	0.35	0.43	0.76	5.49	0.17	0.27	0.47
Thailand	0.12	0.19	2.59	0.02	0.19	0.12	0.81	0.16	1.64	0.04	0.41	0.15
Turkey	0.76	0.47	0.11	3.47	0.07	0.08	0.27	0.01	0.05	0.75	0.03	2.13
Ukraine	0.03	0.03	0.01	0.07	0.01	0.01	0.00	0.00	0.00	0.01	0.03	0.10
United Arab Emirates	0.05	0.01	0.07	0.03	0.01	0.02	0.07	0.02	0.48	0.03	0.64	7.27
United Kingdom	1.94	2.72	1.60	0.44	0.37	0.76	0.91	0.16	1.11	6.46	0.49	0.08
USA	1.21	1.40	6.17	0.27	2.87	34.12	11.47	0.65	3.84	2.15	1.30	0.06
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Austria's single export weights	*1.76*	*1.17*	*0.62*	*0.26*	*0.62*	*0.87*	*0.14*	*2.75*	*0.46*	*0.02*	*0.55*	*0.19*

Source: OeNB/WIFO.

Competition matrix for manufactured goods exports from Austria

Competing countries	Israel	Japan	Malaysia	Mexico	New Zealand	Norway	Russian Federation	Saudi Arabia	Serbia	Singapore	South Africa	South Korea
Market shares in %: calculated for the period from 2013 to 2015												
Belgium	2.95	0.16	0.20	0.21	0.43	1.39	0.61	0.83	1.01	0.41	1.07	0.11
Bulgaria	0.06	0.00	0.01	0.00	0.01	0.03	0.07	0.02	1.44	0.01	0.02	0.00
Croatia	0.04	0.00	0.00	0.00	0.00	0.05	0.04	0.02	1.88	0.00	0.01	0.00
Cyprus	0.08	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.01	0.04	0.00	0.00
Czechia	0.74	0.03	0.06	0.10	0.13	0.56	0.63	0.21	1.73	0.08	0.33	0.04
Denmark	0.13	0.03	0.04	0.06	0.20	3.91	0.12	0.15	0.44	0.15	0.21	0.05
Estonia	0.01	0.00	0.00	0.02	0.00	0.38	0.25	0.01	0.02	0.00	0.01	0.00
Finland	0.11	0.03	0.06	0.05	0.11	1.26	0.61	0.16	0.15	0.09	0.23	0.07
France	1.48	0.29	0.85	0.53	1.11	1.14	0.95	1.41	1.48	1.78	1.41	0.41
Germany	4.70	0.88	1.91	1.93	2.32	7.01	4.53	4.47	9.32	2.48	7.23	1.44
Greece	0.16	0.00	0.00	0.01	0.02	0.02	0.03	0.04	0.81	0.02	0.03	0.00
Hungary	0.37	0.03	0.04	0.10	0.08	0.18	0.31	0.07	3.84	0.08	0.23	0.03
Ireland	0.77	0.13	0.08	0.22	0.17	0.20	0.06	0.37	0.28	0.23	0.19	0.04
Italy	2.83	0.26	0.42	0.65	0.86	1.28	1.44	2.08	7.96	0.73	1.42	0.36
Latvia	0.01	0.00	0.00	0.00	0.01	0.20	0.10	0.00	0.02	0.00	0.01	0.00
Lithuania	0.02	0.00	0.00	0.00	0.01	0.48	0.56	0.01	0.06	0.00	0.01	0.00
Luxembourg	0.02	0.00	0.00	0.01	0.01	0.05	0.02	0.02	0.03	0.01	0.04	0.00
Malta	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.09	0.00	0.00
Netherlands	1.60	0.13	0.30	0.18	0.52	2.51	0.76	1.00	1.54	0.74	1.18	0.33
Poland	0.40	0.02	0.06	0.09	0.12	2.50	0.99	0.15	3.17	0.27	0.38	0.04
Portugal	0.12	0.00	0.01	0.04	0.03	0.10	0.03	0.06	0.04	0.02	0.10	0.01
Romania	0.16	0.00	0.01	0.03	0.01	0.54	0.21	0.07	2.11	0.02	0.11	0.03
Slovakia	0.24	0.01	0.01	0.03	0.06	0.18	0.34	0.07	1.58	0.01	0.07	0.01
Slovenia	0.05	0.00	0.00	0.01	0.01	0.06	0.15	0.03	3.74	0.01	0.03	0.00
Spain	1.57	0.08	0.19	0.68	0.51	0.66	0.32	1.23	0.65	0.22	0.94	0.08
Sweden	0.35	0.07	0.12	0.11	0.26	10.10	0.35	0.54	0.57	0.27	0.61	0.09
Australia	0.09	0.08	0.62	0.03	8.90	0.07	0.01	0.39	0.00	0.47	0.25	0.15
Bosnia and Herzegovina	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.84	0.00	0.00	0.00
Brazil	0.13	0.06	0.04	0.59	0.05	0.05	0.02	0.12	0.02	0.44	0.63	0.06
Canada	0.33	0.07	0.17	0.58	0.46	0.26	0.09	0.34	0.04	0.26	0.24	0.07
Chile	0.00	0.01	0.03	0.10	0.05	0.01	0.00	0.01	0.00	0.00	0.06	0.14
China	8.87	5.68	14.23	5.18	8.09	2.05	5.82	9.05	1.80	14.85	10.82	7.17
Hong Kong	2.64	0.72	1.22	0.58	1.02	0.23	0.28	0.39	0.23	2.46	0.63	0.60
Iceland	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
India	2.46	0.11	0.98	0.42	0.48	0.24	0.21	1.51	0.25	1.50	2.20	0.20
Iran	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.01	0.00	0.01	0.01
Israel	40.33	0.03	0.48	0.07	0.11	0.04	0.07	0.00	0.06	0.23	0.22	0.04
Japan	1.17	84.98	4.17	1.68	3.41	0.81	1.09	3.18	0.08	4.66	2.09	3.43
Malaysia	0.00	0.42	51.98	0.24	0.82	0.19	0.06	0.35	0.01	6.77	0.34	0.29
Mexico	0.11	0.05	0.05	52.14	0.12	0.01	0.03	0.19	0.00	0.14	0.11	0.05
New Zealand	0.02	0.04	0.04	0.02	57.10	0.01	0.00	0.01	0.00	0.06	0.04	0.02
Norway	0.02	0.02	0.12	0.01	0.04	51.89	0.03	0.04	0.04	0.35	0.06	0.16
Russian Federation	0.97	0.08	0.08	0.15	0.02	0.18	73.61	0.13	1.35	0.06	0.04	0.08
Saudi Arabia	0.00	0.03	0.41	0.00	0.22	0.00	0.00	50.82	0.00	1.06	0.32	0.08
Serbia	0.01	0.00	0.00	0.00	0.00	0.01	0.09	0.00	45.77	0.00	0.00	0.00
Singapore	0.56	0.62	9.17	0.18	1.87	0.27	0.06	0.38	0.02	37.23	0.31	1.08
South Africa	0.41	0.15	0.10	0.02	0.13	0.02	0.02	0.12	0.00	0.12	56.64	0.05
South Korea	1.43	0.95	2.03	1.74	1.46	2.02	1.10	3.94	0.28	4.08	1.11	79.03
Switzerland	1.24	0.28	0.28	0.27	0.36	0.67	0.35	1.10	0.97	1.20	0.45	0.22
Taiwan	0.64	0.77	2.23	0.32	0.76	0.18	0.16	0.73	0.04	5.26	0.49	0.95
Thailand	0.67	0.69	2.85	0.36	2.00	0.16	0.11	1.25	0.01	2.10	1.28	0.23
Turkey	2.80	0.01	0.04	0.04	0.11	0.37	0.54	1.19	2.87	0.07	0.30	0.02
Ukraine	0.25	0.00	0.02	0.02	0.00	0.02	1.05	0.16	0.21	0.04	0.01	0.01
United Arab Emirates	0.00	0.02	0.13	0.00	0.10	0.09	0.06	1.91	0.05	0.38	0.13	0.03
United Kingdom	1.94	0.28	0.73	0.26	1.61	3.45	0.76	2.61	0.80	1.85	1.95	0.35
USA	13.94	1.68	3.40	29.93	3.72	1.86	0.86	7.02	0.36	6.57	3.40	2.34
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Austria's single export weights	*0.22*	*1.00*	*0.41*	*0.57*	*0.11*	*0.41*	*2.42*	*0.59*	*0.40*	*0.34*	*0.42*	*0.67*

Source: OeNB/WIFO.

Competition matrix for manufactured goods exports from Austria

Competing countries	Destinations									
	Switzer-land	Taiwan	Thailand	Turkey	Ukraine	United Arab Emirates	United Kingdom	USA	Rest of the world	Double export weight
	Market shares in %: calculated for the period from 2013 to 2015									
Belgium	1.67	0.16	0.34	1.11	1.04	1.57	3.76	0.38	1.35	2.53
Bulgaria	0.06	0.01	0.01	0.28	0.22	0.02	0.06	0.01	0.12	0.34
Croatia	0.05	0.00	0.00	0.02	0.05	0.01	0.02	0.00	0.09	0.47
Cyprus	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.00	0.04	0.02
Czechia	0.86	0.04	0.05	0.45	1.66	0.30	1.02	0.06	0.65	2.81
Denmark	0.26	0.04	0.06	0.12	0.34	0.13	0.48	0.08	0.39	0.66
Estonia	0.01	0.00	0.00	0.01	0.17	0.01	0.03	0.00	0.03	0.08
Finland	0.17	0.04	0.06	0.17	0.42	0.10	0.27	0.07	0.31	0.55
France	4.40	0.36	0.65	1.66	1.27	1.78	3.71	0.53	3.41	5.18
Germany	17.10	1.66	1.46	5.43	7.27	5.67	11.14	2.07	7.72	23.56
Greece	0.04	0.00	0.01	0.16	0.07	0.11	0.10	0.01	0.14	0.27
Hungary	0.30	0.03	0.02	0.43	2.53	0.19	0.47	0.06	0.45	1.57
Ireland	2.36	0.03	0.06	0.16	0.08	0.16	1.24	0.46	0.24	0.75
Italy	6.49	0.26	0.50	2.28	2.43	2.49	2.76	0.59	3.31	6.66
Latvia	0.01	0.00	0.00	0.01	0.12	0.02	0.03	0.00	0.04	0.08
Lithuania	0.03	0.00	0.00	0.01	0.46	0.01	0.08	0.01	0.15	0.16
Luxembourg	0.06	0.00	0.01	0.03	0.02	0.02	0.06	0.01	0.04	0.13
Malta	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.03	0.02
Netherlands	1.71	0.69	0.30	1.14	1.27	1.02	3.73	0.27	1.47	3.14
Poland	0.55	0.03	0.05	0.66	5.40	0.32	1.38	0.07	0.66	3.19
Portugal	0.16	0.01	0.01	0.09	0.03	0.06	0.40	0.03	0.45	0.41
Romania	0.12	0.01	0.01	0.41	0.64	0.07	0.31	0.02	0.30	1.27
Slovakia	0.46	0.01	0.01	0.24	0.65	0.07	0.49	0.03	0.36	1.52
Slovenia	0.15	0.00	0.01	0.06	0.38	0.03	0.07	0.01	0.19	0.78
Spain	1.31	0.11	0.14	1.24	0.49	0.72	1.96	0.15	2.03	2.44
Sweden	0.40	0.10	0.20	0.32	0.40	0.29	0.76	0.16	0.46	1.28
Australia	0.09	0.21	0.40	0.02	0.01	0.34	0.21	0.09	0.38	0.43
Bosnia and Herzegovina	0.02	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.05	0.15
Brazil	0.44	0.05	0.13	0.10	0.08	0.15	0.13	0.29	2.19	0.76
Canada	0.14	0.11	0.12	0.07	0.10	0.32	0.38	3.20	0.46	0.80
Chile	0.05	0.24	0.03	0.05	0.00	0.01	0.01	0.07	0.40	0.11
China	1.12	8.56	10.37	4.07	8.54	14.44	6.92	6.68	24.88	8.16
Hong Kong	1.25	1.86	1.93	0.22	0.27	2.32	0.88	0.76	1.99	0.81
Iceland	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02
India	0.34	0.20	0.85	0.73	0.50	8.38	1.03	0.59	3.06	1.08
Iran	0.00	0.04	0.03	0.28	0.02	0.41	0.01	0.00	0.53	0.16
Israel	0.48	0.15	0.15	0.49	0.41	0.01	0.48	0.31	0.43	0.29
Japan	0.71	7.36	9.48	0.47	0.55	3.49	1.15	2.14	5.16	2.10
Malaysia	0.08	0.83	3.01	0.13	0.08	1.25	0.27	0.30	1.12	0.52
Mexico	0.16	0.05	0.10	0.03	0.02	0.12	0.13	4.45	1.11	0.77
New Zealand	0.01	0.02	0.03	0.00	0.00	0.03	0.03	0.02	0.07	0.08
Norway	0.08	0.01	0.01	0.05	0.04	0.10	0.31	0.04	0.14	0.36
Russian Federation	0.38	0.30	0.13	1.16	9.91	0.35	0.11	0.09	1.93	2.23
Saudi Arabia	0.01	0.23	0.20	0.42	0.06	2.30	0.10	0.02	1.05	0.41
Serbia	0.03	0.00	0.00	0.04	0.13	0.00	0.02	0.01	0.09	0.32
Singapore	0.45	2.93	4.14	0.10	0.04	1.90	0.34	0.38	3.29	0.66
South Africa	0.49	0.08	0.12	0.05	0.02	0.35	0.31	0.10	1.38	0.44
South Korea	0.31	2.40	2.15	1.36	0.60	2.43	0.76	1.11	5.98	1.66
Switzerland	46.00	0.36	0.40	0.42	0.55	1.27	1.52	0.48	1.24	3.61
Taiwan	0.16	65.64	1.78	0.34	0.21	0.61	0.50	0.57	1.68	0.67
Thailand	0.32	0.62	57.23	0.20	0.11	1.15	0.34	0.34	2.56	0.54
Turkey	0.23	0.01	0.05	70.05	2.21	1.26	1.09	0.09	2.41	1.46
Ukraine	0.01	0.01	0.01	0.48	46.05	0.08	0.03	0.01	0.52	0.35
United Arab Emirates	0.49	0.06	0.19	0.21	0.08	32.10	0.29	0.04	2.17	0.40
United Kingdom	3.04	0.28	0.69	1.02	0.83	3.49	44.07	0.94	1.80	3.29
USA	4.35	3.82	2.32	0.92	1.10	6.12	4.18	71.81	7.48	7.49
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Austria's single export weights	*5.11*	*0.32*	*0.24*	*1.03*	*0.40*	*0.59*	*3.26*	*6.58*	*4.05*	*100.00*

Source: OeNB/WIFO.

Comparison of the weights for Austrian manufactured goods across different calculation periods

Competing countries	1998 to 2000				2001 to 2003				2004 to 2006			
	Austrian exports (single weights)	Austrian exports (double weights)	Austrian imports	Total	Austrian exports (single weights)	Austrian exports (double weights)	Austrian imports	Total	Austrian exports (single weights)	Austrian exports (double weights)	Austrian imports	Total
	In %											
Belgium	1.82	2.77	2.21	2.48	1.72	2.88	1.89	2.38	1.73	2.96	1.71	2.35
Bulgaria	0.34	0.19	0.11	0.15	0.38	0.20	0.17	0.18	0.52	0.28	0.28	0.28
Croatia	0.98	0.51	0.34	0.42	1.26	0.62	0.50	0.56	1.35	0.66	0.65	0.65
Cyprus	0.05	0.02	0.00	0.01	0.09	0.02	0.00	0.01	0.04	0.01	0.01	0.01
Czechia	2.78	2.14	2.13	2.14	3.12	2.39	2.72	2.56	3.22	2.63	3.11	2.86
Denmark	0.86	0.80	0.64	0.72	0.77	0.76	0.59	0.68	0.74	0.69	0.55	0.63
Estonia	0.05	0.04	0.03	0.03	0.08	0.06	0.03	0.04	0.18	0.09	0.03	0.06
Finland	0.62	0.91	1.12	1.02	0.59	0.86	1.11	0.99	0.58	0.81	1.06	0.93
France	4.75	6.61	5.22	5.89	4.69	6.52	4.23	5.36	4.12	5.87	4.17	5.04
Germany	36.82	29.95	43.28	36.86	33.43	27.23	42.28	34.85	31.93	25.25	43.07	33.89
Greece	0.45	0.34	0.15	0.24	0.59	0.41	0.13	0.27	0.52	0.38	0.12	0.25
Hungary	4.93	2.50	3.02	2.77	4.46	2.22	3.24	2.74	3.62	1.93	2.38	2.15
Ireland	0.32	0.82	0.75	0.78	0.31	0.90	1.27	1.08	0.48	0.80	0.86	0.83
Italy	6.85	8.74	7.80	8.25	6.93	8.83	7.22	8.02	7.15	8.60	7.07	7.85
Latvia	0.06	0.03	0.02	0.03	0.10	0.05	0.03	0.04	0.13	0.07	0.02	0.05
Lithuania	0.08	0.06	0.04	0.05	0.11	0.09	0.04	0.06	0.15	0.12	0.04	0.08
Luxembourg	0.20	0.18	0.17	0.18	0.19	0.18	0.17	0.17	0.23	0.19	0.23	0.21
Malta	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02	0.11	0.02	0.01	0.02
Netherlands	2.45	2.40	2.95	2.68	2.26	2.46	2.78	2.62	1.83	2.52	2.74	2.62
Poland	1.69	1.61	0.76	1.17	1.80	1.82	0.96	1.39	2.24	2.21	1.12	1.68
Portugal	0.49	0.58	0.56	0.57	0.50	0.57	0.61	0.59	0.45	0.48	0.49	0.48
Romania	0.68	0.50	0.42	0.46	1.24	0.69	0.74	0.72	1.79	0.96	0.94	0.95
Slovakia	1.11	0.78	1.07	0.93	1.45	0.90	1.46	1.18	1.67	1.00	1.46	1.22
Slovenia	1.68	0.93	1.00	0.97	1.74	0.98	1.19	1.09	1.79	0.89	1.19	1.04
Spain	3.06	3.15	1.41	2.25	2.87	3.15	1.53	2.33	2.99	3.15	1.57	2.38
Sweden	1.22	1.58	1.49	1.53	1.12	1.44	1.42	1.43	1.10	1.42	1.46	1.44
Australia	0.50	0.41	0.03	0.22	0.54	0.44	0.05	0.24	0.67	0.52	0.07	0.30
Bosnia and Herzegovina	–	–	–	–	0.21	0.10	0.04	0.07	0.24	0.12	0.12	0.12
Brazil	0.42	0.55	0.13	0.33	0.31	0.46	0.10	0.28	0.30	0.58	0.18	0.39
Canada	0.76	0.68	0.55	0.61	0.85	0.78	0.47	0.62	1.00	0.91	0.43	0.68
Chile	0.05	0.07	0.01	0.04	0.05	0.07	0.01	0.04	0.08	0.11	0.01	0.06
China	0.74	1.71	1.66	1.68	1.41	2.99	2.26	2.62	1.42	4.27	3.65	3.97
Hong Kong	0.57	0.88	0.34	0.60	0.70	0.88	0.34	0.61	0.52	0.83	0.21	0.53
Iceland	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.04	0.03	0.00	0.02
India	0.17	0.38	0.24	0.30	0.22	0.48	0.27	0.37	0.37	0.67	0.34	0.51
Iran	0.32	0.30	0.03	0.16	0.37	0.30	0.02	0.16	0.37	0.27	0.02	0.14
Israel	0.23	0.29	0.15	0.22	0.17	0.26	0.12	0.19	0.13	0.23	0.09	0.16
Japan	1.03	3.14	2.97	3.05	1.02	2.88	2.66	2.77	1.07	2.87	2.52	2.70
Malaysia	0.13	0.35	0.31	0.33	0.13	0.37	0.62	0.50	0.25	0.43	0.33	0.38
Mexico	0.23	0.41	0.14	0.27	0.21	0.44	0.19	0.31	0.24	0.49	0.16	0.33
New Zealand	0.07	0.05	0.01	0.03	0.08	0.06	0.01	0.04	0.09	0.07	0.02	0.05
Norway	0.47	0.44	0.15	0.29	0.40	0.40	0.12	0.26	0.42	0.41	0.18	0.30
Russian Federation	0.92	1.03	0.29	0.64	1.45	1.35	0.28	0.81	2.08	1.95	0.27	1.13
Saudi Arabia	0.27	0.17	0.01	0.09	0.25	0.18	0.01	0.10	0.36	0.26	0.01	0.14
Serbia	–	–	–	–	–	–	–	–	0.17	0.16	0.05	0.11
Singapore	0.28	0.54	0.20	0.37	0.29	0.61	0.27	0.44	0.27	0.75	0.17	0.47
South Africa	0.38	0.41	0.07	0.23	0.47	0.50	0.07	0.28	0.56	0.59	0.10	0.35
South Korea	0.34	0.96	0.51	0.73	0.41	1.12	0.73	0.92	0.49	1.44	1.02	1.24
Switzerland	6.24	3.68	3.39	3.53	6.04	3.34	3.61	3.47	5.26	2.72	3.69	3.19
Taiwan	0.37	0.90	0.94	0.92	0.31	0.84	0.82	0.83	0.33	0.78	0.70	0.74
Thailand	0.20	0.31	0.26	0.28	0.15	0.35	0.28	0.32	0.15	0.39	0.37	0.38
Turkey	0.78	0.94	0.54	0.73	0.73	1.01	0.78	0.89	0.86	1.23	0.88	1.06
Ukraine	0.29	0.32	0.12	0.22	0.41	0.43	0.17	0.30	0.55	0.54	0.20	0.37
United Arab Emirates	0.22	0.10	0.01	0.05	0.32	0.23	0.01	0.12	0.34	0.24	0.03	0.14
United Kingdom	4.71	5.47	3.37	4.38	4.95	5.16	2.67	3.90	4.43	4.51	2.28	3.43
USA	4.93	7.32	6.86	7.08	5.71	7.67	6.72	7.19	6.28	7.63	5.60	6.65
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: OeNB/WIFO.

Comparison of the weights for Austrian manufactured goods across different calculation periods

Competing countries	2007 to 2009				2010 to 2012				2013 to 2015			
	Austrian exports (single weights)	Austrian exports (double weights)	Austrian imports	Total	Austrian exports (single weights)	Austrian exports (double weights)	Austrian imports	Total	Austrian exports (single weights)	Austrian exports (double weights)	Austrian imports	Total
	In %											
Belgium	1.67	3.04	1.79	2.43	1.59	2.63	1.81	2.24	1.47	2.53	1.72	2.14
Bulgaria	0.68	0.38	0.29	0.34	0.56	0.41	0.35	0.38	0.54	0.34	0.35	0.35
Croatia	1.34	0.63	0.61	0.62	0.97	0.60	0.57	0.59	0.97	0.47	0.45	0.46
Cyprus	0.06	0.01	0.02	0.02	0.10	0.02	0.04	0.03	0.10	0.02	0.03	0.03
Czechia	3.63	2.86	3.31	3.08	3.69	2.91	3.58	3.23	3.56	2.81	3.68	3.22
Denmark	0.73	0.70	0.48	0.59	0.59	0.59	0.45	0.52	0.58	0.66	0.43	0.55
Estonia	0.11	0.07	0.03	0.05	0.09	0.06	0.03	0.05	0.09	0.08	0.03	0.05
Finland	0.57	0.79	0.60	0.70	0.46	0.61	0.49	0.55	0.42	0.55	0.40	0.48
France	4.07	5.59	3.59	4.63	4.87	5.96	3.32	4.69	5.30	5.18	3.13	4.21
Germany	31.65	23.97	42.72	33.00	32.06	23.95	41.11	32.19	31.04	23.56	39.34	31.07
Greece	0.58	0.41	0.10	0.26	0.38	0.32	0.10	0.22	0.30	0.27	0.10	0.19
Hungary	3.25	1.85	2.21	2.02	2.74	1.66	2.44	2.03	3.03	1.57	2.51	2.02
Ireland	0.26	0.69	0.54	0.62	0.27	0.69	0.55	0.63	0.44	0.75	0.63	0.69
Italy	6.80	8.23	7.08	7.67	5.99	7.20	6.70	6.96	5.38	6.66	6.32	6.50
Latvia	0.15	0.07	0.02	0.05	0.11	0.07	0.02	0.04	0.13	0.08	0.02	0.05
Lithuania	0.14	0.13	0.05	0.09	0.14	0.11	0.05	0.08	0.14	0.16	0.06	0.11
Luxembourg	0.13	0.16	0.17	0.17	0.15	0.15	0.24	0.19	0.15	0.13	0.23	0.18
Malta	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.01	0.02
Netherlands	1.78	2.64	2.72	2.68	1.60	2.73	2.71	2.72	1.68	3.14	2.61	2.89
Poland	2.86	2.61	1.35	2.00	3.04	2.95	1.63	2.32	3.34	3.19	1.96	2.61
Portugal	0.41	0.46	0.37	0.42	0.31	0.42	0.45	0.44	0.26	0.41	0.45	0.43
Romania	2.04	1.15	0.72	0.95	1.64	1.05	0.93	0.99	1.60	1.27	0.97	1.13
Slovakia	1.87	1.13	1.64	1.38	1.91	1.20	1.93	1.55	2.01	1.52	1.81	1.66
Slovenia	1.90	0.84	1.10	0.96	1.57	0.44	1.11	0.76	1.49	0.78	1.14	0.95
Spain	2.73	2.99	1.63	2.33	1.83	2.44	1.73	2.10	1.84	2.44	1.80	2.13
Sweden	1.21	1.44	1.44	1.44	1.26	1.42	1.31	1.37	1.22	1.28	1.11	1.20
Australia	0.70	0.51	0.06	0.29	0.66	0.49	0.04	0.28	0.65	0.43	0.04	0.24
Bosnia and Herzegovina	0.30	0.14	0.19	0.17	0.28	0.11	0.27	0.18	0.27	0.15	0.35	0.25
Brazil	0.64	0.88	0.18	0.55	0.93	1.04	0.16	0.61	0.64	0.76	0.11	0.45
Canada	0.85	0.78	0.45	0.62	0.81	0.78	0.34	0.57	0.91	0.80	0.33	0.58
Chile	0.10	0.13	0.01	0.07	0.14	0.15	0.05	0.10	0.14	0.11	0.04	0.08
China	1.96	6.16	4.99	5.60	2.84	7.80	6.47	7.16	2.87	8.16	7.16	7.68
Hong Kong	0.41	0.81	0.15	0.50	0.55	0.76	0.11	0.45	0.48	0.81	0.08	0.46
Iceland	0.03	0.03	0.01	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02
India	0.59	0.96	0.43	0.71	0.69	1.14	0.53	0.84	0.57	1.08	0.58	0.84
Iran	0.34	0.25	0.01	0.13	0.28	0.23	0.02	0.13	0.19	0.16	0.01	0.09
Israel	0.18	0.26	0.09	0.18	0.22	0.28	0.17	0.23	0.23	0.29	0.14	0.22
Japan	0.82	2.57	2.05	2.32	1.08	2.49	1.95	2.23	1.04	2.10	1.73	1.92
Malaysia	0.28	0.42	0.25	0.34	0.30	0.48	0.30	0.39	0.43	0.52	0.31	0.42
Mexico	0.35	0.56	0.19	0.38	0.44	0.65	0.23	0.45	0.60	0.77	0.21	0.51
New Zealand	0.08	0.07	0.03	0.05	0.07	0.06	0.03	0.05	0.12	0.08	0.02	0.06
Norway	0.60	0.50	0.19	0.35	0.45	0.42	0.19	0.31	0.42	0.36	0.16	0.27
Russian Federation	2.65	2.22	0.31	1.30	2.76	2.46	0.38	1.46	2.52	2.23	0.32	1.32
Saudi Arabia	0.47	0.22	0.02	0.12	0.48	0.32	0.03	0.18	0.62	0.41	0.03	0.23
Serbia	0.53	0.32	0.22	0.27	0.47	0.31	0.21	0.26	0.42	0.32	0.24	0.28
Singapore	0.32	0.72	0.13	0.43	0.34	0.69	0.14	0.43	0.36	0.66	0.11	0.39
South Africa	0.53	0.57	0.10	0.34	0.49	0.54	0.08	0.32	0.44	0.44	0.08	0.27
South Korea	0.54	1.68	0.65	1.19	0.77	1.79	0.63	1.24	0.70	1.66	0.75	1.23
Switzerland	5.01	2.55	4.25	3.37	5.22	3.07	4.47	3.74	5.33	3.61	4.80	4.18
Taiwan	0.23	0.70	0.63	0.66	0.31	0.67	0.57	0.62	0.34	0.67	0.55	0.61
Thailand	0.18	0.48	0.41	0.45	0.25	0.53	0.39	0.46	0.25	0.54	0.46	0.50
Turkey	0.83	1.35	0.86	1.11	1.03	1.40	0.90	1.16	1.07	1.46	1.06	1.27
Ukraine	0.72	0.62	0.21	0.42	0.63	0.54	0.20	0.38	0.42	0.35	0.17	0.26
United Arab Emirates	0.52	0.31	0.02	0.17	0.51	0.30	0.08	0.19	0.62	0.40	0.16	0.29
United Kingdom	3.57	3.57	2.16	2.89	3.27	3.16	1.83	2.52	3.39	3.29	1.95	2.65
USA	5.04	6.82	6.11	6.48	5.78	6.68	5.56	6.14	6.85	7.49	6.76	7.14
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: OeNB/WIFO.