

# Austria's Exports to Eastern Europe: Facts and Forecasts

## Likely Impact of Slowing Exports on Growth in Austria

Christian Ragacs,  
Klaus Vondra<sup>1</sup>

*In 2008, 72.1% of all Austrian goods exports went to the EU-27; thereof, 17.6% went to the Eastern European states that joined the EU in 2004 and 2007, and 24.6% to Eastern Europe at large. While export demand for Austrian goods has declined markedly since the end of 2008, in the context of the international economic crisis, exports to the “new” Member States declined somewhat less than those going to the “old EU.” This article offers a brief overview of the extent and development of Austrian exports to Eastern Europe, the latest growth forecasts for these countries, and their implications for Austria’s growth forecast. The latest forecasts for Eastern Europe, while pessimistic and mixed in line with the global trend, indicate that growth rates – especially in the “new” EU Member States – are still higher (or that recessions are still weaker) on average than in Western Europe. Simulations with the OeNB’s macro model show that the growth setbacks anticipated for Eastern Europe by the latest forecasts are likely to push the decline in Austria’s real GDP growth another 0.7 percentage points below the rate implied by the OeNB’s December 2008 forecast.*

*JEL classification: E17, F15, F47*

*Keywords: Austria, forecast, Eastern Europe, exports*

The current economic and political debate has honed in on the exposure of Austrian banks in Eastern Europe, largely decoupled from the issue of how important those Eastern European countries have come to be for the real economy. To refocus the debate, this article therefore presents an overview of the relative importance of Austrian exports to Eastern Europe and their development in recent decades, of current GDP forecasts for these countries, and of the resulting effects on growth in Austria.<sup>2</sup>

What makes this exercise rather complex is that there is no consistent definition for the region generally referred to as Eastern Europe. Furthermore, the growth forecasts published by various institutions often refer to

entire regions, for which definitions tend to differ, rather than to individual countries. This article uses the latest growth forecasts for Eastern Europe of the *European Bank for Reconstruction and Development (EBRD)*, *The Vienna Institute for International Economic Studies (wiiw)*, *Consensus Economics*, and the *IMF*. For the purpose of our exercise, we divide Eastern Europe into two groups of countries:<sup>3</sup> into the EU-10 countries of Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia; and into the 30 Central, Eastern and Southeastern European (CESEE) as well as Central Asian countries (CESEE+CA) that the literature identifies as Eastern Europe at large.<sup>4</sup> Exact definitions are found in the annex, in

<sup>1</sup> christian.ragacs@oebn.at; klaus.vondra@oebn.at. The authors thank Beate Resch, Martin Schneider, Karin Wagner and Julia Wörz for valuable suggestions and discussions.

<sup>2</sup> For the growth of overall Austrian foreign trade, the annual yearbook of the Research Center for International Economics (FIW, 2008) is recommended.

<sup>3</sup> We use the term Eastern Europe, despite its imprecision, for both Eastern Europe in the narrow and the wider sense.

<sup>4</sup> This group of countries is based on the country sample of the EBRD and includes also Turkey, although this country is counted traditionally neither among the CESEE countries nor the CA countries.

Refereed by:  
Julia Wörz, OeNB

which all regional definitions used in this report are listed.

The importance of Eastern Europe for the Austrian economy has been discussed extensively in economics publications. A broad range of studies have provided evidence on the positive growth and employment effects of the transformation of Eastern Europe (e.g. Breuss, 2006), the results of Austrian direct investments (e.g. Altzinger and Bellak, 2006; Hunya, 2008), and of the expansion of exports in these regions (e.g. Stankovsky, 1998; Fidrmuc, 2005).<sup>5</sup> The focus of this article is on the longer-term development of goods exports to Eastern Europe, the current decline in exports, and the resulting effects on growth for Austria.

The article is structured as follows: Section 1 offers a brief, descriptive overview of the significance and development of exports to Eastern Europe and to individual Eastern European countries, including the decline in exports at the end of 2008 caused by the economic crisis. In section 2, after an overview of current growth forecasts for the CESEE countries we simulate the effects of the predicted growth decline on the Austrian economy with the OeNB's macro model; to establish, among other things, the extent by which the OeNB's December forecast would need to be revised. Section 3 provides a summary and draws conclusions.

## 1 Significance and Development of Exports to Eastern European Countries

### 1.1 Available Data

The national statistical office (Statistics Austria) publishes detailed nominal export data for domestic goods exports at

monthly intervals; the latest figures are from December 2008. Services exports are calculated by the OeNB on a quarterly basis; so far, the data have been calculated up to the third quarter of 2008. Thus, the only data available for the entire year of 2008 are those of goods exports. Since no deflators for exports to the various Eastern European countries or regions are available, it is not possible to determine corresponding real export figures. Moreover, the time series are too short to allow categorizing services exports to target countries.<sup>6</sup>

### 1.2 Significance and Development of Exports to Eastern Europe

The left panel in chart 1 shows the nominal growth of overall goods exports and of exports to Eastern Europe, according to the definition used by Statistics Austria (27 countries). While growth rates declined substantially indeed in 2008 for both total exports and exports to Eastern Europe, they still exceeded growth levels during the dot-com crisis on account of the relatively good performance during the first quarter of 2008. Another striking feature is that growth rates for goods exports to Eastern Europe were greater than those for overall exports from 1988 through, and including, 2008 (with the exception of 1998 and 1999).

The right panel (chart 1) shows the percentage of nominal overall exports and nominal exports to Eastern Europe in nominal GDP, that is, "goods export rates." The rate for all goods exports has risen markedly since the beginning of 1995, i.e. since Austria joined the EU. Access to the Single European Market has facilitated foreign trade, and the European Economic and Mone-

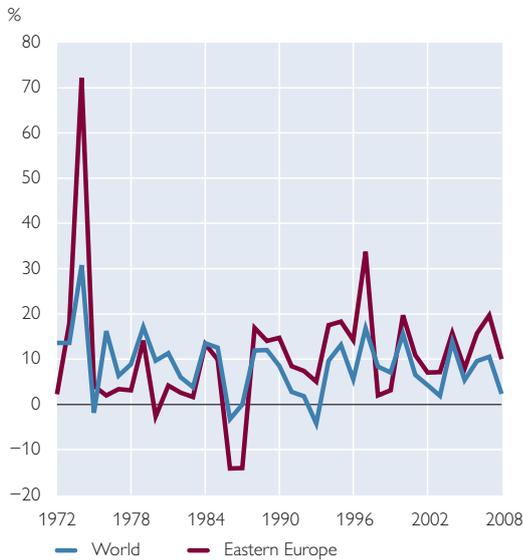
<sup>5</sup> For the growth of all Austrian exports, see Bayerl et al. (2008).

<sup>6</sup> Regionally itemized services data are available up to the first quarter of 1995.

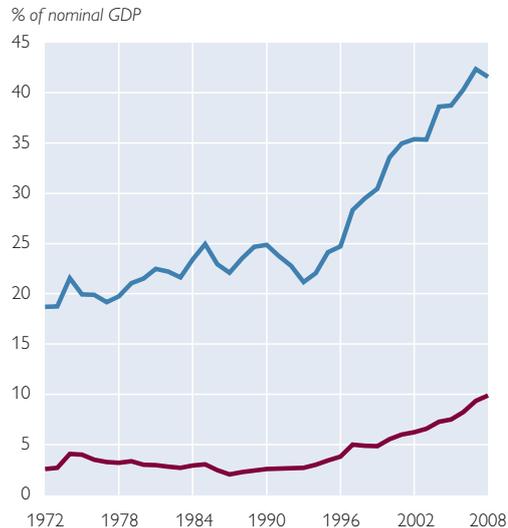
Chart 1

## Development of Goods Exports

Annual Growth of Nominal Goods Exports



Goods Export Rate



Source: Statistics Austria, OeNB; Eastern Europe as defined by Statistics Austria (see annex).

tary Union completed in 1999 has stabilized Austria's trade-weighted exchange rate, thereby creating favorable conditions for exports. However, in 2008, as a result of the crisis, the overall goods export rate declined again for the first time since 1993. The export rate for goods going to Eastern Europe has climbed steadily since 1997, continuing even in 2008.

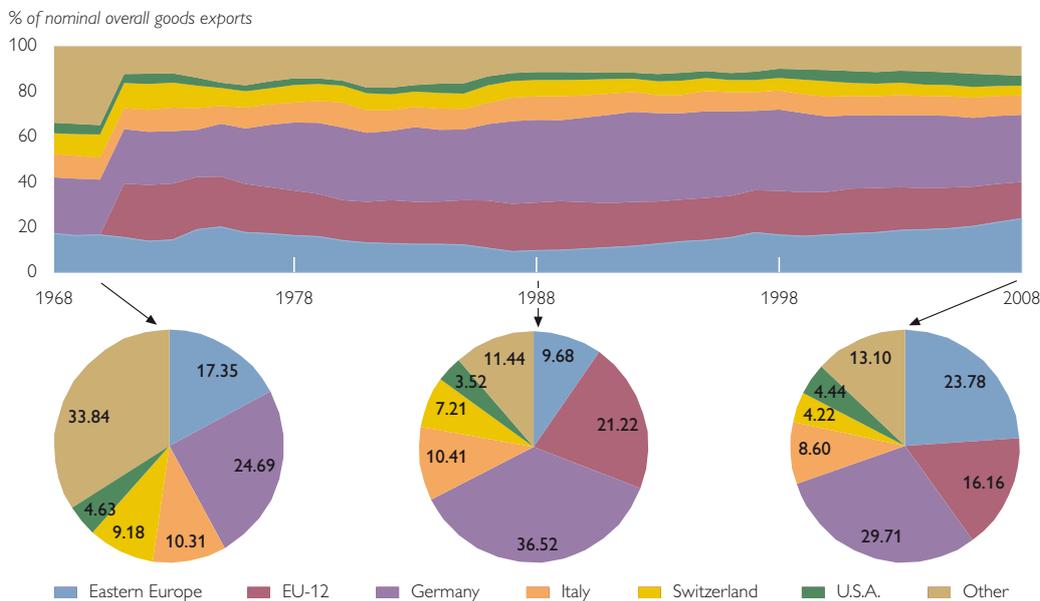
In chart 2, goods exports are subdivided according to the relative importance of the most important target countries or target regions. Over time, exports to Italy and Switzerland have decrease relatively; those to the U.S.A. have increased slightly. Since the transformation of Eastern Europe, Germany's relative importance has declined markedly. The increase in the relative importance of Eastern Europe since its transformation is particularly striking. In 2008, as much as 24.6% of all Austrian goods exports were going to this region (by way of comparison: goods exports to Germany were just under 30%).

The expansion of goods exports to Eastern Europe was in no way a linear development. In the mid-1970s, the percentage of exports was clearly higher than before the Iron Curtain fell, and at 20.1% it had already reached a level that would not be exceeded again until 2006 (20.4%). The historical expansion of exports to Eastern Europe was influenced not only by economic factors but also by myriad economic and political factors. The development of Austrian exports to Eastern Europe since 1955 can be divided roughly into four different phases:

- The time from the end of World War II until the ratification of the Austrian Independence Treaty was influenced by reconstruction activities and, in part, by trade patterns evolving between the two world wars. While in 1937, 33.4% of Austrian exports were still going to the (Southeastern European) countries of the former Austro-Hungarian monarchy, this rate had declined to 19.6% by 1947 (Stankovsky, 1998,

Chart 2

### Goods Exports to Target Countries or Regions



Source: Statistics Austria, OeNB; Eastern Europe as defined by Statistics Austria (see annex).

Note: Steep rise in 1970 due to adjustment of data basis (EU-12 = all "old" EU countries excluding Germany and Italy).

- p. 162). By 1955, the percentage had decreased even further to only 11.3%, though the exports of the Soviet-controlled businesses were not cited in some cases (Stankovsky, 1998, p. 155, for an estimate of the extent of those exports, see WIFO, 1955).
- From the ratification of the Austrian Independence Treaty until the mid-1970s, Austrian exports to Eastern Europe strengthened. Trade relations during this time were influenced by the demand monopoly of Eastern European governments and, as a result, by the political and economic environment. Due to the lack of currency convertibility, trade was essentially restricted to compensation transactions (barter trade), which were settled on a clearing basis. In addition, Austria benefited heavily from its position as a bridgehead between Eastern and Western European countries (Stankovsky, 1967).
  - From 1975 until 1989, when the transformation of Eastern European economies started, the share of Austrian exports to Eastern Europe diminished markedly to just 9.9%. The reason for this, more than anything else, was the financial unsustainability of the Eastern European strategy to debt-finance access to high-technology products (Fidrmuc et al., 2008, p. 469). The debt crisis of the Eastern European countries markedly decreased their demand for imports above all from the 1980s onward (Stankovsky, 1998).
  - The transformation phase after 1989 was characterized by a massive expansion of trade relationships with Eastern Europe, with Austrian exporters quickly turning historical ties and their geographic position into competitive advantages and benefiting from specific government support on top (see the program "Go International," Bhattacharya, 2007).

Currently, Austrian exporters are facing the strongest slump in demand for Austrian exports since the end of World War II – including demand for exports to Eastern Europe, as will be discussed in greater detail below. The degree to which the decline in growth will lead to a shift in the relative importance of the export regions cannot yet be determined.

### 1.3 Clear Shift of Austrian Exports toward Eastern Europe

In 2007, the growth of nominal *services exports* (overall) accelerated to 11%, compared to the previous year (table 1). At 19.7%, nominal services exports to the EU-10 grew at an above-average rate. Austria experienced double-digit growth rates across the board, excluding less robust exports to Latvia and Slovakia. Current account developments over time reflect a structural shift in services exports toward transportation services, knowledge-intensive services, as well as other services. During the last ten years, the importance of knowledge-intensive services doubled from 9% of overall exports (1997) to 18% (2007). The key drivers of growth were architectural, engineering, and other technical services; research and development; electronic data processing and information technologies; as well as legal consultation, auditing, and sales consulting. At the same time, patent-related cross-border trade is severely in deficit. This is bad news insofar that this position is often used as a benchmark for technological progress. In a regional comparison between the EU-15 and the remaining 12 EU countries, strong regional differences in exports become evident: to the EU-15, Austria exports mainly

transportation and tourism services, whereas the EU-10 attract mainly other business services. In the first three quarters of 2008, the growth of Austrian services exports remained positive; however, compared to the entire year of 2007, it declined markedly. Altogether, services grew by 5.6% in the first three quarters of 2008. Overall growth was sustained primarily by the growth of exports to the EU-10, which still amounted to a robust 12.6%. In seven of the ten countries, growth rates were still in the double-digit range. In contrast, growth of exports to the EU-15 slowed to 2.9%. The higher EU-10-related growth rates consequently led to a further shift of the export percentages from the EU-15 to the CESEE+CA countries.

As for Austrian *goods exports*, 72.1% went to the EU in 2008. In this area, the focus has been shifting for years from the “old” EU Member States to those states that became EU members in 2004 and 2007. Since Austria joined the EU, the export share to the “old” EU decreased by 10 percentage points to 54.5% (2008) whereas that of the 12 EU countries rose from 11.3% in 1995 to 17.6% in 2008. For the entire year of 2008, the following countries were among the top 10 target countries for Austrian goods exports: the Czech Republic (nominal export share of 3.7%; rank 5), Hungary (3.6%; rank 6) and Poland (2.8%, rank 8). In the ranking of the foreign trade report, the Czech Republic has advanced strongly in recent years (2007: 3.6%, rank 6; 2006: rank 8). Finally, the share of the Commonwealth of Independent States (CIS) which has grown particularly strongly over the last five years, doubled to almost 3.9% in 2008.

Table 1

**Austrian Exports to Selected Regions in 2007 and 2008**

|                       | 2007               |                               |                    | Q1 to Q3 08                   |                    |                               | 2008               |                               | November 2008      |                               | December 2008      |                               |
|-----------------------|--------------------|-------------------------------|--------------------|-------------------------------|--------------------|-------------------------------|--------------------|-------------------------------|--------------------|-------------------------------|--------------------|-------------------------------|
|                       | Goods              | Services                      | Goods and Services | Goods                         | Services           | Goods and Services            | Goods              | Services                      | Goods              | Services                      | Goods              | Services                      |
|                       | Annual change in % | Share of overall exports in % | Annual change in % | Share of overall exports in % | Annual change in % | Share of overall exports in % | Annual change in % | Share of overall exports in % | Annual change in % | Share of overall exports in % | Annual change in % | Share of overall exports in % |
| <b>Total exports</b>  | <b>10.5</b>        | <b>11.0</b>                   | <b>x</b>           | <b>6.3</b>                    | <b>5.6</b>         | <b>x</b>                      | <b>2.3</b>         | <b>x</b>                      | <b>-14.3</b>       | <b>x</b>                      | <b>-9.0</b>        | <b>x</b>                      |
| Europe, total         | 11.0               | 10.5                          | 84.8               | 6.7                           | 6.3                | 85.3                          | 2.3                | 83.5                          | -15.8              | 82.7                          | -10.4              | 79.8                          |
| EU-27                 | 11.0               | 10.0                          | 73.3               | 6.2                           | 4.4                | 73.4                          | 1.8                | 72.1                          | -16.5              | 71.2                          | -12.1              | 68.1                          |
| EU-15                 | 8.9                | 8.5                           | 57.7               | 3.7                           | 2.9                | 56.9                          | -0.3               | 54.5                          | -17.4              | 53.4                          | -12.9              | 51.0                          |
| New EU Member States  | 18.9               | 18.1                          | 15.7               | 15.0                          | 12.0               | 16.5                          | 8.8                | 17.6                          | -13.5              | 17.8                          | -9.4               | 17.1                          |
| EU-10                 | 20.2               | 19.7                          | 15.5               | 15.0                          | 12.6               | 16.4                          | 8.8                | 17.5                          | -13.6              | 17.7                          | -9.4               | 17.0                          |
| Bulgaria              | 29.9               | 19.6                          | 0.6                | 30.5                          | 18.2               | 0.7                           | 24.5               | 0.8                           | 7.0                | 0.9                           | 13.2               | 1.0                           |
| Estonia               | 36.3               | 124.2                         | 0.1                | 9.2                           | 1.8                | 0.1                           | 1.4                | 0.1                           | -48.4              | 0.1                           | -36.1              | 0.1                           |
| Latvia                | 11.7               | 8.8                           | 0.2                | -17.9                         | 6.3                | 0.1                           | -19.1              | 0.1                           | -32.5              | 0.1                           | -14.6              | 0.1                           |
| Lithuania             | 12.5               | 34.6                          | 0.1                | 2.1                           | 11.1               | 0.1                           | -4.6               | 0.1                           | -28.3              | 0.1                           | -16.6              | 0.1                           |
| Poland                | 25.9               | 28.0                          | 2.4                | 12.3                          | 7.5                | 2.5                           | 8.0                | 2.8                           | -8.0               | 3.0                           | -7.4               | 2.6                           |
| Romania               | 17.6               | 20.3                          | 1.8                | 23.7                          | 13.1               | 2.0                           | 13.6               | 2.1                           | -19.7              | 2.0                           | -9.5               | 2.0                           |
| Slovakia              | 16.3               | 6.6                           | 1.7                | 21.9                          | 17.3               | 1.9                           | 15.3               | 2.0                           | -15.6              | 2.0                           | 6.2                | 2.1                           |
| Slovenia              | 26.9               | 10.1                          | 1.9                | 12.1                          | 4.2                | 1.9                           | 7.4                | 2.2                           | -11.4              | 2.2                           | -10.0              | 2.2                           |
| Czech Republic        | 20.8               | 14.8                          | 3.2                | 16.4                          | 14.4               | 3.4                           | 7.5                | 3.7                           | -18.0              | 3.7                           | -20.1              | 3.3                           |
| Hungary               | 14.2               | 27.3                          | 3.5                | 9.2                           | 15.1               | 3.6                           | 5.0                | 3.6                           | -11.5              | 3.7                           | -10.6              | 3.3                           |
| Malta                 | -78.2              | -6.3                          | 0.1                | -10.5                         | -30.6              | 0.0                           | -8.9               | 0.0                           | 7.3                | 0.0                           | -13.5              | 0.0                           |
| Cyprus                | 23.1               | -19.3                         | 0.1                | 22.4                          | 4.5                | 0.1                           | 19.6               | 0.1                           | 26.8               | 0.1                           | -22.9              | 0.1                           |
| Albania               | 43.7               | 17.4                          | 0.0                | 17.6                          | 10.5               | 0.1                           | 19.3               | 0.0                           | 35.8               | 0.0                           | 77.1               | 0.1                           |
| Croatia               | 12.0               | 0.5                           | 1.2                | 5.8                           | -4.7               | 1.2                           | 3.2                | 1.3                           | -13.4              | 1.3                           | -1.9               | 1.3                           |
| Bosnia-Herzegovina    | 33.0               | 5.8                           | 0.3                | 16.9                          | 6.7                | 0.3                           | 9.1                | 0.3                           | -18.7              | 0.3                           | -19.8              | 0.3                           |
| Macedonia             | 17.2               | 0.0                           | 0.1                | 41.3                          | 75.0               | 0.1                           | 26.1               | 0.1                           | -2.3               | 0.1                           | 40.1               | 0.1                           |
| Serbia                | 18.5               | x                             | x                  | 12.5                          | x                  | x                             | 7.6                | 0.5                           | -12.9              | 0.4                           | 4.6                | 0.7                           |
| Montenegro            | 9.1                | x                             | x                  | 75.5                          | x                  | x                             | 61.2               | 0.1                           | 52.1               | 0.1                           | 15.2               | 0.1                           |
| Belarus               | 32.5               | -4.8                          | 0.1                | 24.8                          | 20.0               | 0.1                           | 34.6               | 0.1                           | 70.3               | 0.1                           | 39.0               | 0.2                           |
| Russia                | 14.7               | 29.9                          | 2.1                | 22.9                          | 55.9               | 2.5                           | 15.0               | 2.5                           | -6.9               | 2.8                           | -12.1              | 2.3                           |
| Ukraine               | 13.1               | 35.3                          | 0.6                | 32.7                          | 42.5               | 0.8                           | 21.9               | 0.8                           | -3.2               | 0.7                           | -35.8              | 0.6                           |
| CIS-Europe            | 19.5               | 31.9                          | 2.9                | 25.0                          | 48.7               | 3.4                           | 16.9               | 3.5                           | -4.7               | 3.6                           | -16.2              | 3.1                           |
| CIS-Asia              | 63.6               | 45.8                          | 0.3                | 29.5                          | 16.0               | 0.4                           | 20.9               | 0.5                           | -15.9              | 0.4                           | 1.3                | 0.5                           |
| Turkey                | 11.7               | 23.0                          | 0.8                | 10.6                          | 8.5                | 0.8                           | 2.4                | 0.8                           | -20.6              | 0.7                           | -26.1              | 0.7                           |
| Mongolia              | 39.7               | 0.0                           | 0.0                | 103.4                         | 0.0                | 0.0                           | 97.4               | 0.0                           | 337.5              | 0.0                           | 2,616.0            | 0.0                           |
| CESEE+CA <sup>1</sup> | 19.4               | 14.7                          | 21.7               | 16.1                          | 16.0               | 23.2                          | 9.7                | 24.6                          | -12.5              | 24.7                          | -9.7               | 24.0                          |

Source: Statistics Austria, OeNB.

Note: For relation of countries to regions, see annex.

<sup>1</sup> Services, excluding Serbia and Montenegro. EU-15: "old" EU, excluding Austria.

Nominal goods export data are available monthly with a delay of roughly 2½ months. In December 2008, the latest month for which data were available at the time of writing, overall nominal exports were 9.0% be-

low their comparative value in December 2007. Exports had even declined by 14.3% in November 2008. This monthly stream of data, however, is not working day-adjusted and is therefore distorted by the different numbers of

working days in these two months.<sup>7</sup> If one adjusts the data for this calendar effect, then a different trend is seen. Accordingly, nominal goods exports declined by 10% in November 2008 and by as much as 13.4% in December 2008. On this basis, the data tell a similar story for Austria as they do for most of Austria's trading partner countries: growth of exports slumped at the end of 2008. At the same time, the EU Member States that acceded in 2004 and 2007 continued to retain a – moderate – relative “growth advantage,” even during the downturn: Overall, nominal exports to the EU-27 declined in December 2008 by –12.1% (compared to December 2007). Yet while the growth of exports to the “old” EU (EU-15) declined by –12.9%, the growth of exports to the EU-10 declined by just –9.4%. The situation was much the same for exports to Eastern Europe at large, and for data based on November 2008.

## 2 Effects of Updated Growth Forecasts for Eastern Europe on the OeNB December Forecast for Austria

### 2.1 Significant Revisions in Recent Growth Forecasts

Until the end of 2008 – based on strong domestic demand – the growth prospects of the Eastern European region, with the exception of Estonia, Lithuania, and Hungary, were considered to be relatively robust, compared to the global downturn. However, rising spillovers of the financial and economic crisis to Eastern Europe since December 2008 have moved the topic closer to the top of the economic and political agenda; and since then, national and international forecasters (EBRD, IMF,

wiiw) have been revising their growth forecasts downward sharply.

Eastern Europe is anything but a unified economic zone. The economic fundamentals, the degree of involvement in international economic cooperation, as well as the economic interdependencies and impact of the international economic crisis are very different, depending on the country. What is common to most countries, however, is that they show similar symptoms of the economic downturn as Western Europe, such as lending restrictions, a significant drop in industrial output, and a sharp decline in exports. But depending on the fundamental situation (such as public and private debt, current account deficit, credit structure, currency reserves, and exchange rate regime) of the individual countries, the symptoms of the crisis have different consequences or become more intensified, through country-specific factors.

The *wiiw* emphasizes these differences in its latest forecast of March 5, 2009. In the forecast, the *wiiw* focuses on the EU Member States that acceded in 2004 and 2007 (differentiating between NMS-5 and NMS-10) and on actual and potential EU candidate states (see annex). Table 2 shows an overview of the current forecasts and forecast revisions for Eastern Europe. The *wiiw*'s forecast revisions are fairly substantial for 2009 compared to the November forecast, particularly for the EU candidate countries (–4.5 percentage points) and for the potential candidate countries (–4.1 percentage points). The forecast revisions for those EU Member States that acceded in 2004 and 2007 are relatively weaker (–2.5 (NMS-5)

<sup>7</sup> In December 2008, there was one more working day than in December 2007, whereas in November 2008, there was one less working day than in November 2007.

Table 2

### Key Results of Current Forecasts for Eastern Europe for 2009

|                                  | Designation of country group         | Number of countries | Forecast    |            |            |            | Difference  |
|----------------------------------|--------------------------------------|---------------------|-------------|------------|------------|------------|-------------|
|                                  |                                      |                     | Feb. 09     | Jan. 09    | Dec. 08    | Nov. 08    |             |
| EBRD                             | Central Europe and the Baltic states | 9                   |             | 0.4        |            | 2.1        | -1.7        |
|                                  | South-eastern Europe                 | 7                   |             | 1.5        |            | 3.4        | -1.9        |
|                                  | Eastern Europe and Caucasus          | 6                   |             | -0.8       |            | 4.8        | -5.6        |
|                                  | Central Asia                         | 6                   |             | 2.3        |            | 4.6        | -2.3        |
|                                  | <b>EU-10</b>                         | <b>10</b>           |             | <b>0.5</b> |            | <b>2.3</b> | <b>-1.8</b> |
|                                  | <b>CESEE+CA</b>                      | <b>29</b>           |             |            |            | <b>2.5</b> |             |
|                                  | <b>CESEE+CA<sup>1</sup></b>          | <b>30</b>           |             | <b>0.1</b> |            |            |             |
| IMF                              | Central and eastern Europe           | 14                  |             | -0.4       |            | 2.2        | -2.6        |
|                                  | Commonwealth of Independent States   | 13                  |             | -0.4       |            | 3.2        | -3.6        |
| wiiw                             | NMS-5                                | 5                   | 0.6         |            |            | 3.1        | -2.5        |
|                                  | <b>EU-10</b>                         | <b>10</b>           | <b>0.0</b>  |            |            | <b>2.7</b> | <b>-2.7</b> |
|                                  | Candidate countries                  | 3                   | -2.4        |            |            | 2.1        | -4.5        |
|                                  | Potential candidate countries        | 4                   | -0.9        |            |            | 3.2        | -4.1        |
| Consensus Economics <sup>2</sup> | Central Europe                       | 5                   | 0.2         | 0.9        | 2.0        | 2.7        | -2.5        |
|                                  | South-East Europe                    | 7                   | 0.2         | 1.3        | 2.5        | 3.5        | -3.3        |
|                                  | <b>Eastern Europe</b>                | <b>27</b>           | <b>-0.4</b> | <b>1.0</b> | <b>2.6</b> | <b>3.8</b> | <b>-4.2</b> |

Source: EBRD, IMF, wiiw, Consensus Economics; for region definitions, see annex.

<sup>1</sup> For the January forecast including Turkey.

<sup>2</sup> Column difference: Difference between February 2009 and November 2008.

and -2.7 (NMS-10) respectively), but they will nonetheless cause economic activity to stagnate in the EU-10 in 2009. The wiiw stressed that the forecasts for many countries could still be revised downward by 1 to 2 percentage points (Der Standard, 2009).

Consensus Economics publishes monthly forecasts for a large number of countries and groups of countries that are calculated as an average of other institutions' forecasts. The 2009 GDP growth rate forecast for "Eastern Europe" (27 CESEE+CA countries) has declined sharply over the course of recent months. From a growth rate of +3.8% forecast in November 2008, the growth forecasts declined by 1.4 percentage points on average, even turning negative, for the first time, in February 2009 (-0.4%). For the NMS-5 (Central Europe), Consensus Economics has cut its forecast to just a slight positive GDP growth (0.2%).

The EBRD had lowered its GDP forecasts for the CESEE+CA countries significantly already when publishing its latest Transition Report in November 2008 (EBRD, 2008). On January 27, 2009, the forecast was revised considerably downward yet again, however. After having predicted an average growth of 2.5% for the CESEE+CA countries in November 2008, the EBRD now expects GDP in the area to grow by just 0.1% in 2009. The "... EBRD region is feeling the full impact of the global slowdown, mainly because of the region's increased integration within the global economy" (EBRD, 2009). At the same time, the EBRD emphasizes that the situation is mixed; some countries in the region will still show positive GDP growth rates whereas other countries (Ukraine, Hungary, Estonia, and Lithuania) are already experiencing recession at the present time.

In the *IMF's* latest forecast update of January 28, 2009, growth prospects were revised markedly downward (IMF, 2009a). The IMF now forecasts an economic contraction of 0.4% for both the CIS and Central and Eastern European countries (14 states) for 2009. This necessitates a downward revision of the forecast for Central and Eastern Europe by 2.6 percentage points; and also for the CIS, by 3.6 percentage points. The IMF determined that a “sustained economic recovery will not be possible until the financial sector’s functionality is restored and credit markets are unclogged. For this purpose, new policy initiatives are needed to produce credible loan loss recognition” (IMF, 2009b).

*Altogether*, all institutions forecast a much less severe economic downturn (and in some cases, still positive growth rates) for the EU-10 countries, which attract the bulk of Austrian exports to Eastern Europe, than for all CESEE+CA countries.

## 2.2 How Growth Forecast Revisions Affect the OeNB December 2008 Forecast

In the Austrian Quarterly Model (AQM)<sup>8</sup> that the OeNB uses to prepare its forecast,<sup>9</sup> the growth of real exports is determined by the trend of (price) competitiveness indicators and especially by the trend of foreign demand for Austrian products.<sup>10</sup> With the benefit of hindsight, it has become clear that the OeNB’s December 2008 forecast (anticipating GDP growth of –0.3% for

Austria in 2009) was based on too optimistic a forecast of the growth trends of Austrian export destinations and, and therefore of the rise in export demand (+1.4% for 2009).

Based on current growth estimates for Eastern Europe and associated lower demand for Austrian exports, the anticipated effects on Austrian export and GDP growth for 2009 were simulated for this article with the aid of the AQM, distinguishing between two scenarios. First, we simulate the effects on Austrian GDP growth of the forecast revisions only for the EU-10. For this purpose, we had to produce a corresponding country sample<sup>11</sup> enabling us to compare the effects of the different growth forecasts of the Eurosystem (staff projections of December 2008), the EBRD, and the wiiw. Second, we simulated the effects of the modified forecasts for Eastern Europe at large (CESEE+CA), allowing us to compare the growth forecasts of the Eurosystem, the EBRD, and Consensus Economics. The IMF forecast can unfortunately not be used for a simulation, because no compatible country sample is available.

Based on the average goods export data for 2008, an export share of 17% to the EU-10 and of 25% to the CESEE+CA countries is assumed for the simulation. The real GDP growth rates forecast by the different institutions for the respective region are already given in table 2. The simulations are based on the declines in growth from the underlying assumptions of the

<sup>8</sup> *Schneider and Leibrecht (2006). The AQM is used for medium-term forecasts and simulation for a timeframe of one to 2½ years.*

<sup>9</sup> *As a rule, the euro area NCBs produce macroeconomic growth projections for their respective countries in June and December. These projections, which are based on common assumptions that are agreed on with the European Central Bank (ECB), are aggregated and yield the projections for the euro area as a whole.*

<sup>10</sup> *Foreign direct investment is not modeled in the AQM.*

<sup>11</sup> *The weighted GDP growth rates of Slovenia and Slovakia were taken from the ESCB staff projections of December 2008 and added to the GDP growth rate of the region “new EU Member States.”*

OeNB's December 2008 forecast to the most recent forecast for the respective region. For the EU-10, this is the forecast of the wiiw (0.0%), and for the CESEE+CA countries, that of Consensus Economics (−0.4%). Given that the forecasts for these regions have been steadily revised downward in recent months, we lowered the latest growth forecasts by an extra 1.0 percentage point. Thus, *the simulation is based on the assumption of a decline in growth from 2.8% (own calculation, based on the OeNB's December forecast) to −1.0% for the EU-10, and from 3.3% to −1.4% for the CESEE+CA countries.* Based on this decline in growth, we calculated the effect on the growth of foreign demand for Austrian products for the entire year (the individual quarters, respectively) of 2009, and simulated the effects on export and GDP growth in Austria.

Additionally, we simulated the overall effect of the downturn in Eastern Europe caused by the economic crisis on the Austrian GDP-growth. For this purpose, we used the average growth of Eastern European countries since the turn of the millennium rather than the growth assumptions of the OeNB's December 2008 forecast for Eastern Europe, which had already predicted a downturn. In other words, this scenario represents a benchmark scenario that simulates the overall export-induced negative growth effect of the financial and economic crisis on Austria. The ceteris paribus simulation results are shown in table 3. Here it is to be emphasized again that the calculations cover only the trade channel effects; effects transmitted via the banking sector or through direct investment are not taken into account.

Table 3

**Simulating the Effects of Deteriorating Growth Prospects for Eastern Europe for 2009, Compared to OeNB Forecast of December 2008 and to Average Eastern European Growth Rates from 2000 to 2007**

| Region                                                         | EU-10 <sup>1</sup>                   |                                         | CESEE+CA <sup>1</sup>                |                                         |
|----------------------------------------------------------------|--------------------------------------|-----------------------------------------|--------------------------------------|-----------------------------------------|
| Share of overall goods exports in % <sup>2</sup>               | 17                                   |                                         | 25                                   |                                         |
| Baseline for regional growth in 2009 based on                  | OeNB forecast Dec. 08 (= Baseline 1) | Average growth 2000–2007 (= Baseline 2) | OeNB forecast Dec. 08 (= Baseline 1) | Average growth 2000–2007 (= Baseline 2) |
| (1) Real GDP growth <sup>2</sup>                               | 2.8                                  | 4.3                                     | 3.3                                  | 5.8                                     |
| <b>Simulation assumptions for Eastern Europe</b>               |                                      |                                         |                                      |                                         |
| (2) Assumed real GDP growth for 2009 in %                      | −1.0                                 |                                         | −1.4                                 |                                         |
| (3) = (2) − (1) Difference in percentage points                | −3.8                                 | −5.3                                    | −4.7                                 | −7.2                                    |
| <b>Simulation results: Effects on Austria in 2009</b>          |                                      |                                         |                                      |                                         |
| Difference in growth compared to baseline in percentage points | Effects based on:                    |                                         |                                      |                                         |
|                                                                | Baseline 1                           | Baseline 2                              | Baseline 1                           | Baseline 2                              |
| Real GDP growth                                                | −0.4                                 | −0.6                                    | −0.7                                 | −1.1                                    |

Source: OeNB.

<sup>1</sup> For region definitions see annex.

<sup>2</sup> Authors' calculations.

Compared with the OeNB December 2008 forecast, real GDP growth had to be revised downward by 3.8 percentage points for the EU-10, and by 4.7 percentage points for the CESEE+CA countries, according to the simulation with the AQM. Depending on the scenario, the growth of real GDP for Austria in 2009 thus stands to decline by 0.4 percentage points (when taking into account only the EU-10 countries) or by 0.7 percentage points (when taking into account all of the CESEE+CA countries). Likewise, the growth of Austria's real exports stands to decline by either 0.8 percentage points or 1.4 percentage points. Compared with the average growth of Eastern European countries, the negative effect on Austrian GDP growth might amount to  $-1.1$  percentage points.

The assumed decline in growth is based on the current pessimistic forecasts for Eastern Europe, further lowered on the basis of expert judgment by another  $-1.0$  percentage point. At the same time, it cannot be ruled out at present that economic performance might weaken even more. Thus, the simulation results establish, rather, a baseline for the anticipated effects. Finally, it is important to understand that the simulation occurred *ceteris paribus*; any other changes, such as the steep economic downturn in Germany and Italy, as well as all other modified general conditions (such as the decline in oil prices and interest rates) were not considered.

In order to put the impact of the economic decline in the Eastern European region on Austrian exports into perspective, we compared the above results with the effects of the economic decline anticipated for Germany. With an export share of roughly 30%, Germany is Austria's most important trading partner. Thus, we calculated the growth differential between the cur-

rent forecast (IWH, 2009) and the December 2008 forecast of the Deutsche Bundesbank (simulation 1), as well as the average growth between 2000 until 2007 (simulation 2), and the resulting effect on export demand, and thus on the real GDP growth of Austria. The simulations indicate that real GDP growth in Austria is likely to decline by 0.8 percentage points (simulation 1) and 1.1 percentage points (simulation 2) as a result of the economic downturn in Germany; in other words, those results are broadly similar to the downward revisions triggered by the economic downturn in the CESEE+CA countries.

### 3 Summary and Conclusions

The focus of Austrian exporters on Central, Eastern, and Southeastern Europe has been instrumental in increasing total exports, enabling Austria to profit substantially from Eastern Europe's strong, above-average growth as it turned much-cited historical ties into a first-mover advantage. At the end of 2008, however, Austrian exporters suddenly faced a marked decline in exports to Eastern Europe, against the backdrop of an even larger decline of exports to Western Europe, though.

Over the course of the past several months, economic forecasts for 2009 have been revised downward considerably for all countries and also for Eastern Europe. However, growth in individual Eastern European countries is very diverse. Whereas, in the meantime, deep recessions are expected in some countries, such as the Baltics, Ukraine, and Hungary, the various forecasting institutions anticipate stagnation for other countries (Slovenia, the Czech Republic, among others), while yet other countries (Slovakia, Poland, among others) still have positive growth prospects.

Due to the sharp decline in growth in Eastern Europe and the resulting decreased demand for Austrian exports, simulation calculations made with the OeNB's macroeconomic model show that GDP growth in Austria is likely to decline between 0.4 and 1.1 percentage points in 2009, depending on the scenario. What we did in the scenarios was replace (*ceteris paribus*) the assumptions underlying the OeNB's December 2008 forecast or the historical average growth rates from 2000 through 2007, as appropriate, with the latest growth forecasts for either the EU-10 countries alone or the entire CESEE+CA region, adjusted downward by an additional 1 percentage point for the ongoing recession in Eastern Europe. In comparison, the effects on Austrian GDP growth generated solely by the economic downturn in Germany, are very similar (−0.8% percentage points based on current forecast revisions, and −1.1 percentage points compared to average growth).

The negative effect on GDP growth in Austria, generated by the recession in Eastern Europe, is to be seen in a

wider perspective. Although the forecast revisions for the Eastern European countries have been heavier in recent months than those for Austria's most important trading partners (Germany, Italy, Switzerland), Eastern Europe and especially the EU-10 – the key destination of Austrian exports to Eastern Europe – have managed to retain a positive growth differential to Western Europe, according to the current forecasts in 2009. From 2004 to 2008, Eastern Europe had a growth advantage of roughly 3½ percentage points on average over the euro area. Based on the IMF forecast, this differential will be roughly half in 2009, amounting only to approximately 1½ percentage points. In spite of everything, this means that, from a present-day perspective, the CESEE countries will grow stronger, or will contract less sharply, than Western Europe, even during the 2009 economic crisis. Thus, the strong exposure of Austrian exporters to Eastern Europe in fact softens the external trade effects of the current recession.

## References

- Altzinger, W. and C. Bellak. 2006.** Direct Versus Indirect FDI: Impact on Domestic Exports and Employment. WU-Working Paper 9/2006.  
<http://ssrn.com/abstract=230006> (retrieved on March 10, 2009).
- Bayerl, N., O. Fritz and R. Hierländer. 2008.** Die gesamtwirtschaftlichen Effekte der Exporte seit 1995. Merkmale einer „Basar-Ökonomie“ in Österreichs Außenwirtschaft. In: WIFO-Monatsberichte 11/2008. 855–879.
- Bhattacharya, R. 2007.** Austria's Deepening Economic Integration with Central and Eastern Europe. OECD Economics Department Working Paper 572.
- Breuss, F. 2006.** Ostöffnung, EU-Mitgliedschaft, Euro-Teilnahme und EU-Erweiterung. Wirtschaftliche Auswirkungen auf Österreich. WIFO Working Paper 270.
- Consensus Economics. 2009.** Eastern Europe Consensus Forecasts.  
[www.consensuseconomics.com/download/Eastern\\_Europe\\_Economic\\_Forecasts.htm](http://www.consensuseconomics.com/download/Eastern_Europe_Economic_Forecasts.htm)  
(retrieved on March 10, 2009).
- Der Standard. 2009.** Länder sind auf das Ausland angewiesen. In: Online edition of Der Standard of March 5, 2009.
- EBRD. 2008.** Transition Report 2008: Growth in Transition.  
[www.ebrd.com/pubs/econo/tr08.htm](http://www.ebrd.com/pubs/econo/tr08.htm) (retrieved on March 10, 2009).

- EBRD. 2009.** Press release of January 27.
- Fidrmuc, J. 2005.** Austria's EU Accession and Trade. In: Monetary Policy & The Economy Q2/05. Vienna: OeNB. 170–177.
- Fidrmuc, J., S. Kaufmann and A. Resch. 2008.** Structural Breaks in Austrian Foreign Trade with Eastern Europe during the Early 1970s. In: *Empirica* 35. 465–479.
- FIW. 2008.** Österreichs Außenwirtschaft 2008. Vienna.  
[www.fiw.ac.at/index.php?id=45&no\\_cache=1](http://www.fiw.ac.at/index.php?id=45&no_cache=1) (retrieved on March 10, 2009).
- Hunya, G. 2008.** Austrian FDI by Main Countries and Industries. FIW-Studie 015.  
[www.fiw.ac.at/fileadmin/Documents/Publikationen/fiwstudie15.pdf](http://www.fiw.ac.at/fileadmin/Documents/Publikationen/fiwstudie15.pdf) (retrieved on March 10, 2009).
- IMF. 2009a.** World Economic Outlook Update, Global Economic Slump Challenges Policies.  
[www.imf.org/external/pubs/ft/weo/2009/update/01/index.htm](http://www.imf.org/external/pubs/ft/weo/2009/update/01/index.htm) (retrieved on March 10, 2009).
- IMF. 2009b.** Press release of January 28, 2009.
- IWH. 2009.** Prognose-Update des IWH: Konjunkturelle Talfahrt hält vorerst an.  
[www.iwh.uni-halle.de/d/publik/presse/16-09.pdf](http://www.iwh.uni-halle.de/d/publik/presse/16-09.pdf) (retrieved on March 19, 2009).
- Schneider, M. and M. Leibrecht. 2006.** AQM-06: The Macroeconomic Model of the OeNB. OeNB Working Paper 132.
- Stankovsky, J. 1967.** Der mittelbare Außenhandel Österreichs mit den Oststaaten. In: WIFO-Monatsberichte 5/1967. 161–168.
- Stankovsky, J. 1998.** Österreichs Osthandel seit der Wende 1989. In: WIFO-Monatsberichte 10/1998. 665–669.
- Statistics Austria. 2008.** Der Außenhandel Österreichs. November, December 2008. Vienna.
- WIFO. 1955.** Österreichs Wirtschaftsverkehr mit der Sowjetunion. In: WIFO-Monatsberichte 10/1955. Beilage 33.
- wiiw. 2009.** wiiw-Prognose für Mittel-, Ost- und Südosteuropa, Kasachstan sowie China: Unterschiedliche Auswirkungen der globalen Krise. Vienna.  
[www.wiiw.ac.at/pdf/FC3\\_presse\\_dt.pdf](http://www.wiiw.ac.at/pdf/FC3_presse_dt.pdf) (retrieved on March 10, 2009).

## Annex

### Regional Allocation of Countries

| Designation of country group | Term Definitions                 |                              |                                                   |                                          |                                                                    | Statistics Austria | ECB                             |                  |                   | EBRD                                 |                      |                             |              |                                 |
|------------------------------|----------------------------------|------------------------------|---------------------------------------------------|------------------------------------------|--------------------------------------------------------------------|--------------------|---------------------------------|------------------|-------------------|--------------------------------------|----------------------|-----------------------------|--------------|---------------------------------|
|                              | Central and Eastern Europe (CEE) | New EU Member States (EU-10) | Central, Eastern and South-eastern Europe (CESEE) | Commonwealth of Independent States (CIS) | Central, Eastern, South-eastern Europe and Central Asia (CESEE+CA) | Eastern Europe     | Acceding EU countries aggregate | CIS + other CEES | Listed separately | Central Europe and the Baltic states | South-eastern Europe | Eastern Europe and Caucasus | Central Asia | Listed separately and aggregate |
| Number of countries          | 8                                | 10                           | 20                                                | 12                                       | 30                                                                 | 27                 | 8                               | 18               | 8                 | 9                                    | 8                    | 6                           | 6            | 30                              |
| Bulgaria                     |                                  | x                            | x                                                 |                                          | x                                                                  | x                  | x                               |                  |                   |                                      | x                    |                             |              | x                               |
| Estonia                      | x                                | x                            | x                                                 |                                          | x                                                                  | x                  | x                               |                  |                   | x                                    |                      |                             |              | x                               |
| Latvia                       | x                                | x                            | x                                                 |                                          | x                                                                  | x                  | x                               |                  |                   | x                                    |                      |                             |              | x                               |
| Lithuania                    | x                                | x                            | x                                                 |                                          | x                                                                  | x                  | x                               |                  |                   | x                                    |                      |                             |              | x                               |
| Poland                       | x                                | x                            | x                                                 |                                          | x                                                                  | x                  | x                               |                  | x                 | x                                    |                      |                             |              | x                               |
| Romania                      |                                  | x                            | x                                                 |                                          | x                                                                  | x                  | x                               |                  | x                 |                                      | x                    |                             |              | x                               |
| Slovakia                     | x                                | x                            | x                                                 |                                          | x                                                                  | x                  |                                 |                  | x                 | x                                    |                      |                             |              | x                               |
| Slovenia                     | x                                | x                            | x                                                 |                                          | x                                                                  | x                  |                                 |                  | x                 | x                                    |                      |                             |              | x                               |
| Czech Republic               | x                                | x                            | x                                                 |                                          | x                                                                  | x                  | x                               |                  | x                 | x                                    |                      |                             |              | x                               |
| Hungary                      | x                                | x                            | x                                                 |                                          | x                                                                  | x                  | x                               |                  | x                 | x                                    |                      |                             |              | x                               |
| Cyprus                       |                                  |                              |                                                   |                                          |                                                                    |                    |                                 |                  |                   |                                      |                      |                             |              |                                 |
| Albania                      |                                  |                              | x                                                 |                                          | x                                                                  | x                  |                                 | x                |                   |                                      | x                    |                             |              | x                               |
| Bosnia-Herzegovina           |                                  |                              | x                                                 |                                          | x                                                                  | x                  |                                 | x                |                   |                                      | x                    |                             |              | x                               |
| Croatia                      |                                  |                              | x                                                 |                                          | x                                                                  | x                  |                                 | x                |                   | x                                    | x                    |                             |              | x                               |
| Macedonia                    |                                  |                              | x                                                 |                                          | x                                                                  | x                  |                                 | x                |                   |                                      | x                    |                             |              | x                               |
| Montenegro                   |                                  |                              | x                                                 |                                          | x                                                                  | x                  |                                 |                  |                   |                                      | x                    |                             |              | x                               |
| Serbia                       |                                  |                              | x                                                 |                                          | x                                                                  | x                  |                                 | x                |                   |                                      | x                    |                             |              | x                               |
| Armenia                      |                                  |                              |                                                   | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      | x                           |              | x                               |
| Azerbaijan                   |                                  |                              |                                                   | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      | x                           |              | x                               |
| Georgia                      |                                  |                              |                                                   | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      | x                           |              | x                               |
| Kazakhstan                   |                                  |                              |                                                   | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      |                             | x            | x                               |
| Kirghizistan                 |                                  |                              |                                                   | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      |                             | x            | x                               |
| Moldova                      |                                  |                              | x                                                 | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      | x                           |              | x                               |
| Russia                       |                                  |                              | x                                                 | x                                        | x                                                                  | x                  |                                 | x                |                   | x                                    |                      |                             |              | x                               |
| Tajikistan                   |                                  |                              |                                                   | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      |                             | x            | x                               |
| Turkmenistan                 |                                  |                              |                                                   | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      |                             | x            | x                               |
| Ukraine                      |                                  |                              | x                                                 | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      | x                           |              | x                               |
| Uzbekistan                   |                                  |                              |                                                   | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      |                             | x            | x                               |
| Belarus                      |                                  |                              | x                                                 | x                                        | x                                                                  | x                  |                                 | x                |                   |                                      |                      | x                           |              | x                               |
| Mongolia                     |                                  |                              |                                                   |                                          | x                                                                  |                    |                                 | x                |                   |                                      |                      |                             | x            | x                               |
| Turkey                       |                                  |                              |                                                   |                                          | x                                                                  |                    |                                 |                  | x                 |                                      |                      |                             |              | x                               |

Source: Compiled according to the current forecast definitions of Statistics Austria, the ECB and the EBRD.

(Continuation)

### Regional Allocation of Countries

| Designation of country group | IMF                        |                                    |                   | wiiw                    |                          |                     |                               |                   | Consensus Economics |                   |     |                                      |
|------------------------------|----------------------------|------------------------------------|-------------------|-------------------------|--------------------------|---------------------|-------------------------------|-------------------|---------------------|-------------------|-----|--------------------------------------|
|                              | Central and eastern Europe | Commonwealth of Independent States | Listed separately | New Member States NMS-5 | New Member States NMS-10 | Candidate countries | Potential candidate countries | Listed separately | Central Europe      | South-East Europe | CIS | Eastern Europe and separately listed |
| Number of countries          | 14                         | 13                                 | 1                 | 5                       | 10                       | 3                   | 4                             | 20                | 5                   | 7                 | 10  | 27                                   |
| Bulgaria                     | x                          |                                    |                   |                         | x                        |                     |                               | x                 |                     | x                 |     | x                                    |
| Estonia                      | x                          |                                    |                   |                         | x                        |                     |                               | x                 |                     |                   |     | x                                    |
| Latvia                       | x                          |                                    |                   |                         | x                        |                     |                               | x                 |                     |                   |     | x                                    |
| Lithuania                    | x                          |                                    |                   |                         | x                        |                     |                               | x                 |                     |                   |     | x                                    |
| Poland                       | x                          |                                    |                   | x                       | x                        |                     |                               | x                 | x                   |                   |     | x                                    |
| Romania                      | x                          |                                    |                   |                         | x                        |                     |                               | x                 |                     | x                 |     | x                                    |
| Slovakia                     | x                          |                                    |                   | x                       | x                        |                     |                               | x                 | x                   |                   |     | x                                    |
| Slovenia                     |                            |                                    |                   | x                       | x                        |                     |                               | x                 | x                   |                   |     | x                                    |
| Czech Republic               | x                          |                                    |                   | x                       | x                        |                     |                               | x                 | x                   |                   |     | x                                    |
| Hungary                      | x                          |                                    |                   | x                       | x                        |                     |                               | x                 | x                   |                   |     | x                                    |
| Cyprus                       |                            |                                    |                   |                         |                          |                     |                               |                   |                     |                   |     | x                                    |
| Albania                      | x                          |                                    |                   |                         |                          |                     | x                             | x                 |                     | x                 |     | x                                    |
| Bosnia-Herzegovina           |                            |                                    |                   |                         |                          |                     | x                             | x                 |                     | x                 |     | x                                    |
| Croatia                      | x                          |                                    |                   |                         |                          | x                   |                               | x                 |                     | x                 |     | x                                    |
| Macedonia                    | x                          |                                    |                   |                         |                          | x                   |                               | x                 |                     | x                 |     | x                                    |
| Montenegro                   |                            |                                    |                   |                         |                          |                     | x                             | x                 |                     |                   |     |                                      |
| Serbia                       | x                          |                                    |                   |                         |                          |                     | x                             | x                 |                     | x                 |     | x                                    |
| Armenia                      |                            | x                                  |                   |                         |                          |                     |                               |                   |                     |                   | x   | x                                    |
| Azerbaijan                   |                            | x                                  |                   |                         |                          |                     |                               |                   |                     |                   | x   | x                                    |
| Georgia                      |                            | x                                  |                   |                         |                          |                     |                               |                   |                     |                   | x   | x                                    |
| Kazakhstan                   |                            | x                                  |                   |                         |                          |                     |                               | x                 |                     |                   | x   | x                                    |
| Kirghizistan                 |                            | x                                  |                   |                         |                          |                     |                               |                   |                     |                   |     |                                      |
| Moldova                      |                            | x                                  |                   |                         |                          |                     |                               |                   |                     |                   | x   | x                                    |
| Russia                       |                            | x                                  | x                 |                         |                          |                     |                               | x                 |                     |                   | x   | x                                    |
| Tajikistan                   |                            | x                                  |                   |                         |                          |                     |                               |                   |                     |                   |     |                                      |
| Turkmenistan                 |                            | x                                  |                   |                         |                          |                     |                               |                   |                     |                   | x   | x                                    |
| Ukraine                      |                            | x                                  |                   |                         |                          |                     |                               | x                 |                     |                   | x   | x                                    |
| Uzbekistan                   |                            | x                                  |                   |                         |                          |                     |                               |                   |                     |                   | x   | x                                    |
| Belarus                      |                            | x                                  |                   |                         |                          |                     |                               |                   |                     |                   | x   | x                                    |
| Mongolia                     |                            | x                                  |                   |                         |                          |                     |                               |                   |                     |                   |     |                                      |
| Turkey                       | x                          |                                    |                   |                         |                          | x                   |                               | x                 |                     |                   |     | x                                    |

Source: Compiled according to the current forecast definitions of the IMF, wiiw and Consensus Economics.