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Austria's Unit Labour Cost Position Improved in 2010 Due to the Recovering Economy

The recovery of the economy from the deep financial crisis and the business cycle-related increase in productivity resulted in an improvement of Austria's unit labour cost position in 2010. Productivity in manufacturing increased by 7.7 percent, while per-capita labour costs only increased by 1.7 percent. Thus, unit labour costs in manufacturing dropped by 5.5 percent in 2010. Austria's labour cost position developed somewhat less favourably than that of the EU trading partners (–5.9 percent) and Germany (–7.9 percent). In the economy as a whole, unit labour costs rose by 0.4 percent in Austria in 2010 and 0.2 percent in the EU trading partners. Due to business cycle-related temporary effects, a look at developments over the past five to ten years has more explanatory power.

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Positive development of the relative unit labour cost position in Austria

The relative unit labour cost position with respect to the EU trading partners is an important indicator of the international competitiveness of manufacturing. Unit labour costs are the most important determinant of prices and therefore also the price competitiveness of a sector or an economy. Beyond this, qualitative competitiveness also plays a significant role[1].

Over the past years, Austria's relative unit labour cost position with respect to the trading partners was not only determined by structural factors (such as specialisation patterns); instead, it was mainly shaped by the business cycle. After the slump in economic performance in 2009 due to the financial crisis, the economy experienced a noticeable recovery (*Scheiblecker et al.,* 2011). In Austria, the financial and economic crisis was mainly an export crisis and therefore primarily affected export-intensive manufacturing. As companies did not reduce the number of their employees in 2009 to the same extent to which their sales decreased, production declined more significantly than employment. This development was supported in Austria through a publicly funded short-time work programme. Productivity, which is an important determinant of unit labour costs therefore declined particularly severely in manufacturing. In the course of the subsequent recovery of the economy, this pattern reversed: productivity distinctly increased and unit labour costs sank. Based on the internationally different response of wage developments during the crisis and recovery phases, the course of unit labour costs is difficult to estimate. A meaningful observation of the relative unit labour cost position of Austria with respect to the trading partners therefore must cover a longer period of time.

[1] A detailed discussion of unit labour costs as an indicator of competitiveness can be found in *Hölzl – Leoni* (2010).

Calculation method and data basis for the comparison of unit labour costs

Unit labour costs in national currency (ULC) in a branch, a sector or the economy as a whole are defined by the relation between the nominal wage sum (WS) and real gross value added (GVA):

$$ULC = \frac{WS}{GVA}.$$

If both labour costs and value added are divided by a measure of labour input, this yields the two components of unit labour costs: labour costs per labour unit and labour productivity. The optimal measure for labour input would be the number of hours worked. However, because reliable data on employee hours in individual sectors are not available in most countries, international comparisons are based on the number of persons.

The wage sum refers to the number of employees (EMP), and productivity refers to the number of persons engaged (LF), which also includes the self-employed in the labour force:

$$ULC = \frac{\frac{WS}{EMP}}{\frac{GVA}{LF}}.$$

The unit labour costs published in the macroeconomic database of the European Commission (AMECO) are calculated applying this formula. WIFO calculations of unit labour costs in Austrian manufacturing, such as those published in the WIFO database, are also based on this method.

For international comparisons, unit labour costs have to be expressed in a common currency, as exchange rate fluctuations, similarly to the development of unit labour costs can alter the relative cost position of a country. In calculating the relative development between two countries, the relative unit labour cost position of a country is the ratio of unit labour costs of both countries, as measured in a single currency. For a comparison with several countries, a weighted method has to be used, as the relevance of countries to an international comparison will usually differ. Independently of the methodological approach, such a weighted scheme is based on international trade data statistics and therefore reflects the international trade interdependence of an economy.

WIFO uses a harmonised method, which is also applied by the European central bank. The weighting scheme consists of simple (bilateral) import weights and double (multilateral) export weights for industrial goods (SITC 5 to 8). A detailed illustration and explanation of this method can be found in *Mooslechner* (1995) and *Köhler-Töglhofer – Magerl – Mooslechner* (2006). Due to the double export weighting, competition with trading partners on the respective domestic markets can be shown, in addition to competition on all other export markets. The weights are calculated and applied for specific time periods. The most recent calculations are based on the three-year averages for the periods 1995-1997, 1998-2000, 2001-2003 and 2004-2006; and the most recent weights are applicable for the period after 2004. Using this variable weighting method makes it possible to take into account shifts in market shares.

The data on gross wages, productivity and unit labour costs in manufacturing and the economy as a whole are taken from the AMECO database. They are calculated based on the survey concept for national accounts, and not by hour of labour, but rather by person engaged (employee or self-employed). As no current data are available for some of the countries, the present report had to rely on OECD statistics. The annual values missing in the AMECO database were extrapolated based on the corresponding rates of change in the OECD database.

Information on the selection of countries

"EU trading partners" refers to the following countries: EU 27 without Austria, Malta, Cyprus, Romania and Bulgaria. The term "all trading partners" considers data from the following countries: EU 27 without Austria, Malta, Cyprus, Romania and Bulgaria, but including Norway, the USA, Canada and Japan. This selection of countries covers more than three quarters of all Austrian merchandise exports and about 85 percent of all merchandise imports.

Below average increase in gross compensation per employee

The development of the international unit labour cost position in manufacturing is a result of changes in per-capita labour costs, productivity growth and exchange rate fluctuations (see box "Calculation method and data basis for the comparison of unit labour costs"). Since Austria's entry into the monetary union, exchange rate fluctuations have lost some of their significance for Austria's export economy, as Austria's most important trading partners are within the euro area. However, the exchange rate development of the euro has exerted slight pressure on production costs within the Austrian export economy over the past several years (Figure 1). The nominal effective exchange rate index rose by a total of 11 percent between 2000 and 2009. However, in 2010, this development reversed and the nominal effective exchange rate index once again declined. The strength of the euro compared to other important currencies was particularly important to the nominal effective appreciation of the euro, as its value increased by 3.5 percent annually between 2000 and 2010 with respect to the dollar and pound, and 1.5 percent with respect to the yen.

Figure 1: Development of the nominal effective exchange rate index

Source: WIFO database.

The analysis of international labour cost development is based on the data from national accounts. It is based on the development of nominal compensation per employee, in other words the wage and salary sum including the employer's social contribution per employee. In 2010 in Austria, labour costs increased by 1.7 percent, compared to the previous year, while those of the EU trading partners increased by 3.8 percent. The greatest increase was registered in Lithuania (+9.6 percent), Slovenia (+8.5 percent) and the UK (+7.0 percent). A weaker increase than in Austria was observed in Belgium (–0.2 percent), Finland (+1.5 percent) and Sweden (+1.6 percent). In Germany, Austria's most important trading partner, labour costs increased by 4.4 percent.

On average between the years 2005 and 2010, the pattern was reversed. In Austria, labour costs increased annually by 3.0 percent, while they increased by 2.5 percent within the EU trading partners. The difference was particularly marked with respect to Germany (only +1.6 percent per year between 2005 and 2010), especially between the years 2007 and 2009. Over the entire 2000-2010 period, relative per-capita labour costs with respect to the EU trading partners remained unchanged (respectively +2.8 percent per year; Table 1).

Business cycle-related increase in productivity in 2010

An assessment of the international competitiveness of an economy is not only based on labour costs and exchange rate relations, but also on the production performance of the labour force (productivity). This is measured as the real net production value (gross value added) per person engaged. In the years before the crisis, Austrian manufacturing achieved above average productivity growth. After the slump during the financial and economic crisis, the year 2010 saw an economy-related recovery of productivity. Only Greece experienced a decline of 7.4 percent. In Austria, productivity in manufacturing rose by 7.7 percent, which was notably weaker than the average of the EU trading partners (+11.2 percent). In 2010, productivity rose particularly significantly within the new EU countries (+28.0 percent in Estonia, +17.6 percent in Lithuania, +13.1 percent in Latvia, as well as +16.6 percent in Sweden). At the same time, the recovery in southern European countries (Spain, Portugal) was below average.

Table 1: Development of per-capita labour costs (of employees) in manufacturing

In national currency

	Ø 2000-2005	Ø 2005-2010	2008	2009	2010
	Year-to-year percentage change				
Austria	+ 2.5	+ 3.0	+ 3.9	+ 2.0	+ 1.7
Belgium	+ 2.8	+ 2.1	+ 2.2	+ 0.3	– 0.2
Denmark	+ 4.4	+ 3.1	+ 2.3	+ 1.6	+ 3.4
Germany	+ 1.6	+ 1.6	+ 1.6	– 2.6	+ 4.4
Greece	+ 5.4	+ 5.7	+ 13.6	+ 0.3	+ 3.1
Spain	+ 3.6	+ 4.1	+ 5.5	+ 2.2	+ 2.9
France	+ 3.0	+ 2.3	+ 2.8	– 0.1	+ 2.2
Ireland	+ 5.7	+ 1.7	+ 4.8	– 0.6	– 2.2
Italy	+ 3.1	+ 3.0	+ 4.2	+ 1.1	+ 3.5
Luxembourg	+ 2.2	+ 1.5	+ 1.0	– 0.5	+ 3.1
Netherlands	+ 3.9	+ 2.7	+ 3.6	+ 1.7	+ 2.0
Portugal	+ 3.5	+ 3.1	+ 3.5	+ 1.7	+ 2.2
Finland	+ 3.8	+ 2.8	+ 4.3	+ 1.0	+ 1.5
Sweden	+ 4.1	+ 2.3	+ 1.1	+ 2.5	+ 1.6
UK	+ 5.2	+ 5.1	+ 3.3	+ 6.5	+ 7.0
Czech Republic	+ 6.6	+ 3.8	+ 4.9	– 3.9	+ 5.9
Estonia	+ 10.7	+ 8.0	+ 2.8	– 3.7	+ 4.4
Latvia	+ 7.5	+ 9.7	+ 16.1	– 11.2	– 0.8
Lithuania	+ 9.5	+ 4.8	+ 11.3	– 15.8	+ 9.6
Hungary	+ 8.7	+ 3.8	+ 5.1	– 1.1	+ 2.7
Poland	+ 0.1	+ 4.3	+ 10.6	– 2.4	+ 5.9
Slovenia	+ 8.8	+ 5.6	+ 5.5	+ 0.8	+ 8.5
Slovakia	+ 7.5	+ 6.3	+ 8.7	+ 0.4	+ 2.6
Japan	+ 0.4	– 0.4	± 0.0	– 5.3	+ 4.2
Canada	+ 3.5	+ 1.2	– 1.1	– 3.9	+ 3.9
Norway	+ 5.0	+ 4.9	+ 5.1	+ 3.0	+ 5.1
USA	+ 3.9	+ 3.6	+ 3.5	+ 4.6	+ 2.4
EU trading partners[1]	+ 3.0	+ 2.5	+ 3.0	– 0.9	+ 3.8
Austria					
All trading partners[2] = 100	– 0.5	+ 0.5	+ 0.9	+ 2.6	– 1.9
EU trading partners[1] = 100	– 0.5	+ 0.5	+ 0.8	+ 2.9	– 2.0
Germany = 100	+ 0.9	+ 1.4	+ 2.3	+ 4.8	– 2.5

Source: AMECO, Statistics Austria, OECD, WIFO calculations. – [1] Without Austria, Malta, Cyprus, Romania, Bulgaria; weighted average of Austria's trading partners according to WIFO exchange rate indices. – [2] Without Austria, Malta, Cyprus, Romania, Bulgaria, however, including Norway, the USA, Canada and Japan; weighted average of the trading partners according to WIFO exchange rate indices.

This strong rise in productivity was preceded by a significant, business cycle-related decline in 2009. While economic performance collapsed during the financial and economic crisis, employment declined to a slightly less significant extent because companies hoarded employees. In many countries, in particular Austria and Germany, this was supported by public funding of short-time work. A long-term comparison is less influenced by this effect and has therefore more explanatory power than short-term fluctuations. On average, between 2005 and 2010 productivity in Austrian manufacturing increased by 2.5 percent annually, compared to 1.2 percent in the EU trading partners. In Germany it remained unchanged during this period. This pattern can also be observed in a comparison for the period between 2000 and 2010: on average, productivity increased more significantly in Austria (+2.4 percent p.a.) than it did in Germany (+1.4 percent) and in the EU trading partners (+2.1 percent). However, much stronger growth can be observed in eastern and central European countries, certain Scandinavian countries and the USA (Table 2).

Decline in relative unit labour costs in manufacturing in 2010

Unit labour costs in manufacturing declined by 5.5 percent in Austria in 2010. This was primarily a result of an business cycle-related rise in productivity; during the previous year they had risen sharply. In Germany and the EU trading partners the development of unit labour costs was similar. Only in Greece (+11.4 percent), Canada (+19.1 percent), Norway (+8.2 percent), the USA (+0.8 percent), the UK (+3.9 percent) and Japan (+1.1 percent) did unit labour costs increase in 2010. The greatest

decline could be found in Estonia (–18.5 percent), Ireland (–14.1 percent), Latvia (–12.7 percent) and Luxembourg (–11.0 percent).

Table 2: Development of per-capita productivity (of employees) in manufacturing

In national currency

	Ø 2000-2005	Ø 2005-2010	2008	2009	2010
	Year-by-year percentage change				
Austria	+ 2.4	+ 2.5	+ 2.7	– 10.1	+ 7.7
Belgium	+ 2.3	+ 1.3	– 0.7	– 1.9	+ 3.1
Denmark	+ 2.1	+ 3.1	+ 2.4	– 2.7	+ 10.3
Germany	+ 2.7	+ 0.0	– 5.6	– 15.6	+ 13.3
Greece	+ 1.5	– 0.8	+ 4.2	+ 6.2	– 7.4
Spain	+ 1.2	+ 1.7	– 1.2	– 0.5	+ 7.6
France	+ 3.1	+ 0.3	– 0.9	– 7.5	+ 6.6
Ireland	+ 6.0	+ 8.1	+ 1.2	+ 13.3	+ 13.0
Italy	– 0.4	– 0.1	– 3.4	– 8.4	+ 8.7
Luxembourg	– 0.4	– 0.2	– 11.9	– 9.1	+ 16.1
Netherlands	+ 3.3	+ 2.2	– 2.5	– 5.7	+ 10.6
Portugal	+ 2.1	+ 1.3	– 1.7	– 3.7	+ 5.5
Finland	+ 5.2	+ 3.9	+ 0.9	– 10.9	+ 10.2
Sweden	+ 7.0	+ 1.8	– 5.4	– 9.0	+ 16.6
UK	+ 4.5	+ 2.0	+ 1.8	– 4.4	+ 6.9
Czech Republic	+ 5.6	+ 6.4	+ 6.8	– 6.4	+ 13.5
Estonia	+ 9.1	+ 5.2	– 6.6	– 11.2	+ 28.0
Latvia	+ 6.5	+ 2.7	– 4.4	– 0.7	+ 13.1
Lithuania	+ 9.5	+ 5.6	+ 1.7	– 3.2	+ 17.6
Hungary	+ 6.0	+ 3.5	– 0.4	– 6.3	+ 12.1
Poland	+ 5.2	+ 8.6	+ 4.0	+ 7.2	+ 14.6
Slovenia	+ 6.1	+ 4.4	+ 0.6	– 8.1	+ 15.2
Slovakia	+ 12.7	+ 5.1	+ 5.6	– 12.9	+ 6.3
Japan	+ 4.4	+ 0.9	+ 1.4	– 14.7	+ 15.3
Canada	+ 0.5	– 0.0	– 3.6	– 5.1	+ 6.8
Norway	+ 4.8	+ 0.4	+ 0.7	– 1.2	+ 5.3
USA	+ 6.8	+ 3.5	+ 0.1	+ 1.9	+ 5.6
EU trading partners[1]	+ 3.1	+ 1.2	– 2.8	– 10.4	+ 11.2
Austria					
All trading partners[2] = 100	– 1.0	+ 1.1	+ 5.3	– 0.7	– 2.8
EU trading partners[1] = 100	– 0.7	+ 1.3	+ 5.7	+ 0.3	– 3.1
Germany = 100	– 0.4	+ 2.5	+ 8.8	+ 6.5	– 5.0

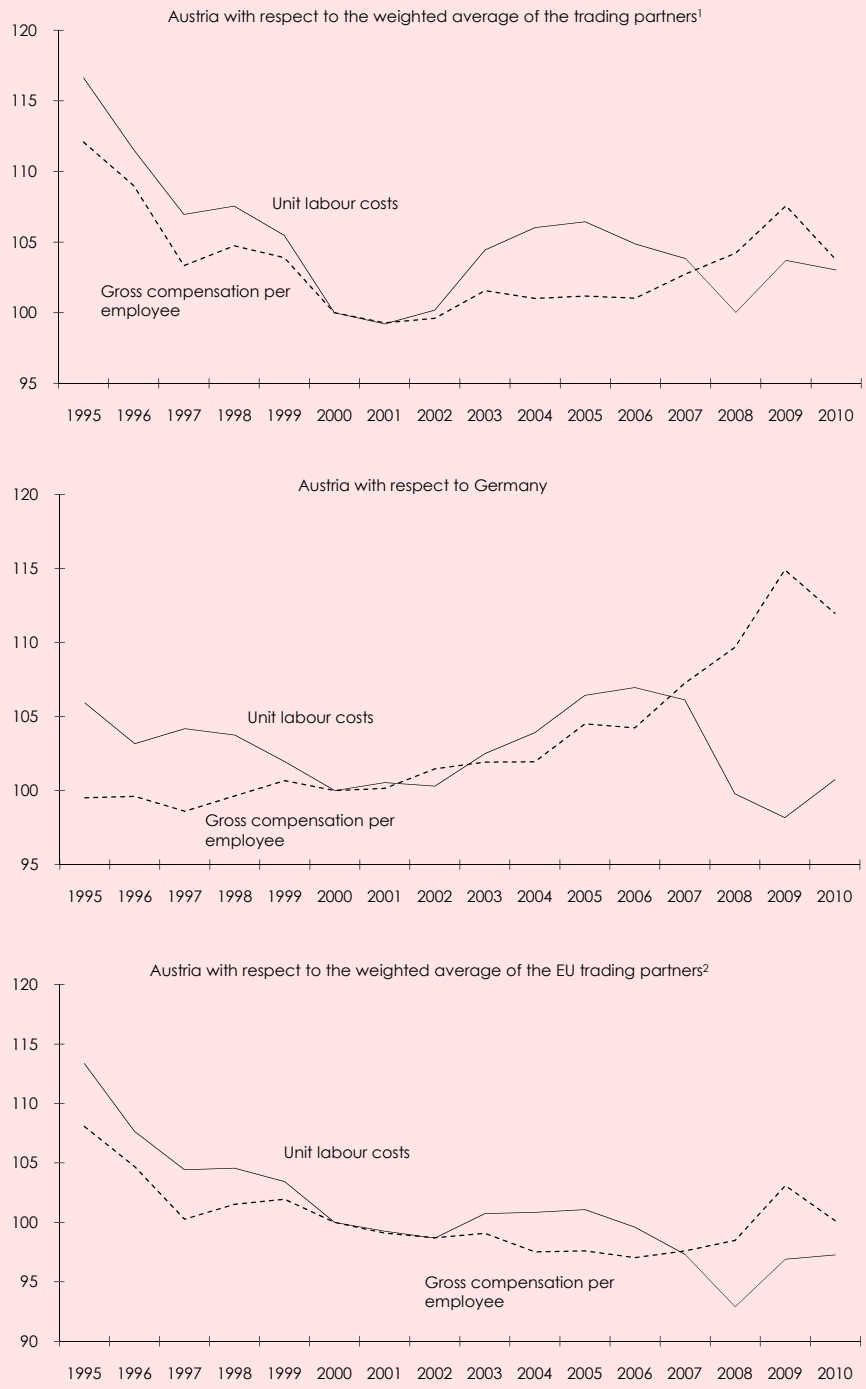
Source: AMECO, Statistics Austria, OECD, WIFO calculations. – [1] Without Austria, Malta, Cyprus, Romania, Bulgaria; weighted average of Austria's trading partners according to WIFO exchange rate indices. – [2] Without Austria, Malta, Cyprus, Romania, Bulgaria, however, including Norway, the USA, Canada and Japan; weighted average of the trading partners according to WIFO exchange rate indices.

For Austria we find an improvement in the relative labour cost position of –0.7 percent in 2010 with respect to the trading partners, while it worsened with respect to the EU trading partners (+0.4 percent) and Germany (+2.6 percent). Here as well, long-term comparisons yields more insights. The development of relative unit labour costs is determined by both the development of wages and changes in productivity in Austria and the trading partners (Figure 2). In some countries within the euro area (Italy, Greece, Spain), wages recovered at a greater rate than productivity; in most eastern and central European countries and the USA, however, they also increased significantly, but at a rate similar to productivity. In Austria, however, the average growth of labour costs lagged behind that of labour productivity, so that the unit labour cost position improved. On average, for the 2005-2010 period, unit labour costs in Austrian manufacturing increased by 0.5 percent annually, compared to 1.6 percent in Germany and 1.2 percent in the EU trading partners. As a result, the competitiveness of Austrian manufacturing greatly improved. Relative unit labour costs dropped markedly in the 2005-2010 period, both with respect to the EU trading partners (on average –0.8 percent annually) and with respect to Germany (–1.1 percent). On average, over the past ten years (2000-2010) this pattern was not as significant, with unit labour costs in manufacturing increasing by 0.3 percent annually in

Austria, and 0.6 percent in the EU trading partners. In Germany, however, the increase was only 0.2 percent per year. The relative unit labour cost position also worsened with respect to the trading partners outside the EU. This was at least in part attributable to the strong appreciation of the euro against the dollar and the British pound during this period (Table 3).

Figure 2: Development of relative wages and unit labour costs in manufacturing

In €, 2000 = 100



Source: AMECO, Austrian National Bank, WIFO calculations. – [1] Without Austria, Malta, Cyprus, Romania, Bulgaria, however, including Norway, the USA, Canada and Japan. – [2] Without Austria, Malta, Cyprus, Romania, Bulgaria.

Table 3: Development of per-capita unit labour costs (of employees) in manufacturing and the economy as a whole

In €

	Ø 2000-2005	Ø 2005-2010	2008	2009	2010
	Year-to-year percentage change				
Manufacturing					
Austria	+ 0.2	+ 0.5	+ 1.1	+ 13.5	– 5.5
Belgium	+ 0.4	+ 1.3	+ 2.9	+ 4.5	– 3.3
Denmark	+ 2.2	+ 0.1	– 0.2	+ 4.6	– 6.0
Germany	– 1.1	+ 1.6	+ 7.6	+ 15.4	– 7.9
Greece	+ 3.5	+ 6.6	+ 9.1	– 5.6	+ 11.4
Spain	+ 2.4	+ 2.4	+ 6.8	+ 2.7	– 4.4
France	– 0.1	+ 2.0	+ 3.8	+ 8.0	– 4.2
Ireland	– 0.3	– 6.3	+ 1.2	– 11.5	– 14.1
Italy	+ 3.5	+ 3.0	+ 7.8	+ 10.3	– 4.8
Luxembourg	+ 2.6	+ 1.8	+ 14.6	+ 9.4	– 11.0
Netherlands	+ 0.6	+ 0.5	+ 6.3	+ 7.9	– 8.0
Portugal	+ 1.4	+ 1.7	+ 5.3	+ 5.6	– 3.1
Finland	– 1.4	– 1.1	+ 3.4	+ 13.4	– 7.8
Sweden	– 4.5	– 0.1	+ 2.7	+ 2.0	– 3.0
UK	– 1.6	– 1.5	– 12.8	– 0.4	+ 3.9
Czech Republic	+ 4.7	+ 0.8	+ 9.4	– 3.2	– 2.4
Estonia	+ 1.5	+ 2.7	+ 10.1	+ 8.4	– 18.5
Latvia	– 3.4	+ 6.4	+ 21.1	– 11.0	– 12.7
Lithuania	+ 1.3	– 0.8	+ 9.4	– 13.0	– 6.8
Hungary	+ 3.5	– 1.8	+ 5.4	– 5.3	– 6.8
Poland	– 4.9	– 3.9	+ 14.6	– 26.1	– 0.2
Slovenia	– 0.4	+ 1.1	+ 4.9	+ 9.7	– 5.9
Slovakia	– 2.8	+ 6.2	+ 11.2	+ 19.6	– 3.5
Japan	– 9.8	+ 1.9	+ 5.0	+ 29.1	+ 1.1
Canada	+ 1.1	+ 4.5	– 2.8	– 0.5	+ 19.1
Norway	+ 0.4	+ 4.4	+ 1.7	– 1.8	+ 8.2
USA	– 8.4	– 1.4	– 3.6	+ 10.7	+ 0.8
EU trading partners[1]	– 0.1	+ 1.2	+ 5.9	+ 8.8	– 5.9
Austria					
All trading partners[2] = 100	+ 1.3	– 0.6	– 3.7	+ 3.7	– 0.7
EU trading partners[1] = 100	+ 0.2	– 0.8	– 4.5	+ 4.3	+ 0.4
Germany = 100	+ 1.3	– 1.1	– 6.0	– 1.6	+ 2.6
Economy as a whole					
Austria	+ 0.7	+ 1.9	+ 2.7	+ 4.8	+ 0.4
EU trading partners[1]	+ 1.6	+ 1.7	+ 3.3	+ 2.7	+ 0.2
All trading partners[2]	+ 0.7	+ 1.6	+ 2.5	+ 3.3	+ 1.0
Austria					
All trading partners[2] = 100	– 0.0	+ 0.4	+ 0.2	+ 1.5	– 0.6
EU trading partners[1] = 100	– 0.9	+ 0.3	– 0.5	+ 2.0	+ 0.1
Germany = 100	+ 0.5	+ 1.0	+ 0.4	– 0.4	+ 1.2

Source: AMECO, Statistics Austria, OECD, WIFO calculations. – [1] Without Austria, Malta, Cyprus, Romania, Bulgaria; weighted average of Austria's trading partners according to WIFO exchange rate indices. Unit labour costs: ratio of per-capita gross compensation per employee and real gross value added or real gross per-capita domestic product (per person engaged). – [2] Without Austria, Malta, Cyprus, Romania, Bulgaria, however, including Norway, the USA, Canada and Japan; weighted average of the trading partners according to WIFO exchange rate indices. Unit labour costs: ratio of gross compensation per employee and real gross value added or gross per-capita domestic product (per person engaged).

In the economy as a whole, unit labour costs in Austria fluctuated less significantly than they did in manufacturing. In 2010, they increased by 0.4 percent, and by 0.2 percent in the EU trading partners. In the average of the years 2005-2010 unit labour costs in the Austrian economy as a whole also increased by +1.9 percent per year, a somewhat stronger increase than in the EU trading partners (+1.7 percent). Austria's relative unit labour cost position therefore worsened, in particular with respect to Germany. The rise in unit labour costs was stronger in the economy as a whole than in manufacturing, both in Austria and the trading partners. This is not surprising, as the possibilities for increasing productivity are greater in manufacturing (*Hölzl – Leoni,* 2010). The relative unit labour cost position in the Austrian economy worsened by 0.4 percent between 2005 and 2010 with respect to all trading part-

ners, 0.3 percent with respect to the EU trading partners and 1 percent with respect to Germany.

Diverging unit labour cost developments within the euro area

Unit labour costs in manufacturing developed differently in the countries within the euro area after the establishment of the economic and monetary union. This pattern, which is also reflected in aggregate unit labour costs, resulted in a drastic shift in relative competitiveness amongst the euro countries. Within the euro area, exchange rates ceased to exist. The differing development of unit labour costs can therefore no longer be compensated for fluctuating exchange rates. Instead, it has to be compensated for by developments in productivity or wages. This shift in competitiveness can, as a result, lead to imbalances in growth and current accounts, which can endanger the recovery of the economy and destabilise the monetary union after an economic crisis[2].

Differences in manufacturing greater than those in the economy as a whole

The development of unit labour costs within the euro area diverged more significantly in manufacturing than in the economy as a whole. Between 2000 and 2010, on average, unit labour costs in manufacturing fell by 3.4 percent and 1.2 percent in Ireland und Finland, respectively. In Germany (+0.2 percent), Austria (+0.3 percent) and the Netherlands (+0.5 percent) a slight increased was registered, while in France and Belgium the average annual change was approximately +1 percent. By contrast, unit labour costs in manufacturing clearly increased in Greece (+5 percent), Italy (+3.3 percent), Spain (+2.4 percent) and Portugal (+1.6 percent). Cumulatively, this points toward a drastic shift in competitiveness between 2000 and 2010. While unit labour costs in Ireland and Finland sank by 29 percent and 12 percent, respectively, and remained largely stable in Germany and Austria, they rose significantly in Greece (+64 percent), Italy (+38 percent), Spain (+27 percent) and Portugal (+17 percent).

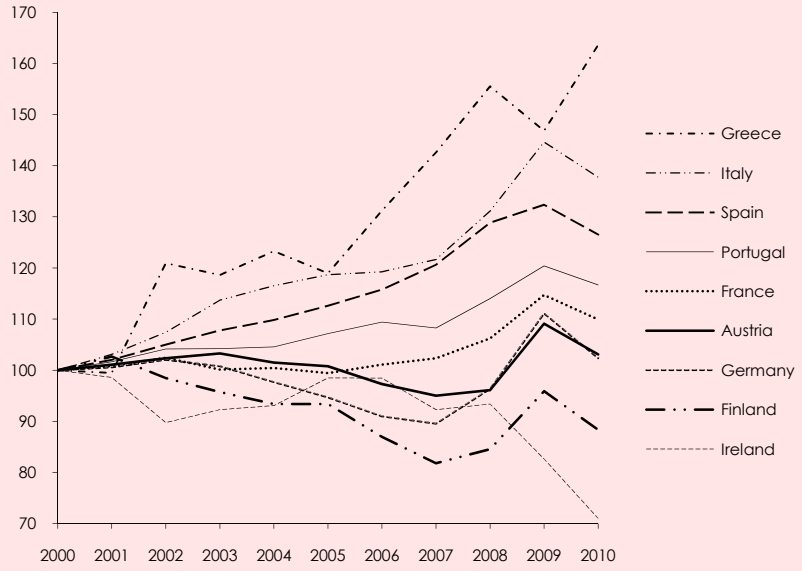
The 2000-2010 period includes the years of strong economic growth until 2007, the 2008-09 financial crisis and the subsequent, internationally heterogeneous recovery. In the period up to the peak of the boom (2000-2007), unit labour costs also sank significantly in Germany and Austria. In 2007, the Austrian value was 5 percent under that of 2000, and in Germany it even dipped by 10 percent. In Finland the decline was greatest (almost –20 percent). Meanwhile, in Ireland unit labour costs barely decreased until the year 2006 and then sank dramatically as a result of the financial crisis, which set in early there.

With the exception of Ireland, the cumulative difference in unit labour cost development between Germany and that of other economies between 2000 and 2007 was greater than in the total period. Since the crisis, unit labour costs, however, have also increased noticeably in Germany, so that the difference has once again been reduced. In Greece and Italy, however, the rise between 2007 and 2010 was higher than that of Germany, and their relative competitiveness also worsened during the crisis (Figure 3).

In the economy as a whole we observe a somewhat different pattern of development. With the exception of Greece and Italy, unit labour costs in all countries developed more strongly than in manufacturing. The difference was most significant in Ireland and Finland, where – in contrast to manufacturing – unit labour costs rose in the economy as a whole, just as they did in the other countries. The improvement of the relative competitiveness position with respect to Germany therefore was less – measured by the unit labour costs in the economy as a whole – in the 2000-2010 period than in manufacturing. This corresponds with the expected relationship between unit labour costs in manufacturing and the economy as a whole (see above). On the contrary, in Greece and Italy the increase in unit labour costs in manufacturing was much higher than in the economy as a whole. Relative competitiveness with respect to Germany therefore did not worsen as much as in manufacturing (Table 4).

[2] A detailed discussion of the causes and origins of current account imbalances in the euro area and competitiveness developments at the level of the economy as a whole can be found in *Ederer* (2010).

Figure 3: Unit labour cost development in manufacturing in the euro area



Source: AMECO, Statistics Austria, OECD, WIFO calculations.

Table 4: Relative competitiveness with respect to Germany in the euro area

On a euro basis, Germany = 100

	Manufacturing	Economy as a whole	Manufacturing	Economy as a whole
	Percentage change 2000-2007		Percentage change 2000-2010	
Austria	+ 5.5	+ 6.2	+ 0.8	+ 8.0
Belgium	+ 15.1	+ 13.7	+ 6.5	+ 16.6
Denmark	+ 24.6	+ 21.9	+ 9.6	+ 27.6
Greece	+ 53.1	+ 23.6	+ 61.3	+ 29.5
Spain	+ 31.1	+ 25.0	+ 24.2	+ 23.7
France	+ 12.8	+ 14.8	+ 7.6	+ 15.9
Ireland	+ 2.8	+ 28.0	– 31.3	+ 21.4
Italy	+ 32.1	+ 22.3	+ 35.4	+ 26.9
Luxembourg	+ 22.0	+ 17.9	+ 22.2	+ 25.5
Netherlands	+ 10.5	+ 16.4	+ 3.2	+ 17.6
Portugal	+ 18.7	+ 19.6	+ 14.3	+ 19.4
Finland	– 7.7	+ 9.2	– 14.0	+ 15.9

Source: AMECO, Statistics Austria, OECD, WIFO calculations.

Productivity growth determines the divergence of unit labour costs

These differences mainly arose from the diverging development of productivity in manufacturing. In Finland and Ireland productivity rose between 2000 and 2007 by about 6½ percent on average per year, compared to 3½ percent in Germany, the Netherlands and Austria. In Belgium, France and Portugal it rose by a good 2½ percent per year on average, and in Spain by only 1½ percent. In Greece and in Italy, however, productivity largely stagnated in manufacturing. Per-capita labour costs increased most significantly within the euro area in Greece and Ireland (on average more than +5 percent per year). In Finland, the Netherlands, Spain and Portugal the increase was below 4 percent. Belgium, France, Italy and Austria saw a much weaker rise with +3 percent on average. In Germany per-capita labour costs rose by less than 2 percent.

In Greece, Italy and – to a lesser extent – Spain, the increase in per-capita labour costs was therefore much higher than the moderate to minimal increase in productivity. Above all in Germany, Finland and Ireland labour costs developed much more weakly than productivity. In Austria the increase was also lower, while the Netherlands saw the same rate for labour costs and productivity. In Belgium and France labour costs increased at a somewhat greater rate than productivity.

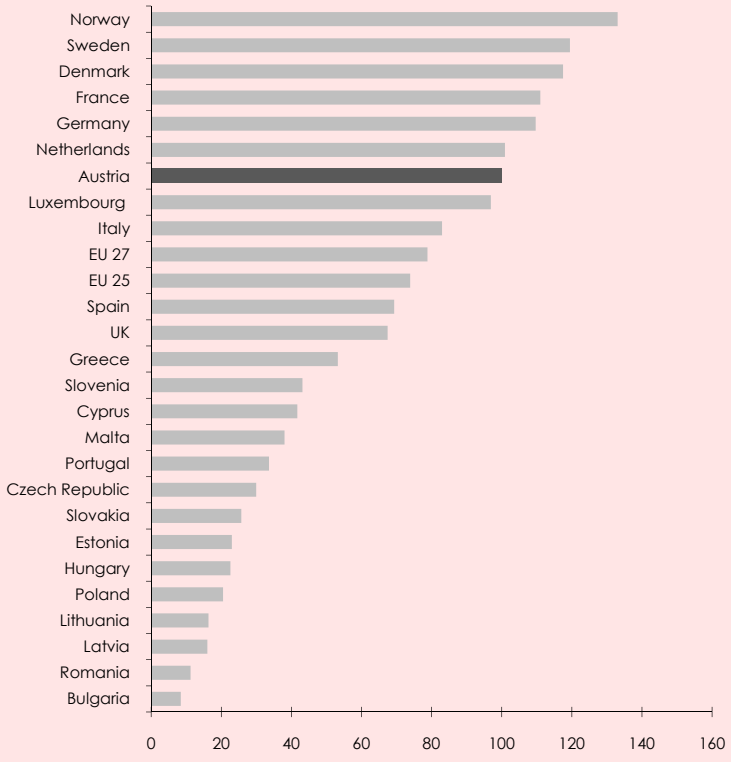
Conclusion

The recovery of the economy after the economic crisis resulted in a reduction in unit labour costs in manufacturing of 5.5 percent in Austria in 2010. Productivity increased by 7.7 percent, while labour costs rose moderately (+1.7 percent). However, the increase in productivity was low by international comparison, with unit labour costs sinking somewhat less than the average of the EU trading partners (–5.9 percent) and Germany (–7.9 percent). This resulted in a worsening of Austria's relative unit labour cost position by 0.4 percent with respect to the EU trading partners in 2010, and by 2.6 percent with respect to Germany. Due to the temporary effects of stabilizing economic policies, a look at long-term development has more explanatory power than a look at the year 2010. On average, over the 2005-2010 period, the relative unit labour cost position of Austrian manufacturing improved significantly (–0.8 percent per year compared to the EU trading partners and –1.1 percent compared to Germany). Within the same period, the unit labour cost position of the economy as a whole declined by 0.3 percent with respect to the EU trading partners and by 1 percent with respect to Germany.

In the course of the crisis, the development of competitiveness within the euro area became a focus of interest of economic policy. Since the establishment of the monetary union, a clear divergence in the development of unit labour cost positions has been observed within the euro area – a divergence that can above all be attributed to different developments in productivity. The absence of an exchange rate mechanism makes these differences persistent.

Figure 4: Labour costs per hour in manufacturing in 2010

In €, Austria = 100



Source: Eurostat (Employee survey 2008; labour cost index), WIFO calculations.

Appendix: Labour costs per hour in manufacturing

Labour costs per employee hour worked have been calculated here using the labour cost survey, which is carried out every four years in EU countries. The annual development between two labour cost surveys is estimated using a labour cost index. The results published here are based on the 2008 labour cost survey published in 2010. The report from the previous year (*Hölzl – Leoni,* 2010) used the data from the 2004 survey. As a result of revisions, the shift from the NACE rev. 1 to NACE rev. 2

and the repositioning of the anchor value to 2008, the figures for 2009 differ significantly from those in the report in some countries, in particular Norway, Greece, Malta and the UK.

Table 5: Labour costs per hour in manufacturing

	2004	2005	2006	2007	2008	2009	2010
				In €			
Bulgaria	1.4	1.5	1.6	1.8	2.2	2.5	2.6
Romania	1.5	1.9	2.4	3.0	3.3	3.2	3.5
Latvia	2.4	2.6	3.3	4.3	5.2	5.2	5.0
Lithuania	2.8	3.1	3.7	4.6	5.5	5.2	5.1
Poland	3.8	4.6	5.0	5.8	6.8	5.8	6.4
Hungary	5.5	6.0	6.1	7.0	7.5	6.9	7.0
Estonia	4.0	4.5	5.2	6.3	7.2	7.2	7.2
Slovakia	5.6	6.3	6.7	7.2	7.6	8.0	8.0
Czech Republic	5.4	5.9	6.6	7.3	8.7	8.8	9.3
Portugal	8.9	9.1	9.1	9.6	9.9	10.2	10.5
Malta	10.1	10.3	11.0	11.1	11.3	12.0	11.8
Cyprus	10.7	11.1	11.5	11.7	12.4	12.7	13.0
Slovenia	9.5	10.2	10.6	11.1	12.3	13.0	13.4
Greece	16.5	14.4	14.7	15.3	15.8	16.3	16.6
UK	21.8	22.3	23.4	24.0	21.5	19.6	21.0
Spain	17.1	17.8	18.5	19.4	20.3	21.4	21.6
EU 27	19.3	19.8	20.5	21.1	22.0	22.7	23.0
EU 25	20.7	21.2	21.9	22.6	23.5	24.2	24.5
Italy	21.0	21.6	22.1	22.8	24.0	25.7	25.8
Luxembourg	25.6	25.5	26.3	27.2	28.3	30.2	30.2
Austria	26.1	26.9	27.5	28.4	30.0	31.5	31.1
Netherlands	27.1	27.4	28.2	29.0	30.3	31.1	31.4
Germany	31.1	31.3	32.2	32.4	33.4	34.1	34.1
France	28.3	29.5	30.7	31.9	33.2	33.3	34.6
Denmark	30.6	31.2	32.1	33.4	34.8	35.7	36.6
Sweden	32.0	32.4	32.7	34.4	34.5	32.8	37.2
Norway	28.4	31.1	32.9	35.6	36.9	36.5	41.4
Belgium	32.2	33.3	34.1	35.6	36.7	38.5	.
Ireland	.	.	.	.	28.1	.	.
Finland	.	.	.	.	30.1	.	.

Source: Eurostat (Employee survey 2008; labour cost index), WIFO calculations.

Unlike the labour cost survey, the labour cost index does not use the same statistical concept for all countries. This somewhat limits the viability of international comparison. For Austria, the index is based on data from the economic survey. Table 4 depicts estimated labour costs for the entire 2004-2009 period based on the revised labour cost index, therefore also depicting the revised time series.

An international comparison of labour costs per hour must be interpreted with particular caution for the years 2009 and 2010. On the one hand, the effect of short-time work on the development of labour costs is not completely reflected in the Austrian economic survey, as the portion of additional costs covered publicly is not taken into account. On the other hand, there is no information on the extent to which short-time work or other labour policy measures have influenced the labour cost data of other countries in the course of the economic crisis.

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Austria's Unit Labour Cost Position Improved in 2010 Due to the Recovering Economy – Summary

Relative unit labour costs vis-à-vis trading partners are an important indicator of international competitiveness in the manufacturing sector. Unit labour costs are the main determinant for prices and consequently also for the competitiveness of a given sector or the economy as a whole, although qualitative competitiveness factors play a decisive role as well.

In the Austrian manufacturing sector, the evolution of unit labour costs relative to trading partners in recent years has not only been determined by structural factors (such as patterns of specialisation) but – even more – by the business cycle. During the financial and economic crisis of 2008-09, production shrank at a faster rate than employment, thereby impairing productivity in the export-intensive manufacturing sector. Since labour productivity is a major determinant of unit labour costs, the latter increased sharply. In the course of the subsequent recovery, productivity rose and unit labour costs fell. Due to these cyclical patterns, a long-term observation of unit labour cost developments is usually more meaningful.

Unit labour costs in the Austrian manufacturing sector decreased by 5.5 percent in 2010. This was slightly less than the rates achieved by trading partners in the EU (–5.9 percent) and in Germany (–7.9 percent). Relative unit labour costs consequently increased. However, during the period of 2005-2010 relative unit labour costs sank both vis-à-vis EU trading partners (–0.8 percent p.a. on average) and Germany (–1.1 percent).

Since the establishment of the European Monetary Union, unit labour costs in the manufacturing sector have developed differently across member countries. In Ireland and Finland, they decreased markedly over the period of 2000-2010 and more or less stagnated in Germany, Austria and the Netherlands. In contrast, they increased in Greece, Italy, Spain and Portugal. This resulted in a dramatic shift in competitiveness within the euro area which constrains the economic recovery and destabilises the EMU.