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## **CENTROPE Regional Development Report 2010**

### **Returning to Growth – Executive Summary**

**Petr Rozmahel (Coord.), Ludek Kouba (MUAF),  
Karol Frank (EU SAV), Peter Huber (WIFO),  
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#### **Abstract**

The economic crisis had a deep impact on the CENTROPE Region. In average the CENTROPE countries were harder hit than the EU 27. Moreover the relative growth performance of regions within CENTROPE shifted. While before 2008 the new EU countries among the CENTROPE countries experienced (with the exception of Hungary) higher growth rates than Austria, in the crises year 2009 the opposite applied. This more than average affectedness of the CENTROPE countries does, however, not apply to the CENTROPE regions. According to existing regional forecasts the GVA decline of the CENTROPE region as an aggregate was still lower than that of the EU 27 and for 2010 as well as the years after this a return to above average growth performance is expected. Recovery has been more rapid than expected. Already in 2010 all CENTROPE countries but Hungary will resume GDP growth and once more economy in the new EU countries will grow faster than in Austria. On a regional level, by contrast, it is expected that all CENTROPE regions but Vas and South Moravia will return to economic growth in 2010. From a long-term perspective the increase in unemployment rates due to the crises seems to be more of a problem, since in the past unemployment rates have proven to be rather persistent in the CENTROPE and have fallen only in times of very rapid growth.

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# CENTROPE Regional Development Report 2010

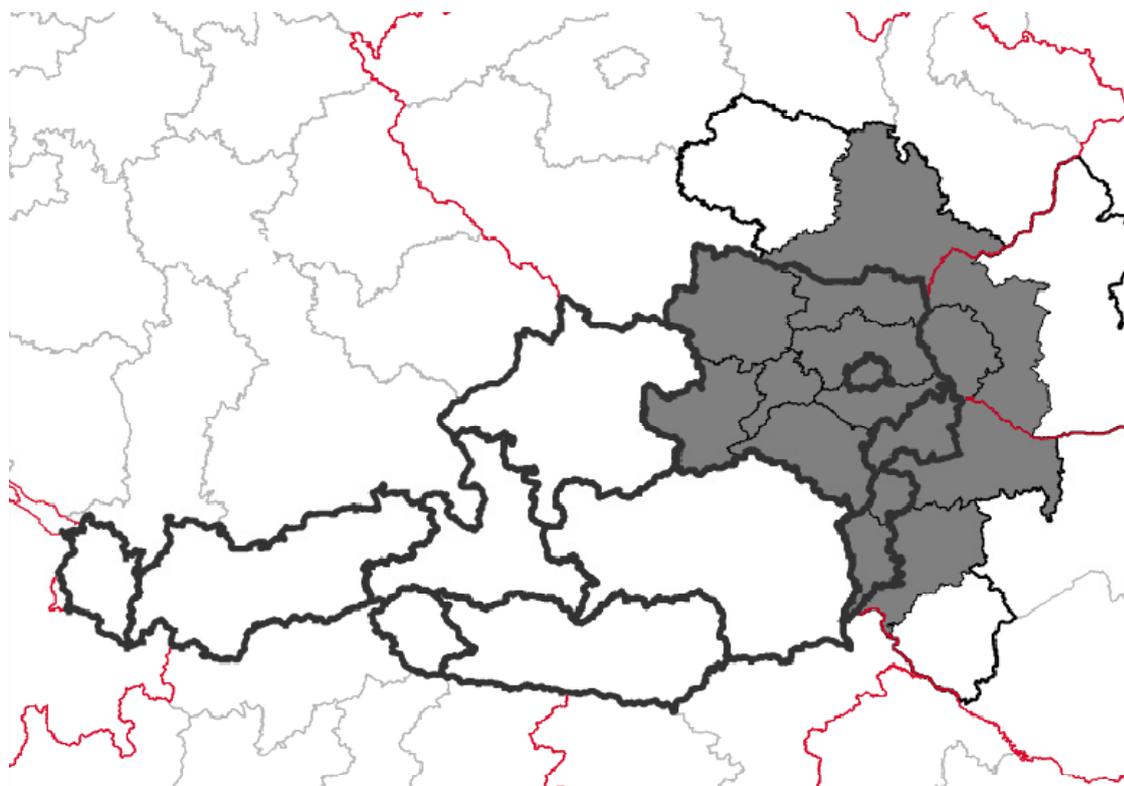
## Executive Summary

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### Introduction – Regional Characteristics

The CENTROPE region represents a unique transnational economic area located at the intersections of Austria, the Czech Republic, Hungary and Slovakia. All four countries have a long common history. Nevertheless, their development after World War II was substantially divergent. Nowadays, in spite of the fact that all CENTROPE countries are members of the European Union, we can still find and observe significant disparities in their economic structures and performance. These mainly result from the past historical, political and economic development of the countries. Whereas Austria is an economically highly developed country, the Czech Republic, Hungary and Slovakia as former centrally planned economies are still converging to the economic level (e.g. measured by GDP per capita) of the western EU member countries.

Map1: The CENTROPE Region



CENTROPE basically consists of eight regions. The Austrian part is composed of the capital of Vienna with the highest GDP per capita in CENTROPE, Lower Austria and Burgenland. South Moravia is the only NUTS 3 level region of the Czech part. The Hungarian part includes the regions of Győr-Moson-Sopron and Vas. The Slovak CENTROPE region is composed of the Bratislava and Trnava regions. According to this definition, the CENTROPE is a territory that covers 44.500 km<sup>2</sup> and has around 6.6 mio. inhabitants. The demographic differences between the sub-regions within the CENTROPE already point to a rather varied socio-economic structure. In particular in terms of population density an obvious differentiation of the urban centres of this region such as Vienna and Bratislava region and the more rural-peripheral regions (such as Burgenland) arises, while with respect to the age structure national differences dominate regional ones. The Slovak CENTROPE has an above average share of population aged 15-64 years (i.e. of the active aged) at the expense of both low shares of youths (up to 15 year olds) and older citizens (64 and older). The Austrian CENTROPE by contrast is characterized by low shares of active aged and high shares of older citizens, while the Hungarian and Czech CENTROPE regions are located somewhere in between.

**Table 1: Area, Population and Population structure of the CENTROPE 2008**

	Area (in km <sup>2</sup> )			Population			Shares by age (in %)		
	Absolute (1,000)	% of CENTROPE	% of EU27	Absolute (1,000)	% of CENTROPE	% of EU27	15 or less	15 to 64	65 or more
South Moravia	7,196.3	16.2	0.2	1,140.5	17.4	0.2	13.9	70.9	15.2
Győr-Moson-Sopron	4,208.5	9.5	0.1	444.4	6.8	0.1	14.6	70.0	15.4
Vas	3,336.1	7.5	0.1	261.9	4.0	0.1	14.1	69.5	16.3
Burgenland	3,965.5	8.9	0.1	281.2	4.3	0.1	13.9	66.5	19.7
Lower Austria	19,177.7	43.1	0.4	1,596.5	24.3	0.3	15.6	66.3	18.2
Vienna	414.7	0.9	0.0	1,674.9	25.5	0.3	14.4	69.2	16.4
Bratislava region	2,052.6	4.6	0.0	610.9	9.3	0.1	12.9	74.6	12.5
Trnava region	4,147.2	9.3	0.1	557.2	8.5	0.1	14.4	73.5	12.1
<b>CENTROPE</b>	<b>44,499.6</b>	<b>100.0</b>	<b>1.0</b>	<b>6,567.4</b>	<b>100.0</b>	<b>1.3</b>	<b>14.4</b>	<b>69.6</b>	<b>16.0</b>
<b>EU 27</b>	<b>4,403,357.0</b>		<b>100.0</b>	<b>497,670.6</b>		<b>100.0</b>	<b>15.7</b>	<b>67.3</b>	<b>17.0</b>

Source: Eurostat, regional database. Population on January 1st

The CENTROPE comprises two capital cities and a number of further major cities (such as Brno and Győr). It is a unique economic area where the impact of cross-border policies as well as natural convergence processes can be observed. The industrial agglomerations around the main cities, the large number of universities, research institutions and the

accessibility due to international airports, railway corridors as well as the region's geographic location in the common European market, provide substantial potential for long term economic growth and prosperity in this region.

### **Macroeconomic situation in the CENTROPE countries**

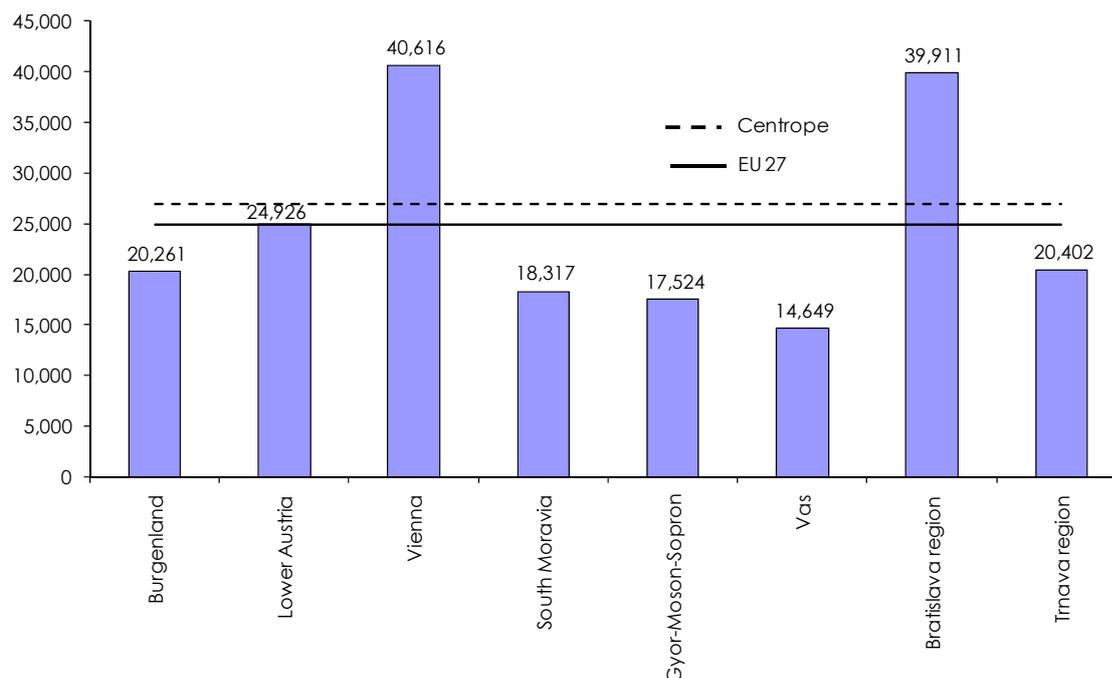
Before the financial and economic crisis, CENTROPE was - in terms of GDP - one of the fastest growing areas of the EU, though the individual performance of countries tended to differ significantly. While Slovakia and the Czech Republic had very high growth of GDP reaching 7.7% and 5.9% (measured as the average growth in constant prices in 2004-2007), Austria's performance (3.1%) was weaker if compared to the CENTROPE average (5.0%). However, when compared to the EU-27 average of 2.7% Austria also performed above average. Hungary suffered in the pre-crisis period from a restrictive fiscal policy and its growth rates amounting to 3.3% were lower than in Slovakia and the Czech Republic but higher than in Austria. Over a longer time horizon the average growth performance in the CENTROPE tended to improve from 2004 onwards, with the exception of Hungary. Thus, growth rates in the period of 2004-2007, i.e. after EU accession of ten new member states, were higher than in the years before, not only in the Czech Republic and Slovakia, but also in Austria. FDI inflows, structural changes in the labour market and also EU-accession aspects (including net EU transfers and the adoption of the EURO in the Slovak Republic) belonged to the main driving forces of growth.

Since the end of 2008 the economic development of the CENTROPE countries has been, however, affected by the economic and financial crisis. In general GDP declined by more than in other EU countries, given the strong dependence of the CENTROPE on foreign trade and manufacturing industry. At the same time this dependence is also the source of a relatively strong recovery, as global trade grew strongly in 2010. The effects of this on the CENTROPE countries were, however, more of an indirect nature, as Germany benefitted in the first place and other countries, like the CENTROPE countries benefitted in the second place through German spillovers. Certainly this can be considered a positive aspect of the integration of the CENTROPE into the EU, but it also raises the issue whether the CENTROPE wants to be more or less dependent on the developments and economic policy in one country.

Together with overall GDP the productivity and employment indicators also declined. The pre-crisis experience has shown that improving the employment situation in the new member state countries (NMS) of the CENTROPE depended heavily on high economic growth. Only with high GDP growth rates employment levels tended to increase and unemployment levels tended to decline, while most of the growth was generated through advances in productivity.

Thus, a fundamental question regarding the labour market situation is whether the CENTROPE countries can return to pre-crisis growth levels or not. If this is not the case, employment prospects, especially for those with low or even medium education might be worse than before the crisis, at least in the medium run.

**Figure 1: GDP per capita 2007 at PPS by NUTS 3 regions in the CENTROPE**



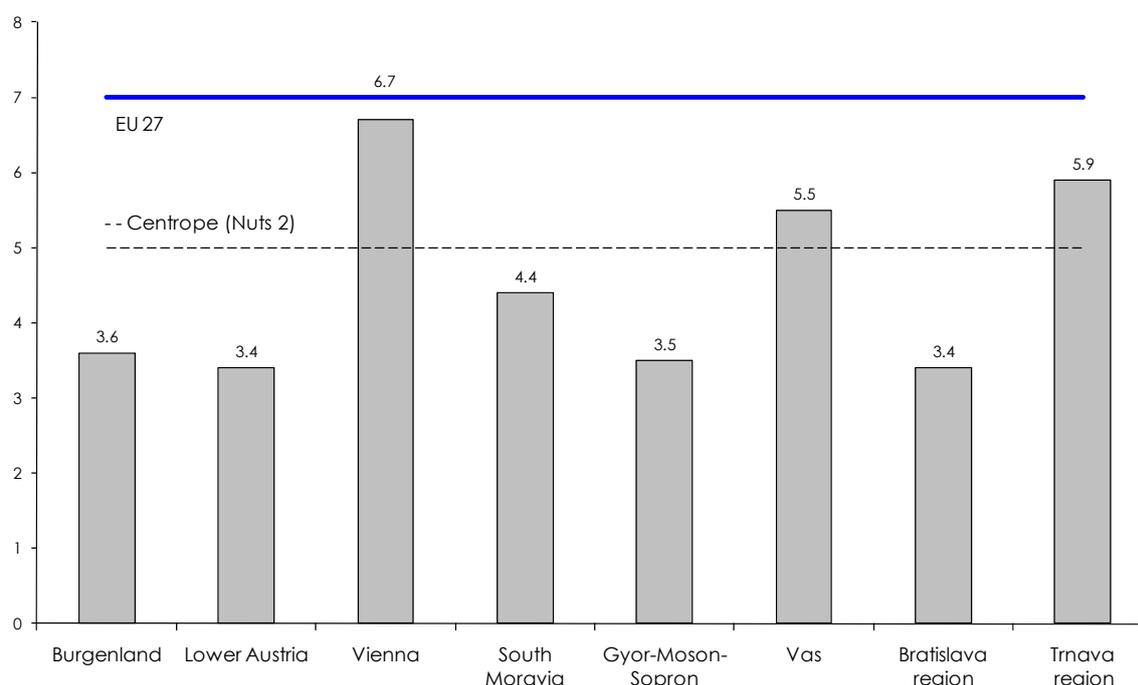
Source: Eurostat

### **Economic position of the CENTROPE Regions in Europe**

On a regional level, however, the CENTROPE economy as a whole has a history of outperforming the European Union average in terms of GDP growth. Due to faster economic growth in the CENTROPE, the GDP per capita of this region surpassed the EU 27 average already in the beginning of this decade. In 2007, the GDP per capita of the CENTROPE was by 11% higher than the EU average. Also annual productivity growth rates were higher than in the EU in the pre-crisis times and the situation on the labour markets is also more favourable than in the EU average. In 2008 all of the NUTS 3 regions of the CENTROPE had unemployment rates below the EU 27 average. Only one NUTS 2 region (West Transdanubia) in the CENTROPE had substantially lower employment rates than the EU average in 2008.

There are, however, also large disparities among the regions of the CENTROPE. These are closely linked to urban rural divisions, but also to still existing national division lines. Five regions of the area do not reach GDP per capita EU average, and only Vienna and Bratislava region – as large urban agglomerations - are clearly above the EU average, while the Hungarian CENTROPE and South Moravia are clearly below it. In addition only the Trnava region, the Bratislava region and South Moravia surpassed the EU 27 average GDP growth during 2004/2007 and, thus, were the main driving forces of growth in the CENTROPE.

Figure 2: Unemployment rate 2008 (In %)



Source: Eurostat, Note average values for the CENTROPE calculated using NUTS 2 level data, on account of missing data on employment at NUTS 3 level

Aside from high aggregate growth the CENTROPE has thus also experienced substantial internal convergence in the last decade. This tendency existed already before enlargement but gained in force on account of the rapid economic growth of Slovak CENTROPE regions since then. In the pre-accession period the growth rate of the fastest growing NMS region of CENTROPE exceeded that of the fastest growing Austrian region by 4 to 7 percentage points. In the period since 2004 average annual growth rates in the Slovak regions exceeded those of the Austrian CENTROPE by between 9-12 percentage points. Those of South Moravia exceeded those of Austrian regions by at least 3 percentage points and only West-Transdanubian regions of CENTROPE grew slower than the fastest growing Austrian regions

on account of the increasing economic problems of Hungary. Thus the difference between the poorest and the richest region in CENTROPE reduced from 122% of the EU average in 2000 to 93% in 2007.

The division line between Austrian and new member state regions in CENTROPE, which was and still is one of the main division lines in the region, is therefore becoming increasingly blurred. The division line between large urban agglomerations, industrial regions and rural-peripheral regions in the region is, however, becoming increasingly important. For example in the year 2000 the difference in GDP levels between Bratislava region as the prime example of an urban agglomeration in the new member states and the city of Vienna was € 14.500, while the difference between the richest and the poorest new member state region amounted to € 10.700. By 2007 this relationship had changed fundamentally. GDP per capita in Bratislava region was only by € 700 lower than in Vienna but by over € 25.000 higher than in the poorest new member state region.

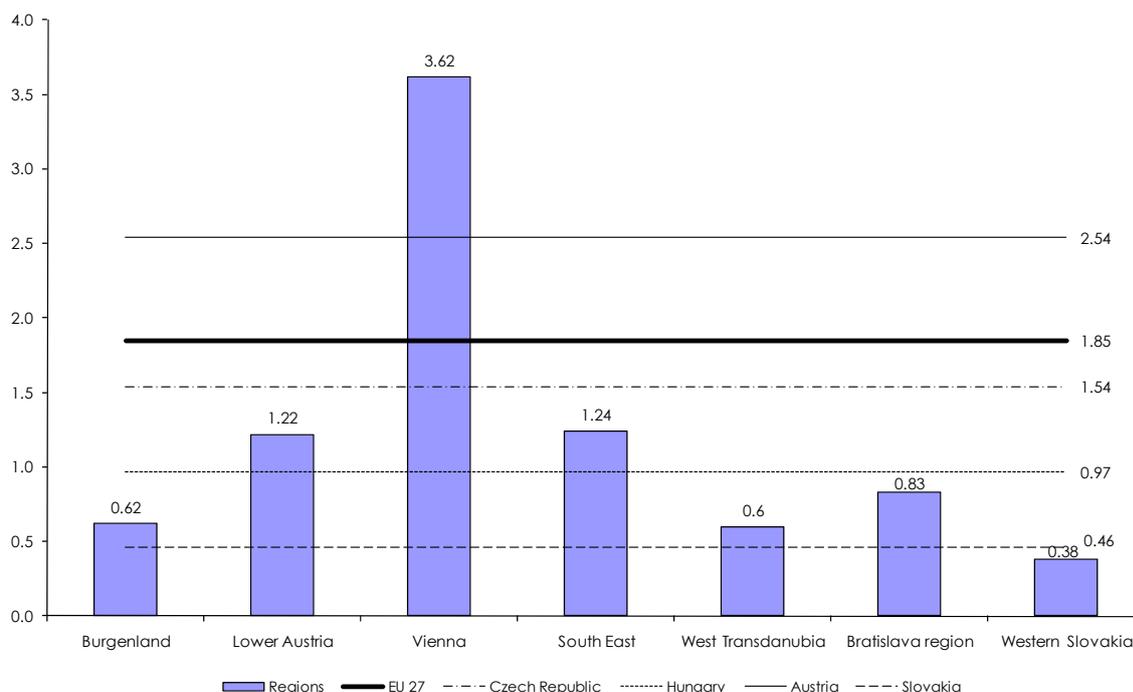
*Convergence has important long run repercussions on the comparative advantages of the region*

This process of convergence, which is also expected to continue in the future, has important repercussions for the development of comparative advantages of the region. To some degree it can still be argued that low wage costs and a predominantly medium skilled labour force are important elements of the comparative advantage of the CENTROPE, at least in the parts that lie in the new member states. The differences in income levels between the Austrian and the new member states' parts of the CENTROPE currently combine to the unique economic advantage of both low cost high growth locations with some of the most highly developed regions of the EU at very short distances from each other. As convergence progresses, however, these statements are likely to become less and less true. Thus issues that shape much of the policy debate in other border regions (such as generating critical masses in education, research and innovation to foster joint development) are likely to become much more important in the policy arena.

This underlines the importance of growth oriented cross-border policies in the fields of innovation, research and development as well as human capital development for the future of the region. This seems to be even more important given that the available evidence suggests that individual regions within the CENTROPE have a substantial innovation potential. Yet, despite improvements with respect to certain factors, shaping these more "modern" competitive advantages the CENTROPE is in terms of education structure and R&D expenditure still a below average region relative to the EU (see figure 3). In addition the process of convergence is likely to change the spatial configuration of the region. As

convergence progresses other locations are likely to become attractive for individual sectors as well as residents. This may give rise to suburbanization (even across national borders) and change the specialization of regions. Regions are increasingly becoming interdependent.

Figure 3: R&D Expenditure in % of GDP (2007)



Source: EUROSTAT

### CENTROPE regions: Return to growth?

*CENTROPE region was hit less strongly by the crisis than the CENTROPE countries*

Given this background the main interest of the first CENTROPE regional development report was with the potential long and short term impact of the recent financial and economic crisis on the individual sub regions of the CENTROPE. Here results suggest that most of the regions of the CENTROPE have recovered from the crisis more rapidly than originally expected. While the CENTROPE countries were hit harder than the EU 27, preliminary evidence available from forecasts of regional GVA and employment growth for 2008 and 2009 suggests that the CENTROPE region was not. In aggregate GVA is expected to have declined by less than in the EU average, and is also expected to resume growth more quickly. According to forecasts provided by Cambridge Econometrics a return of the CENTROPE to growth of 1.8% (as opposed to decline of 3.5% in 2009) is expected in 2010. Both indicators show better performance than the EU average in these years. This suggests

that the impact of the crisis on aggregate growth performance of the CENTROPE was of limited duration and recovery has been more rapid than expected and the processes of both above average growth and internal convergence found to apply since 2004 are likely to continue in the future.

**Table 2: Forecast GDP growth 2008 – 2014 (in %)**

	2008	2009	2010	2011-14*
	GVA Growth			
<b>EUROPEAN UNION</b>	0.7	-4.4	1.1	2.3
<b>CENTROPE</b>	2.8	-3.5	1.8	2.4
<b>South Moravia</b>	2.8	-4.1	0.7	3.4
<b>Gyor-Moson-Sopron</b>	3.4	-9.3	1.2	3.5
<b>Vas</b>	0.3	-10.0	-1.4	0.8
<b>Burgenland</b>	2.7	-3.5	1.2	1.5
<b>Lower Austria</b>	2.9	-3.8	2.0	2.1
<b>Wien</b>	1.7	-2.5	1.7	2.2
<b>Bratislava region</b>	8.6	-4.0	3.6	4.0
<b>Trnava region</b>	7.3	-8.2	2.9	4.3

S: Cambridge Econometrics, average annual average, GVA=Gross Value Added

*In the Austrian CENTROPE economic structure determined the impact of the crises*

But at the same time there was also some important variation across the regions of the CENTROPE. In particular the business cycle of the Austrian CENTROPE both during the phase of growth until 2008 and recession since 2009 was primarily driven by sectoral differences in individual regional economies. Highly export dependent industrial regions of the Austrian CENTROPE (such as Lower Austria) showed a noticeably better development in the upswing – but also a noticeably worse development in the recession – than regions, which depend more strongly on internal demand. This in turn implied that the Austrian CENTROPE, in which both the city of Vienna as well as the more rural Burgenland traditionally have a low share of export intensive industrial production, lagged the Austrian development in the upswing, but performed better than the Austrian average in the downturn.

The preliminary results for 2009 suggest that Vienna's GDP declined least strongly of all Austrian regions (by -2.5%) and that unemployment also increased by the lowest percentage (+9.9%). By contrast the industrial region of Lower Austria was much more strongly affected, with GDP declining by -5.5% and unemployment rising by almost a quarter (24.5%) in 2009. Burgenland, finally, due to its low share of export oriented manufacturing in total GVA was

also slightly less strongly affected by the crisis than the Austrian average. Its GDP declined by -3.5% and unemployment increased by 14.9%.

The results for the first two quarters of 2010, however, suggest a certain recovery of the Austrian economy with a return to recession becoming increasingly less likely as the year progresses. In the first half of 2010 GDP in Vienna according to preliminary estimates increased by 1.8% and unemployment increased by 2.0% relative to the previous year. In Burgenland GVA grew by 1.6% and unemployment even reduced (by 4.5%), while Lower Austria on account of an export structure that is less strongly focused on Germany than that of other industrial provinces of Austria grew by only 1.0%, while unemployment increased by 1.9%.

Despite this it is foreseeable that in the near future the Austrian economy will not return to the high growth rates registered in the boom years preceding the crisis, with a number of downside risks existing with respect to the impact of budget consolidation plans next year and a potential reduction of export dynamics in the event of further currency crises in the Euro-area. Current expectations are that Austria enters a protracted period of rather sluggish economic development. The combination of high export growth as well as government budget cuts expected for next year suggests that in particular Vienna, where a substantial part of employment as well as internal demand is accounted for by the non-market service sector, and Burgenland, which is also highly dependent on internal demand, will face modest growth rates of GDP. In these provinces it is questionable whether growth rates will suffice to reduce the historically high unemployment rates.

For Lower Austria, by contrast, the outlook is slightly brighter. While this province has not profited as strongly from the recovery as other industrial provinces in Austria, this is primarily due to a different export structure which is slightly less strongly focused on Germany and more strongly on the neighbouring new EU member states. As these countries emerge from crisis, one can expect above average growth to resume.

*In the Czech CENTROPE the crisis had a slightly stronger and more protracted impact*

The Czech part of the CENTROPE, South Moravia, is a rather heterogeneous region formed by two main areas: the Brno agglomeration and the southern rural border area. As was the case for the Czech Republic as a whole, this region was increasingly affected by the economic crisis as of 2008. Following the preceding boom years 2005 to 2007 with growth rates of over 6%, the Czech economy slowed down to 2.5% of GDP growth in 2008. In 2009 the Czech economy went through the deepest decline in GDP (-4.1%) since 1991.

This adverse macroeconomic situation is also reflected in the development at a regional level. Between 2005 and 2007, South Moravia experienced a strong boom that peaked in 2006, when GDP grew by 8.1%. In 2008 the economy of South Moravia faced a perceptible downturn as the growth rate dropped to 2%, whereas the rate of unemployment still decreased by 1.2 percentage points to 6.2%. In 2009 the impact of crisis fully influenced economic activity in the Czech Republic as well as in South Moravia. The regional unemployment rate increased to 8.9%. Furthermore the influence of the crisis can be illustrated by a significant decline of manufacturing industry and construction. Industrial production decreased by 19% in terms of revenues from market sales and 16% in terms of total number of employees. Basic construction output declined by 11%. In addition to that the number of visiting tourists decreased by 12%.

The forecast for 2010 expect the Czech economy to grow by 2%. In the first half of 2010 a substantial recovery of industry and exports was observed on the national level. However, this is not the case in South Moravia. Here industrial production (measured by revenues from market sales) decreased by 1.1% which is the fourth worst result among all Czech regions. Employment in manufacturing declined by 15.8%. This is the highest decline among the NUTS 3 regions in the Czech Republic. Similarly, basic production in construction plunged by nearly 36% compared to the previous year in the first half of 2010 and despite a marked decrease in the number of employees, productivity of labour also witnessed a deep drop of 16.3%. Trends in tourism are slightly less negative. Yet the decline in tourist arrivals to the Region from 2009 continued although its pace slowed down to -4.7%. Recent statistical data thus suggest that South Moravia has been affected by the economic crisis more severely than the majority of the Czech administrative regions. The results in 2008 and 2009 are still relatively comparable with the national values, but the data for the first half of 2010 indicate continuing recession mainly in the secondary sector which accounts for roughly a third of total GVA in South Moravia. Thus, the outlook for 2010 – in contrast to the fast recovery expected in many other CENTROPE regions – suggests a continued stagnation.

Considering the medium-term perspectives of South Moravia, however, the biggest development potential rests in the knowledge economy. This is due to the position of Brno as a significant university centre characterized by the concentration of a number of scientific and research centres. Apart from a range of other activities, two projects of national significance are being developed currently in Brno, whose respective budgets total to around € 200 mil. and which attempt to obtain additional funds from the European sources.

*In the Hungarian CENTROPE the more diverse regions were less strongly affected*

The Hungarian CENTROPE, which consists of the regions of Győr-Moson-Sopron and Vas, was also more strongly affected by the crises than the Hungarian average due to a strong export oriented manufacturing sector. In particular this region felt the decline in industrial production at the end of 2008 more severely than other Hungarian regions that are more strongly focused on national demand. This led to a slightly more severe decline in employment and a substantially larger increase in unemployment than in the Hungarian average. Industrial production declined by 25.0% (-18.6% in the national average) and unemployment increased by 48.3% (national average +16.7%) in the Hungarian CENTROPE in 2009. The only positive signals in this year stemmed from an increase in the number of foreign tourists from nearby countries, who obviously took advantage of the low exchange rate of the Forint, and from construction, which profited from the implementation of a number of EU-financed construction projects.

However, the data also provide some indication that as an aggregate the Hungarian CENTROPE – on account of the favourable development of foreign trade – is also emerging from the crisis more rapidly than most other Hungarian regions. Technical production of industry has increased by 11.5% in the first half year of 2010 and the announcement of major investment plans of some important producers in the vehicle and machinery industry at the beginning of this year suggest some increase in the dynamics of the region already in 2010 and 2011. Furthermore the high export openness of the Hungarian CENTROPE also suggests that this region should be less strongly affected by the Hungarian governments budget cuts in the next years than other regions.

There are, however, important differences in structural starting conditions between the two regions of the Hungarian CENTROPE. In particular in the current phase of stabilisation in particular Győr-Moson-Sopron has a better relative position than Vas and differences in economic indicators are growing between the two counties of Hungarian CENTROPE. Furthermore, in the Hungarian CENTROPE there is also some evidence of increased spatial interdependence in settlement patterns in terms of the suburbanisation process of Bratislava across the Hungarian border. Interestingly, although this process started in the direction of Austria some 4 to 5 years ago, it seems to have gained in the direction towards Hungary in the years before the start of crisis.

*The Slovak CENTROPE region has been fast to recover dynamics*

The Slovak part of the CENTROPE, which consists of the two most developed regions in Slovakia - Bratislava region including the capital city of Bratislava, and Trnava region - after a

protracted period of rapid growth that peaked in 2007 - entered recession together with the Slovak economy in 2009. In contrast to the other regions of the CENTROPE, here the development – aside from the impact of crisis - was also influenced by the adoption of the common European currency in 2009. This is expected to contribute to increasing integration of the Slovak CENTROPE regions into the EU by lowering transaction costs, exchange rate volatility and administrative and accounting costs as well as contributing to increased price comparability and lowered capital borrowing costs. In 2009, however, the depreciation of neighbouring countries currencies against the euro made the Slovak economy less price competitive temporarily. As these currencies quickly appreciated close to the pre-crisis exchange rates against the euro again, however, this effect faded out rather quickly.

Thus the crisis and the associated decline in export demand seemed to have a more important impact on regional development in 2009 than EURO adoption. Here, similarly to the Austrian case, the Slovak CENTROPE regions, performed better than the national average during the first complete crisis year 2009. Although unemployment rates almost doubled (reaching 4.4% in Bratislava region and 8.4% in the Trnava region), they remained substantially lower than the national unemployment rate of 12.7% in 2009. In addition the Bratislava region with its high share of services experienced better development than the export dependent Trnava region, which contributed about 4.1 percentage points to the increase in the region's unemployment rate and a decline in economic activity throughout.

For 2010, the expected economic recovery in the main export markets is expected to contribute to real GDP growth which is expected to amount to 4.0% - 4.2% in 2010 in Slovakia. This is likely to benefit also the Slovak CENTROPE as in 2010 the recovery of main export markets already resulted in an increase of average nominal wages in Bratislavský region by 5.4 % and 5.7 % in the Trnavský region in the first three quarters of 2010; the sales growth in both regions along with a decrease in the number of employees in industry resulted in an impressive increase of labour productivity by 20.1 % in Bratislavský region and 17.9 % increase in the Trnavský region.

This should in the near future also lead to decreasing unemployment especially in the Trnavský region (where unemployment reached 12.3% in the first three quarters of 2010). Here, the recovery of external demand together with gross capital formation will be the main driving force behind nationwide economic growth. The planned cuts of 1.7 bill EUR in public spending will have a negative impact on GDP growth in both regions. However, considering the openness of the Slovak CENTROPE and its dependence on external demand, these fiscal restrictions may be expected to have relatively small impact on overall economic performance and the Slovak regions are assumed to resume growth rapidly.

The potential long-run impact of the global recession on unemployment and manufacturing, is, however, highly dependent on the development of external demand. The economic structure (with 63.4% of overall turnover created in manufacturing of computer, electronic and optical devices and manufacture of motor vehicles) and strong position of large enterprises make employment growth in particular in Trnavský region strongly dependent on these sectors.

### **Common policy challenges in recovery**

In sum – despite some regional variation – the currently available information suggests that most of the regions of the CENTROPE have emerged from the economic crisis more rapidly than expected and that the CENTROPE will continue to grow faster than the European average in the post recession period. Nonetheless the common experience of the crisis has created a number of new policy challenges (and reinforced pre-existing ones) and – in the face of increasingly scarce government funds - increased the necessity for co-operation.

#### *Improving the institutions and data situation for cross-border spatial planning*

In particular, as highlighted above, the process of convergence is likely to change the spatial configuration of the region and may give rise to conflicting interests with respect to land use patterns. This in conjunction with the high population density in many parts of the region, its rapid economic growth as well as the many natural sites of high environmental and also touristic value, which are bound to give rise to conflicting interests with respect to land use patterns, will make initiatives to encourage transparent and open processes to co-ordinate cross-border spatial planning increasingly important in the future. In this respect one could for instance think of creating additional cross-border institutions to improve the current situation with respect to spatial planning.

Irrespective of its concrete form, these institutions would, however, face serious data constraints since the lack of reliable and comparable data on a regional and even more so on a local level is currently one of the most severe impediments to any such initiative. Currently data availability from (comparable) EUROSTAT sources is restricted to rather aggregate indicators that often lack the (sectoral and regional) detail necessary for spatial planning processes and certain indicators (e.g. land use patterns, housing and land prices and others) are available only for very few regions, and even when available suffer from lacking comparability. Thus any initiative at creating cross-border spatial planning institutions should go hand in hand with data development initiatives.

### *Reducing cyclical risks by diversifying the industrial structure*

In addition an important feature of regional development in the aftermath of the economic and financial crisis shared by almost all parts of the CENTROPE is that more diversified and urban regions and regions with a more knowledge intensive industrial base have been more resilient to the economic crisis than regions that are more strongly focused on a few industries or that have a lower technological base. Furthermore, a second important result is that as convergence within the CENTROPE continues, technological and human capital factors will become an increasingly important determinant of the comparative advantage. This first of all suggests that, while strategies focusing on providing ideal conditions for only a few industries can be highly successful in times of good economic growth, they also bear a certain element of risk in times of recession or structural decline of this industry. A diversified economic structure either in terms of a broad sectoral and technological mix or in terms of a diversified functional specialisation is thus one way to insure against such cyclical variations.

### *Fostering knowledge economy*

Second of all, it suggests that measures to foster the knowledge economy will be an important determinant of future comparative advantages in this region. The CENTROPE disposes of some important preconditions to be a strong pole of knowledge economy development in Central Europe. The capital cities of Vienna and Bratislava and also Brno are large university cities and important hubs of knowledge and research. All told there are 25 public universities and art academies as well as ten universities of applied sciences in these three cities. In addition several hundred non-university research institutions and numerous technology-oriented and research-focused enterprises work in the CENTROPE. There are, however, also some weaknesses related to a low share of R&D expenditures and a human capital structure that is strongly focused on intermediate skill levels in many CENTROPE regions. On an international scale the CENTROPE is characterized by a large breadth in terms of research institutions, but a rather narrow peak. It is therefore important to intensify the cooperation in international research programmes within the CENTROPE. Available co-financing opportunities from European sources could be a strong incentive in this field; additional incentives for cross-border research could be another. Furthermore policy could aim to create and improve conditions for attracting graduate and postgraduate students as well as young scientists especially in technical disciplines in the region. This for instance could be achieved both by increased co-operation of educational institutions and increasing researchers' mobility.

### *Integrating sectoral policies*

Aside from these measures directed at increasing excellence, policies directed at the improved cross border co-ordination of sectoral policies also could contribute to diversifying the risk structure of the CENTROPE. One case in point is tourism, which contributes an important share to GDP in many of the economies of CENTROPE and where results suggest that, apart from the urban agglomerations, many of the CENTROPE regions present relatively similar rural areas in which touristic development focuses on spa resorts of regional significance, wine production, as well as other aspects of wellness and weekend tourism. Yet casual observation suggests that co-operation between regions in developing tourism are still limited to a few cases only. Other cases in point are for instance the automobile cluster in the region, which has, however, already received attention in a number of previous studies, and the business services and consulting services sector, which is of particular importance in the urban agglomerations of the CENTROPE and which, on account of differences in transportability of services, is characterised by quite different internationalisation patterns than in the case of industry. Here again existing policies towards this sector in individual regions could be more closely co-ordinated.

### *Further development of existing co-operations in active labour market policy*

Such a policy will have to be supported by appropriate labour market policy measures. Here employment rates among the population with completed primary education have been persistently low and even declined despite extended phases of rapid economic growth in some of the CENTROPE regions. In addition, in many parts of the region it is expected that growth will not suffice to ensure a reduction of unemployment. This suggests that combating unemployment and in particular long term unemployment and thus avoiding the associated risk of de-qualification will be a major shared problem in many parts of the CENTROPE. Aside from sound macro-economic policies, which, however, can be influenced only in a rather indirect way by regional governments, efficient active labour market policy and upgrading of skills of the low and medium skilled segment of the labour market through policies to ensure a higher participation in life-long learning is definitely one important element in designing regional economic policy in a cross-border context. These policies are important not only from a short term but also from a long term perspective, since the experience of the boom 2006-2008 shows that in many CENTROPE regions labour shortages arise rather rapidly (and at quite high unemployment rates) when employment conditions are improving.

### *Improving cross-border labour mobility*

In addition the preliminary results of a study conducted parallel to this project suggest that the CENTROPE is in general a region from which more high skilled workers emigrate than immigrate and which thus faces the risk of brain drain. Aside from the still existing institutional restrictions on cross-border labour mobility on the Austrian labour market (which has led cross-border commuting to Austria to be rather unimportant given the wage differences, but will disappear on 1<sup>st</sup> of May 2011), empirical and anecdotal evidence suggests that cross-border worker mobility is also hampered by difficulties of mutual skill recognition (due to different educational systems), risks of over-qualified employment and difficulties in gaining information. This suggests that existing initiatives aimed at improving cross-border placement activities for workers, improving the comparability and cross-border transferability of qualifications as well as providing information on labour market possibilities for workers should be strengthened, with the aim of making the CENTROPE as a whole an integrated labour market in particular for the high skilled, thereby reducing the potential for brain drain.

### *Complementing labour supply side measures by policies focused at labour demand*

Aside from these labour supply side measures it should also be noted that labour demand side measures are an important aspect in the development of labour market policies. In this respect there is a close relationship to the diversification of the production structure. One of the findings of this report is that many regions in the CENTROPE are still characterised by low shares of services in the sectoral structure of both GVA and employment. A number of studies have, however, shown that services industries are particular effective in creating employment for less skilled workers. Policies directed at attracting mostly industrial FDI could therefore be augmented by cross-border policies aiming at the development of the service sector. Indeed, aside from aiming at the currently highly industrialised regions, such a strategy could also be of primary importance for the urban agglomerations of the region, where business services are today already a major sector in terms of employment.

**Factsheet 1: The CENTROPE and its regions: Area, Population and GDP**

	Austria		Czech Rep.		Hungary			Slovakia			CENTROPE	EU 27
	Burgenland	Lower Austria	Vienna	South Moravia	Győr Sopron Moson	Vas	Bratislava	Trnava				
	<b>Population, Population Structure &amp; Area</b>											
Area (km <sup>2</sup> )	3,965.5	19,177.7	414.7	7,196.3	4,208.5	3,336.1	2,052.6	4,147.2	44,499.0	4,403,356.7		
Population (2008)	281,185	1,596,538	1,674,909	1,140,534	444,384	261,877	610,850	557,151	6,567,428	497,670,577		
Share Females (%)	51.0	51.0	52.2	51.3	51.7	52.0	52.6	51.3	51.6	51.2		
Share aged 15 or less (%)	13.9	15.6	14.4	13.9	14.6	14.1	12.9	14.4	14.4	15.7		
Share aged 65+ (%)	19.7	18.2	16.4	15.2	15.4	16.3	12.5	12.1	16.0	17.0		
	<b>Population Forecast</b>											
Population 2020* (2010=100)	101.2	104.5	107.9	101.4	99.0	99.0	102.9	99.5	102.8	-		
Population 2030* (2010=100)	103.4	109.7	115.3	100.5	96.7	96.7	102.1	96.8	104.4	-		
Share aged 15 and under 2030* (in %)	59.9	61.0	65.8	64.2	64.2	64.2	66.7	11.1	64.2	-		
Share aged 65 and more 2030* (in %)	27.8	24.8	18.9	22.3	23.3	23.3	21.5	23.2	22.5	-		
	<b>GDP, Productivity Compensation per employee</b>											
GDP per capita at PPS (2007)	20,261	24,926	40,616	18,317	17,524	14,649	39,911	20,402	24,960	27,677		
Nominal GDP growth (average annual change 2004/2007)	2.9	4.3	3.8	7.5	3.9	1.7	13.2	16.4	6.0	5.2		
Productivity (GDP per employed) 2007	48,860	57,939	73,144	36,936	39,471	33,567	57,811	49,287	55,709	55,691		
Compensation per employee (nominal 2006)*	31,910	34,034	42,636	11,336	9,934	9,934	12,398	4,465	22,131	-		
Compensation per employee (at PPS)	27,726	29,575	36,388	12,328	12,645	12,645	10,303	15,714	-	-		
	<b>Forecast GDP and Employment Growth</b>											
GDP Growth 2009	-3.5	-3.8	-2.5	-4.1	-9.3	-10.0	-4.0	-8.2	-3.5	-4.4		
GDP Growth 2010	+1.2	+2.0	+1.7	+0.7	+1.2	-1.2	+3.6	+2.9	+1.8	+1.1		
GDP Growth 2011/14 (average annual growth rate)	+1.5	+2.1	+2.2	+3.4	+3.5	+0.8	+4.0	+4.3	+2.4	+2.3		
Employment growth 2009	-0.9	-0.9	-0.5	-1.2	-3.7	-6.7	-0.3	-4.8	-1.3	-1.9		
Employment growth 2010	-0.6	-0.5	-0.3	-1.5	-0.6	-1.8	+0.2	-0.2	-0.6	-1.1		
Employment growth 2011/2014 (average annual growth rate)	+0.5	+0.7	+0.9	+0.7	+1.2	+1.1	+1.9	+1.7	+1.0	+1.2		

S: Eurostat, Cambridge Econometrics, own calculations \* Data available only available at NUTS 2 level, Data for Trnava includes West Slovakia, Data for South Moravia includes Czech Southeast, data for Győr and Vas is data for West Transdanubia. - = data not available

