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A Preliminary Overview of the Possible Importance of Financial Markets for the Development of the CENTROPE Region

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1. Introduction

This article attempts to provide a preliminary overview of the possible importance of financial markets for the development of the CENTROPE region (also known as the Central European Region) and the role of the Austrian banking system in this connection.

Section 2 provides an overview of the theoretical basis and the empirical manifestations of the connection between the development of the financial system and the evolution of the real economy. Wide-ranging literature is available on the *finance-led* theory, proving that development in the financial markets has a positive effect on economic growth. The empirical section commences with a brief presentation of the Bertelsmann Foundation's Transformation Index, which describes the complex political/economic interrelationships upon which this connection is based. This is followed by a description of the *gap analysis*, which takes advantage of the fact that the development of financial markets goes hand in hand with real economic performance, in order to estimate the potential of the financial market in the Central European Region. The results of this analysis show that the CENTROPE region has substantial potential for growth in the financial sector.

Section 3, an overview of the financial systems in the Central European Region, shows that Austrian banks, through direct investments, have seized the opportunity provided by the CENTROPE region. Expanding their domestic markets into Central and Eastern Europe enabled Austrian banks to take advantage of scale effects in the financial sector, while, at the same time, the entry of Austrian companies into these markets was facilitated by the presence of Austrian banks. Despite the resulting high credit exposure in the CENTROPE countries, the stress tests conducted by the Oesterreichische Nationalbank (OeNB) and the Austrian Financial Market Authority (FMA) show that the Austrian banking system has

made sufficient provisions for times of crisis. Inversely, however, the presence of Austrian banks in Slovakia, the Czech Republic and Hungary may cause problems for the financial sector in the host countries. For this reason, we will touch briefly on regulatory policy to show that the CENTROPE countries satisfy relatively high regulatory standards, not least because of the substantial presence of foreign (primarily Austrian) banks.

2. Connection between the Financial System and Economic Growth

2.1 Theoretical Considerations: Scale Effects Play a Role

We start with a summary of literature regarding the connection between the level of development of the financial system and the overall real economic conditions. In the standard model of perfect competition, there is no room for the financial system. Imperfections in the market and transaction costs are central to the relationship between the financial system and economic growth. The main focus is placed on theories that represent a finance-led thesis and prove that the development of financial markets has a positive effect on growth. Agglomeration effects and scale economies play an important role in the development of financial markets. Drawing on relevant literature, it can be seen that the positive correlation between finance and growth is produced by a complex political/economic process. An empirical manifestation of this correlation can be seen in the Bertelsmann Transformation Index (BTI), which is briefly discussed in section 2.2.1. The five criteria for political transformation and the seven criteria for economic transformation are presented in the annex.

Levine (1996) argues that the connection between finance and growth is primarily caused by imperfections in the market. Information and transaction costs are the main reasons for the emergence of financial markets for which the standard competition model makes no allowance. The basic functions of financial markets – savings mobilization, ensuring resource allocation and exerting external corporate control, facilitating risk management, easing the exchange of goods and services, and hedging contracts – support capital accumulation and technological innovation and thus influence economic growth. This also includes the positive role of the financial sector in corporate governance.

Furthermore, Levine also shows that the general level of economic development and typical indicators of financial market performance go hand in hand.

In his article on the connection between the financial sector and economic growth, Bisignano (2003) stresses that the contribution of the financial sector to economic growth consists of a credible obligation of the state to offer the public good that contributes to reducing transaction costs by *providing and enforcing a regulatory framework*. This means a sound system of corporate governance, an efficient financial market supervisory authority, financial transparency and a

system of enforceable contracts and functioning arbitration and bankruptcy procedures. “The potential contribution of the financial sector to economic growth increasingly appeared to depend on what Douglas C. North stressed in his work on institutional structure and change in economic history: the credible commitment of the state to ‘provide the public good of a set of rules and their enforcement designed to lower transaction costs’.” (Bisignano, 2003, p. 295).

The empirical analysis of the connection between the financial system and economic growth is difficult insofar as the previously mentioned functions fulfilled by developed financial markets are certainly convincing from an intuitive point of view, but are difficult to assess in quantitative terms. Credit volume, as well as market size and liquidity, are the most commonly used indicators, but they provide, at best, an initial indication of the state of development of a country’s financial market (see also Levine, 2003). Or, as Eugene N. White (2003) aptly says: “As contemporary research on the connection between finance and growth has discovered, many of the clues to growth are not found in the statistics but in the laws, regulations, and customs that govern economic activity.”

It follows that the development of an economy, particularly in terms of the connection between financial systems and growth, must be seen as an interplay between economic competition, financial companies and the regulatory procedures imposed and implemented by government authorities. “Political authority and markets can be regarded as analytical parts of an integrated ensemble of governance, the *state-market-condominium*. Change occurs simultaneously through the process of economic competition among firms on the one hand, and policy and regulatory processes mediated by the institutions of the state, on the other.” (Underhill, 2004, p. 21).

This political/economic connection is well depicted by the Bertelsmann Transformation Index (BTI). As it includes both economic and political indicators, the BTI seems particularly suited to providing initial insight into the relationship between the financial systems of Slovakia, the Czech Republic and Hungary and the development of economic growth in this region. The BTI results for Slovakia, the Czech Republic and Hungary will therefore be discussed in the following section (2.2.1.).

The theory of development economics underscores the positive impact of the financial system on the general development of national economies. The importance of the financial system for the development of the market economy is particularly stressed by institutions concerned with development policy. The German Development Bank (KfW), which, on behalf of the federal government and the Laender promotes the German economy and acts as a development bank for transformation and developing countries, is now placing particular emphasis on the importance of the financial sector for economic development policy. Similarly, the German Federal Ministry for Economic Cooperation and Development

describes the financial system as the (or at least one of the) key elements for its development strategy.

Therefore, a number of important empirical and theoretical works that follow this finance-led theory, namely that the financial markets are instrumental in fostering general growth, will be discussed in closer detail.

According to Beck et al. (2004), the development of the financial system accelerates economic growth by removing growth constraints, *especially for small, dynamic companies*. The paper also empirically confirms that financial development lowers transaction costs and informational barriers.

In an EU Economic Paper, Giannetti et al. (2002) estimate the positive impact of financial market integration and the development of financial markets in Europe on the growth of value added in the manufacturing industry at almost one percentage point per annum, between 0.75% and 0.94% depending on the scenario used. It is primarily *small and medium-sized enterprises* that benefit from financial market integration as they are affected far more strongly by local imperfections in the financial markets than are larger companies. Because of their larger area of activity, it is easier for larger companies to overcome local financial market imperfections, and they are therefore less affected by underdeveloped financial markets.

Wörgötter (SUERF Seminar, “The Future for Private Banking in the New EU Member States of Central and Eastern Europe,” June 2005) finds the lack of financial market integration, characterized by the lack of pan-European financial systems and institutions and thus the *failure to take advantage of scale effects*, as an important reason for the weak European growth rates. The importance of scale effects within the financial sector is also evident from an internal OeNB study on regional economic concepts (Schuh, 2004). By increasing the volume of loans granted to *small and medium-sized enterprises* in the EU new Member States, which is relatively low at present, the catch-up process of these countries could be accelerated.

Rousseau and Sylla (2001) attempt to underpin the finance-led hypothesis with a theoretical economic analysis by combining two strands of research in economic history, namely the impact of financial developments on economic growth and financial globalization. They argue, based on a historical survey, that financial development was the cause of real economic development and that financial development goes hand in hand with integration into the global financial market and the international trade system. “The results, when combined with the evidence presented from historical case studies of the Dutch Republic, England, the U.S., France, Germany and Japan over the past three centuries, suggest that the economic growth and increasing globalization of the Atlantic economies might indeed have been ‘finance-led’.” (Rousseau and Sylla, 2001, p. 39). Both the historical and the theoretical economic analyses also show that this connection must be embedded in a comprehensive institutional context in order to be successful (see Bisignano,

Underhill and Douglas North above). This again underscores the necessity for a comprehensive political and economic analysis.

In an inversion of the finance-led argument, the level of development of the financial system can also be viewed as an indicator for the existence of factors that form the basis for economic growth, such as a stable and achievable regulatory and legal system. This circumstance results in foreign investors starting to show an interest in this kind of market. The proportion of foreign investors in the financial sector can thus also indicate a country's existing and potential economic growth. In this connection, it is not surprising that a strong correlation exists between the probability of joining the EU and the market share of international banks. "An interesting picture is provided by the examination according to country groups. Whilst the market shares of international banks in the new EU Member States is relatively high, they decrease step-by-step the less EU enlargement fantasies exist." (Banking Market in CEE, 2004).

Irrespective of the actual causal direction, empirical findings show that real economic development and the degree of financial intermediation progress at the same rate. Economic growth and the development of the financial system go hand in hand (see section 2.2.2., Credit Gap Analysis). At the same time, financial deepening coincides with increased complexity in the financial system. In a more complex financial system, however, scale effects play an important role. According to Cesare Calari, vice president of the Financial Sector of the World Bank, the new Member States are a clear example of this fact. As the financial markets in the individual countries are too small, the scale effects are used by foreign subsidiaries and branches (Conference on European Economic Integration, 2005).

With reference to the following discussion, it should be noted that the functional approach is preferable when investigating the connection between the financial system and economic growth in literature (see Levine, 1996; Blommestein and Schich, 2003), as, over time, the functions fulfilled by the financial system are more stable than those of institutions (this term is frequently used to denote banks). The financial system (for example, in Rousseau and Sylla, 2001) is, however, defined very comprehensively:

1. sound public finances and efficient public debt management;
2. stable monetary arrangements;
3. a diversified banking system;
4. an efficient central bank to stabilize domestic and international finances;
5. a well-functioning securities market.

Nevertheless the main section of this paper will concentrate on the banking system within the financial sector, following an overview of the political and social environment. The reason for this approach lies in the fact that this study primarily describes the importance of the financial systems in the individual countries on the basis of the works produced by the OeNB.

A further limitation results from the theoretical deliberations outlined above. Comparisons with developed countries can only ever have limited meaning. This is because development progresses differently in different countries, depending on the institutional framework, and because technological development means that Eastern European financial systems are developing in a fundamentally changed environment.

2.2 Empirical Manifestations of the Connection between Finance and Growth

2.2.1 The Bertelsmann Transformation Index Places the CENTROPE Region in an Advanced Position in Terms of Democracy and Market Economy.

The Bertelsmann Transformation Index (BTI) appears to be well suited to empirically model the complex political and economic context in which the connection between finance and economic growth develops. The countries within the CENTROPE region rank at the very top of the BTI.

The Bertelsmann Foundation subjects 116 countries to an exhaustive analysis of the transformation process toward a market-based democracy. Five political and seven economic criteria are evaluated on the basis of a point scale from one to five, with five being the best rating. The unweighted average of the ratings for the five political and the seven economic criteria provides the scores for the dimensions *political transformation* and *economic transformation*. The Status Index represents the average total of the results for *political transformation* and *economic transformation*.

The annex sets out the 12 criteria used by the Bertelsmann Foundation and contains Internet links to the detailed reports for the CENTROPE countries.

The countries that were investigated within the project "The Future of the Central European Region" (Slovakia, the Czech Republic, and Hungary) are at the top of the rankings. Hungary leads the table with 9.7 of 10 possible points. The only sectors in which Hungary did not receive the highest point score were currency and price stability, as well as sustainability (environmental and research and development). Slovakia and the Czech Republic are in second place, together with Lithuania and Slovenia. This puts them in front of Poland, which ranks seventh, and also in front of Chile and South Korea, poster countries for the market economy, which follow in eighth place. Bulgaria and Romania, both participating in the next round of enlargement, are listed in 18th and 21st place respectively, and Turkey comes in at 25th place.

2.2.2 Credit Gap Analysis

Commercial banks use an approach commonly referred to as *gap analysis* to evaluate market potential. In countries with lower per capita income, the ratios of the banking and financial markets in relation to GDP are typically lower than those for more highly developed industrialized nations. Because an assimilation of the degree of financial intermediation can be expected as the real economy converges, above-average growth is also likely to occur in the financial sector (see Arpa et al., 2005).

The following table compares the key financial indicators of the CENTROPE countries with those of the euro area and the eight new Member States (NMS) from Central and Eastern Europe as at the end of 2004.

Table 1: Indicators of Financial Intermediation in CENTROPE

| | EU-12 % of GDP | NMS-8 % of GDP | CZ % of GDP | HU % of GDP | SK % of GDP | AT % of GDP |
|--------------------------------------------------------------------|------------------------------------------|-----------------------------------------------|-------------------|-------------------|-------------------|-------------------|
| Banking assets (1) | 283 | 83 | 98.4 | 84.5 | 90.0 | 277.7 |
| o/w: domestic loans total | 170 | 50 | 57.0 | 60.2 | 53.5 | 151.5 |
| o/w: domestic loans to the corporate sector | 50 | 22 | 19.7 | 30.8 | 19.7 | 46.8 |
| o/w: domestic debt securities | 42 | 16 | 15.2 | 13.0 | 24.9 | 15.2 |
| o/w: domestic equity securities | 13 | 1 | 0.7 | 1.3 | 0.4 | 3.6 |
| Domestic debt securities (2) (outstanding nominal value) | 119 | 44 | 56.4 | 62.1 | 38.1 | 130.4 |
| o/w: issued by non-financial corporate sector | 17 | 3 | 3.6 | 0.9 | 2.4 | 8.6 |
| Domestic equity securities (3) (market capitalization) | 58 | 28 | 37.1 | 26.3 | 10.9 | 26.9 |
| <i>Memorandum item:</i> | <i>EU-15 % of banking assets</i> | <i>NMS-10 % of banking assets</i> | | | | |
| <i>Share of bank assets held by foreign banks</i> | 13 | 68 | 96.0 | 83.3 | 96.3 | – |

Source: OeNB.

The ratio of total banking assets and total domestic loans to GDP in the CENTROPE countries is approximately one-third of the ratio in the euro area. In the personal loan sector, the discrepancy is even greater. At 7% of GDP, their share is substantially lower than the ratio of 49% in the euro area (see Financial Stability

Report 8, p. 35). This market segment experienced in the recent past high growth rates.

Bond issues relative to GDP are around one-half of the euro area average in Hungary and the Czech Republic and approximately one-third of the euro area average in Slovakia, with public sector bonds dominating in all three countries. The level of debt securities issued by non-financial corporations in these countries is substantially lower: 0,9% of the GDP for Hungary, 2,4% for Slovakia and 3,6% for the Czech Republic. This means 5% of the European average for Hungary, 14% for Slovakia, and 21% for the Czech Republic. Market capitalization in these countries is also considerably below the European average.

Based on the studies carried out by Bank Austria Creditanstalt (BA-CA), the gap analysis is further extended to include credit levels in Central and Eastern Europe. The results gained clearly show that the Central European Region has significant potential for market development.

High nominal growth rates in the CEE countries and the convergence of their degrees of financial intermediation lead to expectations of strong growth in the banking sector. BA-CA carried out a gap analysis in this connection and is anticipating a credit growth rate of 14% per annum over the next ten years in this region. The Czech Republic and Slovakia achieve almost exactly the average gap, while the gap for Hungary is slightly below average. This analysis can also be interpreted as an empirical manifestation of the connection between growth and development shown in section 2, because it presumes that the degree of financial intermediation is positively correlated with rising per capita income.

An analogous situation exists on the assets side. Assets in general, and particularly higher value asset items, such as life insurance, mutual funds and pension plans, are underdeveloped in comparison to income. While in 2004 the share of managed assets (life insurance, pension and investment funds and deposits) in total income came to 126% in the euro area and 109% in Austria, this figure was 52% in the Czech Republic, 41% in Hungary, and 35% in Slovakia (see Bank Austria Creditanstalt, April 2005, p. 6). A higher rate of income growth and an increase in the ratio of fund products to GDP represents a double opportunity for growth. As a result, the volume of managed assets in the CENTROPE countries grew substantially more strongly than in Austria and the euro area: in the period from 2001 to 2004, the volume of life insurances and pension funds rose by 110% in Hungary, 57% in the Czech Republic, and 92% in Slovakia, which is substantially faster than in Austria (19%) and in the euro area (20%). The same applies for fund assets (Bank Austria Creditanstalt, April 2005, p. 7).

Given this background, Central and Eastern Europe in general and the Central European Region in particular can be seen as the main growth market for Austrian banks. This is also equally or even more true for Southeastern Europe.

3. Summary of Financial Systems in the Central European Region

The CENTROPE region is considered to be particularly attractive for foreign direct investment (FDI) as this region is characterized by an excellent level of political/economic maturity, as shown by the Bertelsmann Transformation Index discussed above, and simultaneously has great growth potential (Podkaminer/Stehrer 2005).

Following Slovenia, the Czech Republic, Hungary and Slovakia are the most highly developed countries in Central and Eastern Europe. According to WIFO calculations (Palme, 2005), the 2004 GDP per capita at purchasing power parity reached 70.3% of the EU-25 level in the Czech Republic, followed by Hungary and Slovakia at 61.1% and 52.0% respectively. The wealth of Central Europe as a whole, expressed by the weighted average of all four countries of the CENTROPE Region, was 85.7% of the EU-25 level in 2004.

Table 2: Wealth of the CENTROPE Region in Comparison to the Surrounding Regions

| | 2002 GDP per capita at PPP (EU-25 = 100) | | |
|------------------------------------------|---------------------------------------------|-------|-------|
| Central European regions CENTROPE (8) | 18,507 | | 87.4 |
| outside CENTROPE (16) | 13,726 | | 64.8 |
| Significance ¹⁾ | | 0.172 | |
| Central European regions Austria (5) | 24,304 | | 114.8 |
| CEEC-3 (19) | 12,955 | | 61.2 |
| Significance ²⁾ | | 0.002 | |
| Central European regions Austria (5) | 24,817 | | 117.2 |
| CEEC-3 (19) | 14,721 | | 69.5 |
| Significance ³⁾ | | 0.126 | |

Source: Eurostat, WIFO calculations. Figures in parentheses indicate the number of regions.

¹⁾Probability of error for the significance of the differences between CENTROPE regions and Central European regions outside CENTROPE (comparison of averages). ²⁾Probability of error for the significance of the differences between Central European regions in Austria and the CEEC-3 (comparison of averages). ³⁾Probability of error for the significance of the differences between CENTROPE regions in Austria and the CEEC-3 (comparison of averages).

Source: Palme (2005).

However, the level of wealth in the CENTROPE regions is still higher than in the surrounding regions of the four CENTROPE countries, as is shown in the table above, which compares the gross domestic product at purchasing power parities in the CENTROPE region and the regions surrounding it.

At the same time, the CENTROPE region is a dynamic growth center that is undergoing a gradual process of convergence. In a study commissioned by the OeNB, the Vienna Institute for International Economic Studies (wiiw) evaluated the growth prospects of the Central European countries where the CENTROPE region is located (Podkaminer and Stehrer, 2005). The annual growth differentials versus the EU-15 for the next 10 years (2005–2015) range between 0.8% and 1.4% for the Czech Republic, between 1.2% and 2% for Hungary, and between 1.5% and 2.5% for Slovakia. The resultant convergence of per capita income in these countries as compared to Austria is illustrated below.

Table 3: Projected Positions versus Austria at Constant 2004 PPP

| | 2004 | 2015 | | | 2004 | 2015 | | | |
|----------------|-------|-------------------------------|-------|-------|----------------------------|------|------|------|--|
| | | low | base | high | | low | base | high | |
| | | per capita | | | total (EUR billion) | | | | |
| Czech Republic | 15647 | 21201 | 23088 | 24344 | 160 | 213 | 232 | 245 | |
| Hungary | 13623 | 19264 | 21195 | 22816 | 138 | 189 | 208 | 224 | |
| Slovakia | 11645 | 16822 | 19098 | 20338 | 63 | 91 | 103 | 110 | |
| Total | | | | | 361 | 493 | 543 | 579 | |
| Austria | 27104 | 33700 | 35183 | 36334 | 222 | 280 | 292 | 302 | |
| | | as % of Austrian level | | | | | | | |
| Czech Republic | 57.7 | 62.9 | 65.6 | 67.0 | | | | | |
| Hungary | 50.3 | 57.2 | 60.2 | 62.8 | | | | | |
| Slovakia | 43.0 | 49.9 | 54.3 | 56.0 | | | | | |

Source: wiiw (2005).

It is therefore not surprising that, in terms of FDI, the situation is particularly favorable for the regions constituting CENTROPE. The *Centre for Economics and Business Research (CEBR)* in London produced an investment index for 223 EU regions in January 2005 evaluating growth prospects, market potential, qualification level and *access to EU subsidies* for each region. The table of the most economically attractive of these 223 EU regions is led by 15 regions in post-communist states. These 15 include five Czech, four Hungarian and four Slovak regions. Greater Prague heads the list with 178% of the EU average. Central Hungary (Budapest), at 172%, and Bratislava (168%) occupy second and third place, followed by Western Danubia (161%) and Eastern Slovakia (160%) in seventh and eighth places respectively.

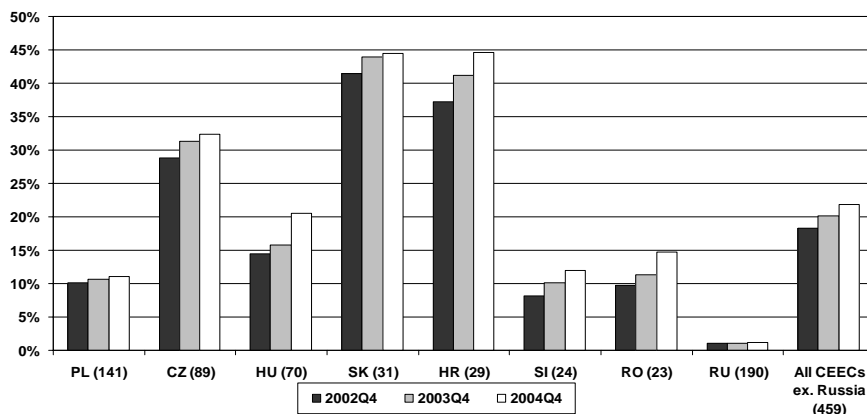
The Austrian CENTROPE regions, on the other hand, are positioned lower down the scale: Lower Austria is in 106th place at 95% and Vienna ranks 115th at 93% of the EU average (Schausberger, 2005). In this comparison it must, however, also be taken into account that the relatively poor results for the Austrian regions can be explained to a great extent by EU subsidies to which they are no longer entitled.

Austrian banks appear to have recognized this region's great potential for future development and growth. This is reflected in the volume of direct investments that Austrian banks are channeling into the Central European Region, thus also creating an important prerequisite for the access of Austrian companies to this region.

3.1 FDI – Austria Strongly Represented in the Financial Sector

The economic importance and growth potential of the region surrounding Vienna and Bratislava can be aptly illustrated by depicting the movement of FDI. Hungary had attracted the highest volume of FDI until the end of 2003, when it was overtaken by Poland. In terms of per capita FDI, the Czech Republic was the leader, followed by Hungary.

Chart 1: Market Share of All Austrian Banking Subsidiaries in Central and Eastern Europe



Note: Figures in parentheses are the total assets of the aggregate banking system in the relevant countries in EUR billion. PL=Poland, CZ=Czech Republic, HU=Hungary, SK=Slovakia, HR=Croatia, SI=Slovenia, RO=Romania, RU=Russian Federation.

Source: OeNB, Financial Stability Report No. 9.

3.1.1 Slovakia

Slovakia's initial position was less favorable than those of its immediate neighbors Hungary and the Czech Republic. Before the collapse of communism and the subsequent political and economic transition, investments primarily went into capital-intensive industries, such as arms manufacture, whose trading relations were largely concentrated on Comecon countries. The restructuring process correspondingly turned out to be very painful and was not helped along by the government after the peaceful separation from the Czech Republic. Given these circumstances, Slovakia's success from 1999 onward seems all the more impressive. With a per capita GDP at purchasing power parities of EUR 11,645 in 2004, Slovakia ranks around 25% behind the Czech Republic and almost 15% behind Hungary (Podkaminer and Stehrer, 2005).

High economic potential, a well-qualified labor force and, especially in the western part of the country, a robust infrastructure – all these factors make Slovakia particularly attractive for foreign investors. Since 2000, the level of FDI has experienced a marked increase. According to the International Investment Position, the level of FDI equaled EUR 10.5 billion at the end of 2004. This puts the per capita FDI at more than 50% higher than Poland's. The lion's share of capital inflows went to the industrial and financial sectors. The automotive and steel industries also account for a large part of FDI, with 80% of the total FDI being channeled into the western part of the country (Bratislava, Tencin and Nitra), the Slovak CENTROPE region. At the end of 2003, Austria was the third-largest foreign investor with a market share of 14%, following Germany (24%) and the Netherlands (17%).

The disproportionately high share of FDI in the financial sector is a result of the fact that this sector only accounts for approximately 2% of all employees in Slovakia, but attracts 23% of all foreign investments.

Austria is by far the largest investor in the Slovakian banking sector, controlling approximately 45% of the balance sheet total (third quarter of 2004). At present, five Austrian banks are operating in the Slovak Republic.

3.1.2 The Czech Republic

The Czech Republic is characterized by a comparatively modern industry and a low level of foreign debt. With a per capita GDP at purchasing power parities of EUR 15,647 in 2004, the Czech Republic stood at 57.7% of the Austrian per capita income (Podkaminer and Stehrer, 2005).

The high level of foreign interest in the Czech Republic as an industrial location is reflected in foreign investments, which totaled EUR 37 billion for the years 1993 to 2003. This means that the Czech Republic outperformed Hungary in terms of foreign per capita investment. According to the International Investment Position,

however, the Czech Republic comes in behind Hungary (EUR 41.4 billion versus EUR 44.2 billion).

At the end of 2003, Austria was third in the ranking of FDI with a market share of just over 10%, following Germany (31.3%) and the Netherlands (18.4%).

However, Austria's position in the Czech financial sector is well above average, with Austrian banks accounting for a market share of approximately 33%.

3.1.3 Hungary

With a per capita GDP at purchasing power parities of EUR 13,623 in 2004, Hungary achieved slightly more than 50% of the Austrian per capita income (Podkaminer and Stehrer, 2005). In Central and Eastern Europe, Hungary is surpassed only by the Czech Republic and Slovenia. Its favorable geographical location makes Hungary a bridgehead for transit trade between east and west. The country's assets include a highly qualified stock of human resources and a modern telecommunications infrastructure, developed to a level that is above average by Eastern European standards.

Since the beginning of the country's opening to the west, Hungary posted inflows of EUR 31 billion in FDI. This is equivalent to EUR 3,100 per inhabitant, a figure that is only exceeded by the Czech Republic. According to the International Investment Position, however, the stock of FDI came to EUR 44.2 billion at the end of 2004, surpassed by only one of the other new Member State, Poland (EUR 48 billion). Per capita FDI in Hungary (almost EUR 4,400), however, stood at almost four times the level achieved by Poland (EUR 1,200).

The region of Central Hungary – the area surrounding Budapest – accounts for two-thirds of total FDI. Western Transdanubia, which is part of the CENTROPE region, also enjoys above-average benefits from FDI, with a particularly high FDI concentration in the district of Győr-Moson-Sopron, also located in the CENTROPE region. A number of multinational corporations, such as Audi, General Motors, General Electric and Philips, have established operations in this region, which is in closest vicinity to Vienna.

Western Transdanubia is considered the second-most developed region, with a well-qualified labor force and a number of highly developed industries: mechanical engineering, light industry and food processing. As noted above, the district of Győr-Moson-Sopron holds a strong attraction for foreign capital. Surpassed only by Central Hungary, which includes the capital city of Budapest and the district of Pest. Western Transdanubia has the second highest number of joint venture companies in Hungary.

Following Germany (31.1%) and the Netherlands (14.7%), Austria is the third-largest direct investor in Hungary with a market share of 11.7%, but is the leader in terms of FDI per capita. In the banking sector, Austrian banks control over one-fifth of the balance sheet total.

In summary, it can be said that the Austrian banks fulfill their function as a central sector for the development of a growth cluster in the CENTROPE region in an exemplary manner. The high degree of interconnection in the region's banking market could, however, entail a certain risk of contagious effects for the individual national banking systems in the event of financial crises. Because of the Austrian banks' credit exposure in the CENTROPE region, this issue is therefore first investigated from the Austrian point of view and then from that of the neighboring countries.

3.2 Credit Exposure of the Austrian Banking System to Countries in the Central European Region

The important role of the financial systems in neighboring countries is also evidenced by the fact that the IMF's *Financial Sector Assessment Program* highlights the profitability of the Eastern European banking sector, because of the concentration of Austrian bank investments in this region, as the primary challenge for Austrian banks.

Banks' margins in the CEECs would be expected to narrow with greater market access and the resulting increase in competition. At the same time, the lower degree of intermediation would create business opportunities, thus contributing to banks' profits (see gap analysis). According to the IMF, the Austrian banks are well aware of these challenges and know that this situation requires continued monitoring and vigilance.

3.2.1 Austrian Banks well equipped to Withstand Crises in Neighboring Countries

In section 4.2 of their paper analyzing the stress tests for the Austrian banking sector, Boss et al. (2004) investigate the effects of shocks caused by adverse macroeconomic and market conditions in the Eastern European countries. They come to the conclusion that even a combination of both shocks would not lead to serious problems for the Austrian banking system because the overall capitalization level is sufficient to withstand considerable shocks. These results are confirmed by Financial Stability Reports 7 and 8.

3.2.2 Special Responsibility for Austria's Financial Market Authority?

Inversely, because of the significant role of Austrian banks in the CEECs, problems in the Austrian banking sector could have a serious impact on the financial systems in the host countries. Austrian banks account for a market share of 45% in the Slovakian banking sector. The market share in the Czech Republic and Hungary is 33% and 20% respectively. This kind of asymmetric risk distribution caused the

ECB to consider increased coordination and information exchange between home- and host-country supervisory authorities.

“A foreign branch in the new Member States may have systemic importance in the host country even though it only represents a relatively modest share of the group’s total operations. In this case, a potential conflict may emerge between home country control in micro-prudential supervision and host country responsibility in safeguarding financial stability. This highlights the need for enhanced coordination and information-sharing between host and home supervisory authorities. Bilateral agreements between national authorities can alleviate the information asymmetry problem and the increasing number of Memoranda of Understanding between NMS and EU-15 authorities in recent years may be seen as an encouraging sign in this respect.” (ECB, 2005, p. 7).

Does the expansion of Austrian banks’ domestic market into Central and Eastern Europe in general and the Central European Region in particular imply that these banks and the Austrian Financial Market Authority bear a special responsibility for ensuring the stability of the financial markets in the host countries? This certainly requires diplomatic instinct as these countries, given their historical experience, could possibly interpret any moves in this direction as unwarranted paternalism.

The analysis of the financial market stability of these countries gains an additional dimension in the convergence process discussed in section 2.2.2. (Credit Gap Analysis). It is difficult to distinguish empirically whether strong growth in credit volumes is based on structural convergence in financial intermediation or whether it is driven by a cyclical credit boom. An overly relaxed monetary and financial supervisory policy could foster excessive credit growth. On the other hand, an excessively restrictive policy could hamper the process of convergence in financial intermediation and thus impede the real economic convergence process.

We can thus conclude that the questions regarding the connection between macrofinancial stability and microeconomic supervision and the division of responsibility for regulation and supervision are of particular interest to the authorities in the Central European Region (see Srejber, 2005). Provided the authorities in these countries cooperate in an exemplary manner, it should be possible to avoid any potential conflicts of interest (Vesala, 2005).

The governor of the OeNB, Dr. Liebscher, expressed similar sentiments in his opening statement at the *Conference on European Economic Integration* (November 14 and 15, 2005) in his contention that financial market integration across borders results in a growing need for cooperation among supervisory authorities, as large financial institutions may be subject to foreign control: “The cross-border character of financial integration and the emergence of large, potentially systemically relevant entities under host country jurisdiction require cooperation between national supervisory agencies to ensure an effective exchange of information both from a home country and a host country perspective.”

In this connection, an advantage that should not be underestimated is rooted precisely in the fact that banks from Germany, Italy and Austria dominate the financial market in the CENTROPE region. This – according to an important conclusion reached at the SUERF seminar of June 2005 – would cause these countries’ regulatory frameworks and supervisory practices to be imported into the host countries.

Annex : The Bertelsmann Transformation Index to a Market Economy Democracy

The Bertelsmann Foundation’s Transformation Index compares 116 countries in terms of their strategies to effect a transformation toward a democratic market economy. Democratic and economic structures are rated on a point scale from one to five, with five being the best rating.

Criteria for Political Transformation

- Stateness
- Political participation
- Rule of law
- Stability of democratic institutions
- Political and social integration

Criteria for Economic Transformation

- Level of socioeconomic development
- Organization of the market and competition
- Currency and price stability
- Private property
- Welfare regime
- Economic performance
- Sustainability

Link to the ranking list with points assigned to the individual criteria:

<http://bti2003.bertelsmann-transformation-index.de/fileadmin/pdf/BTI-Tabelle.pdf>

Description of the individual criteria:

http://bti2003.bertelsmann-transformation-index.de/fileadmin/pdf/BERT_Criteria_Indicato_ENGL.pdf

Detailed country report for Slovakia:

<http://www.bertelsmann-transformation-index.de/174.0.html>

Detailed country report for the Czech Republic:

<http://www.bertelsmann-transformation-index.de/172.0.html>

Detailed country report for Hungary:

<http://www.bertelsmann-transformation-index.de/171.0.html?&0=&type=98>

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