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CEE: Fit for the next decade in the EU

Authors*
Marion Mühlberger
+49 69 910-31815
marion.muehlberger@db.com

Kevin Körner
+49 69 910-31718
kevin.koerner@db.com

Editor
Maria Laura Lanzeni

Deutsche Bank AG
Deutsche Bank Research
Frankfurt am Main
Germany
E-mail: marketing.dbr@db.com
Fax: +49 69 910-31877

www.dbresearch.com

DB Research Management
Ralf Hoffmann

Happy accession anniversary! EU accession was an important milestone in the economic catch-up story of the ten EU members in Central and Eastern Europe (CEE-10). Ten years and a textbook boom-bust cycle later, the CEE-10 have witnessed not only the benefits but also the drawbacks of such strong integration.

Growth model predicated on strong integration in European manufacturing value chains set to prevail. We expect that high and rising trade openness and strong integration in EU production chains coupled with increasingly sophisticated trade will continue to support the CEE-10 industry-based growth model. Vehicles, electrical machinery and telecom equipment should remain the most important industries.

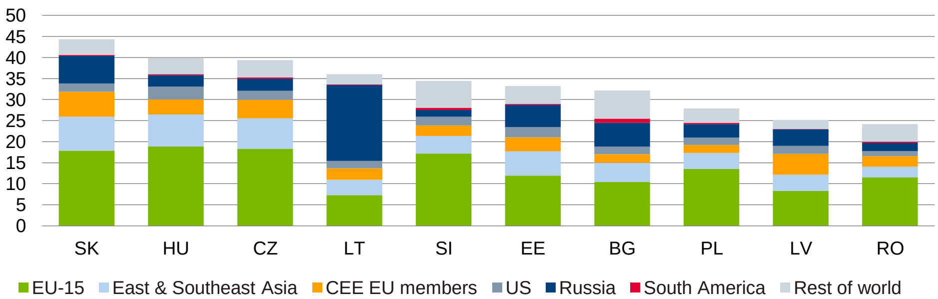
Strong financial integration bodes well for future growth. The EU is expected to remain an important source of FDI for the CEE-10 with total inflows estimated at roughly 3% of GDP per year. Moreover, Western European parent banks will likely remain committed to CEE with future credit growth increasingly being funded by domestic deposits. As financial intermediation levels are still much lower than in, for example, emerging Asia, the region offers further catch-up potential, albeit under less exuberant conditions than before the global financial crisis.

No “one-size-fits-all” pace for euro adoption. While Lithuania is on track to adopt the euro in January 2015, Poland, Hungary, the Czech Republic, Romania and Bulgaria are in no rush to join the eurozone.

Long-term growth hinges on further productivity increases. The CEE-10 seem well equipped for an additional push towards more knowledge-intensive production and innovation. The Baltics, Poland and Slovakia are expected to catch up most with Western European living standards within the next ten years.

CEE-10: Strongly integrated in global and European production chains

Foreign value-added content of gross exports by source country, 2009



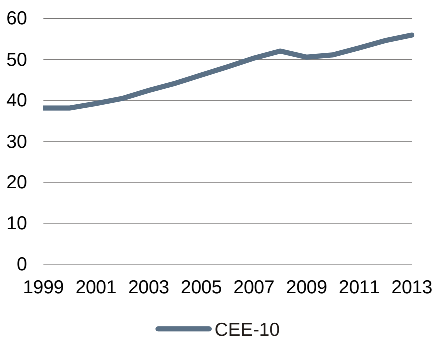
Sources: OECD, Deutsche Bank Research

* The authors would like to thank Jakov Milatovic for his research assistance.

Introduction

Income convergence progressing 1

Average GDP per capita (PPP), EU-12=100

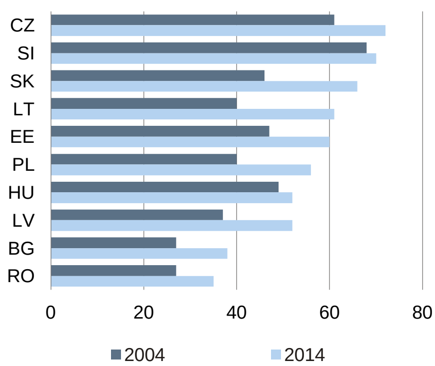


Sources: IMF, Deutsche Bank Research

On May 1, 2004, eight CEE countries[1] joined the European Union, followed by Bulgaria and Romania in January 2007. Strong trade, investment and monetary integration with the EU have been the cornerstone of the successful economic catch-up story of those economies (see charts 1 & 2) which started much earlier than actual accession. Ten years and a textbook boom-bust cycle later, the CEE-10 have witnessed not only the benefits but also the drawbacks of such strong trade and financial integration. Thus, it is now the right time to analyse whether the CEE-10 are well equipped to generate further economic catch-up in the future. Our first step is to examine how strongly the CEE-10 are integrated in European value chains and in which sectors they are most competitive. Second, we assess the pros and cons of strong financial integration in the EU via FDI inflows and Western parent bank lending. Third, we take a look at monetary integration in the eurozone. Finally, based on our main findings of the first three sections we present the likely long-term growth drivers and an estimate of the CEE-10's growth potential.

Convergence across the board 2

GDP per capita (PPP), EU-12=100



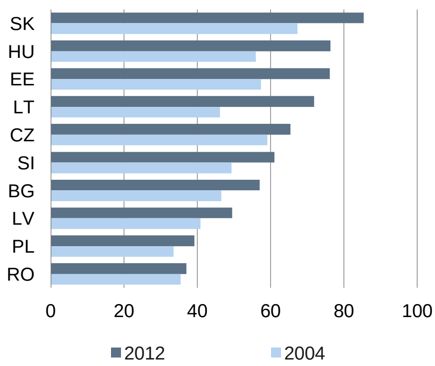
Sources: IMF, Deutsche Bank Research

Industrial growth model with strong integration in European value chains

Industry (i.e. manufacturing) accounts for around 30% of gross value added in almost all CEE-10 countries, compared to only around 20% in the EU-12 (see chart 3). As most of the CEE-10 are relatively small and open economies (see chart 4), the success of an industry-based growth model hinges on the competitiveness of their manufacturing output and/or the degree to which they are integrated in global production chains.

Increasing trade openess 4

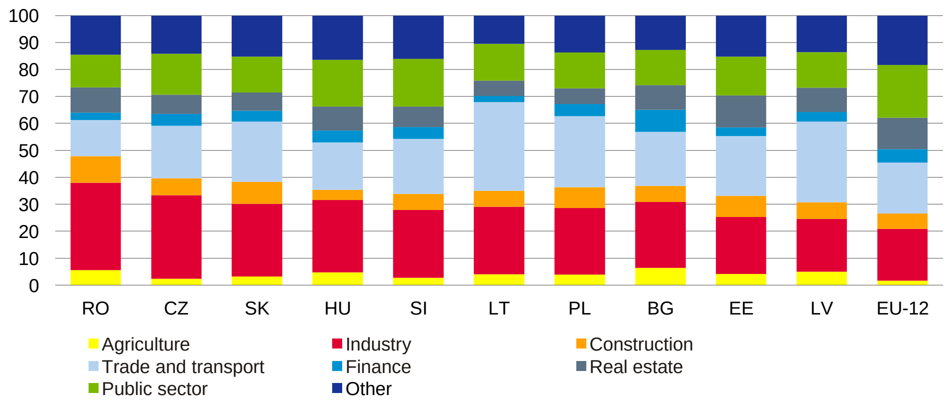
Exports and imports in % of GDP



Sources: Eurostat, Deutsche Bank Research

Significant share of industry in most CEE economies 3

% of total gross value added, 2012

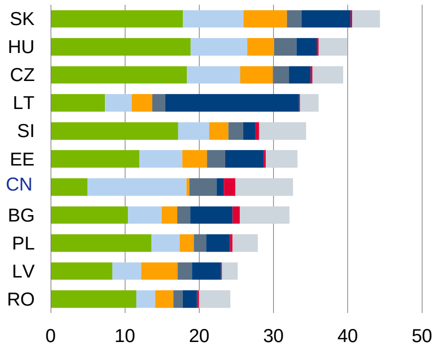


Sources: Eurostat, Deutsche Bank Research

[1] Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

Strongly integrated in European production chains 5

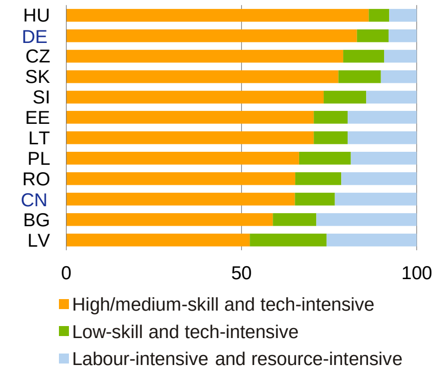
Foreign value added content of gross exports by source country, 2009



Sources: OECD, Deutsche Bank Research

Hungary has highest share of high- & medium-tech manufactured goods 6

% of manufactured goods



Sources: UNCTAD, Deutsche Bank Research

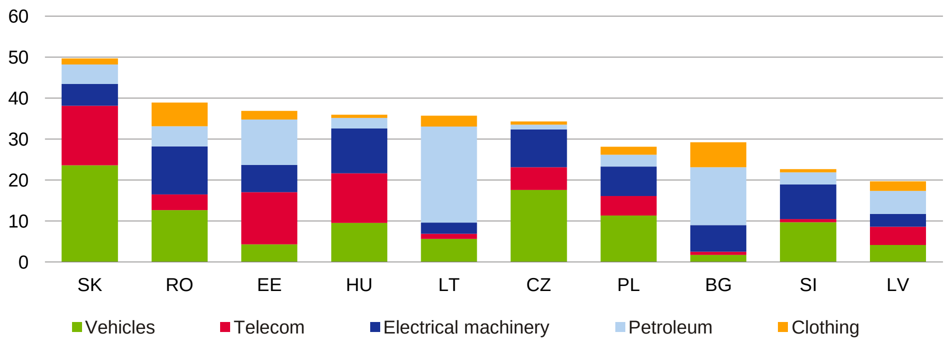
One way to visualise the integration in global production chains is to look at the foreign value-added content of gross exports. Chart 5 shows that a considerable share of CEE-10 exports passes through EU-affiliated cross-border production chains. Slovakia, Hungary and the Czech Republic stand out with 40% or more embedded foreign value in their gross exports, the bulk of it coming from the EU-15. Given significant energy-related exports in the Baltics and Bulgaria, their EU-15-share is much lower. While CEE exporters are in general still located further downstream in the production chains than their European partners, countries like Poland or the Czech Republic have already started setting up their own value chains within their region.[2] This shows that the countries are progressing up the global/European value chain.

To be sure, the degree of trade sophistication among the ten countries differs considerably. Over 80% of Hungary's manufactured goods fall into the category "high-and-medium-skilled and technology-intensive", which is even higher than the respective share for Germany. The Czech Republic and Slovakia also have a very similar trade structure to that of Germany. In contrast, more than 40% of manufactured goods in Latvia and Bulgaria are classified as "labour & resource-intensive" or "low-skill and tech-intensive", putting them below China in our ranking in chart 6.

So which industries have the CEE-10 countries specialised in, and do they already have a competitive advantage in high-tech industries?

Vehicles, telecom and petroleum are the single most important export goods 7

in % of total goods exports, 2012



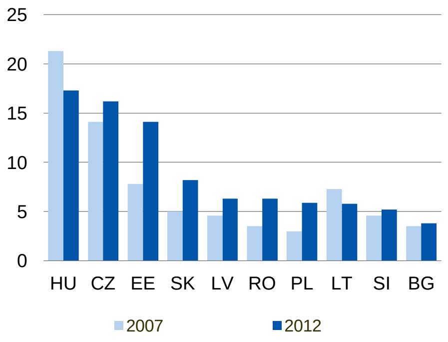
Sources: UNCTAD, Deutsche Bank Research

Chart 7 shows that vehicles, electrical machinery, telecom equipment and refined petroleum are the most important export goods and together account for 30-40% of total exports in almost all CEE-10 countries. However, the relative importance of these product groups varies across countries. The clustering of the automotive industry is clearly visible in the Slovak and Czech trade data, while Estonian exports are dominated by telecom products, and refined petroleum is the most important export item in Bulgaria and Lithuania.
The European competitiveness report confirms that there are several high-tech industries where the CEE-10 countries have a comparative advantage and are thus expected to hold or even expand their substantial world market shares. Table 9 shows that, except for the Baltics and Bulgaria, the competitive advantage mostly lies in the electrical equipment and motor vehicle industries. Apart from the foreign automotive companies (e.g. VW, Renault, PSA and Toyota) present in the CEE-10, some now foreign-owned traditional brands like Dacia and Skoda survived, with the latter selling almost one million cars last year.

[2] See also: Iossifov. Cross-border production chains and business cycle co-movement between Central and Eastern European countries and Euro Area member states. ECB working paper. 2014.

Increasing trade sophistication in most countries 8

High-tech exports, in % of total exports



Sources: Eurostat, Deutsche Bank Research

We expect that high and rising trade openness and strong integration in European and global production chains coupled with increasingly sophisticated trade (see chart 8) will continue to support the CEE-10 industry-based growth model in future as well. While electrical equipment and motor vehicles are expected to remain the most important industries, the strongest marginal growth is likely to come from IT & telecom, pharma & healthcare and energy & utilities.[3] An industry-centred growth model based on strong EU integration means, however, that positive and negative shocks stemming from the CEE-10's main trading partners – namely the EU members – will continue to strongly impact CEE economic growth.[4]

Comparative advantage lies in electrical equipment and motor vehicles industries 9

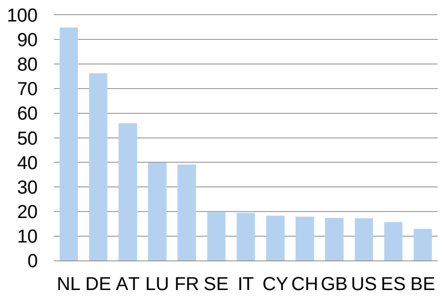
High-tech industries with comparative advantage based on relative export shares

	CZ	PL	HU	SK	RO	SI	BG	LT	EE	LV
Electrical equipment	x	x	x	x	x	x	x		x	
Motor vehicles	x	x	x	x	x	x				
Computers, electronic & optical	x		x	x						
Pharmaceuticals	x				x					x
Machinery	x									
Other transport		x								
Chemicals								x		

Sources: European competitiveness report 2013, Deutsche Bank Research

Netherlands & Germany as largest providers of FDI in CEE-10 10

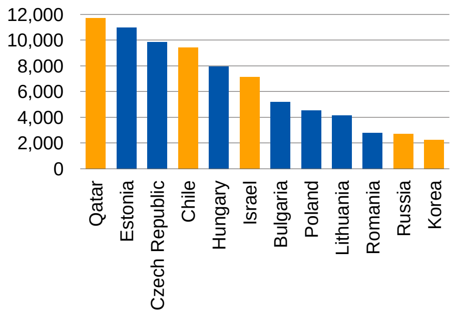
Inward FDI stock by source country, EUR bn, 2012



Sources: National central banks, Deutsche Bank Research

FDI high relative to population 11

Inward FDI stock per capita, EUR, 2012



Sources: UNCTAD, Deutsche Bank Research

Strong financial integration bodes well for future growth

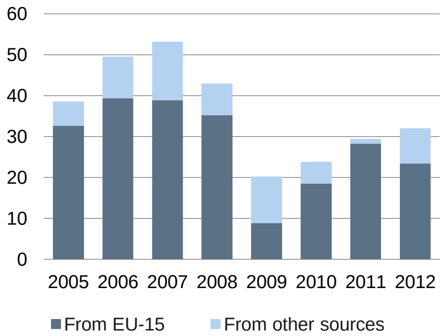
The catch-up process of the CEE-10 through integration into the European value chains has been accompanied by strong financial integration via foreign direct investment (FDI) and the dominance of Western European parent institutions in the banking sector.

A look at inward FDI stock and flow data shows that the EU has been by far the main provider of FDI to Eastern Europe, with the bloc contributing 77% of the total, and the Netherlands, Germany and Austria topping the list (see chart 10). The largest FDI recipients are Poland (36% of total CEE-10 FDI stock in 2012), the Czech Republic (19%) and Hungary (14%). The importance of financing through foreign direct investment and the attractiveness of the CEE region are illustrated by the high level of FDI per capita in the region. Estonia and the Czech Republic attracted around EUR 10,000 per inhabitant, exceeding the levels of several large emerging markets such as Russia, Brazil, Turkey and South Korea (chart 11). Moreover, even though FDI inflows more than halved in 2009 when Europe and the rest of the world dived into the global financial crisis, they remained positive in net terms while other capital flows (e.g. cross-border bank lending) sank (chart 12). FDI also started to recover quickly, even though inflows remain below pre-crisis levels. Empirical research suggests (with data covering 1996 to 2007) that a USD 100 increase in FDI per capita would spur GDP growth in the CEE-10 by around 0.2 to 0.3 of a percentage point.[5] The current trend in FDI flows suggests that they will remain an important driver of growth in the upcoming years. We expect the CEE-10 to continue to attract total

3 Roland Berger. CEE in 2020 – Trends and perspectives for the next decade. November 2010.
4 Iossifov. Cross-border production chains and business cycle co-movement between Central and Eastern European countries and Euro Area member states. ECB working paper. 2014.
5 Rapacki and Próchniak (2009). The EU Enlargement and Economic Growth In the CEE New Member Countries, p. 15.

EU-15 as the main source of FDI to CEE 12

Inward FDI flows in CEE-10 (net), EUR bn



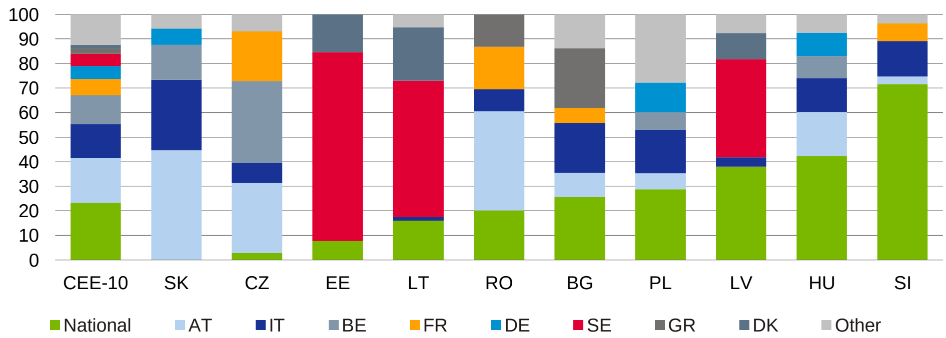
Sources: Eurostat, Deutsche Bank Research

FDI inflows of roughly 3% of GDP per year, which is roughly the level seen over the last three years. Given their geographical proximity and the strong integration of CEE countries in European production chains, it can be expected that EU countries will remain the main source of FDI.

The other major channel of financial integration is, of course, the large presence of Western European banks in the CEE-10. Foreign banks now own almost 80% of the CEE banking sector in terms of assets, while the share varies between individual countries (see chart 13). Foreign ownership is almost entirely concentrated on non-CEE EU parent banks. Austria, Italy and Belgium have the strongest presence in the region with a total share of 44%. In the Baltic region, the banking sector is mainly owned by Nordic parent banks, while in South Eastern Europe, Greece is also an important player next to Austria and Italy. The credit supply via EU parent banks is even more important considering the dominant role of bank lending for private-sector financing in almost all countries of the region.

Austria, Italy and Belgium most prominent in CEE banking sector 13

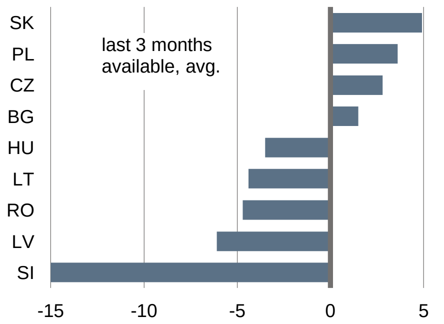
Foreign parent banks, % of total assets of ten largest banks



Sources: LSE, Deutsche Bank Research

Credit growth strongest in Slovakia and Poland 14

Real credit to the private sector, % yoy



Sources: IMF, Deutsche Bank Research

Given the scale of the credit boom-and-bust cycle in CEE, it has been debated whether the strong presence of Western European banks has been positive. Compared with non-parent foreign banks, however, it seems it has. Obviously, Western parent banks did not prevent a decline in credit extension in CEE, but they generally remained committed to the region (even though there has been some re-shuffling of ownership) and the Vienna initiative coordination mechanism helped prevent a "rush to the exit" by these parent banks.[6] In many CEE economies, credit growth is picking up again, with Slovakia and Poland seeing the strongest expansion (see chart 14). And although financial intermediation levels have increased considerably over the last decade, there is still room for further catch-up, in particular compared to emerging Asia (see chart 15), albeit at a much more moderate (and healthy) pace than in the pre-crisis years and increasingly on the back of domestic deposits.

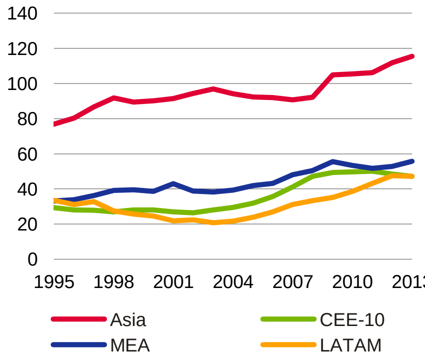
No "one-size-fits-all" strategy for euro adoption

Upon accession to the European Union in 2004 and 2007, the ten new Central and Eastern European member states implicitly also opted to join the European Monetary Union in the medium term, thus committing to adopt the euro as their currency at some point. Four out of ten of the new CEE members have joined

[6] See also Mühlberger et al. (2013). Central & Eastern Europe Credit Monitor. De Haas et al. (2013). Foreign Banks and the Vienna Initiative: Turning Sinners into Saints? IMF WP 12/117 and Hameter et al. (2012). Intra-Group Cross-Border Credit and Roll-Over Risks in CESEE: Evidence from Austrian Banks. OENB.

Still room for catch up in financial intermediation 15

Private sector credit in % of GDP



Sources: IFS, Deutsche Bank Research

Maastricht criteria to join the euro area 16

All EU countries that prepare themselves for joining the euro area have to fulfil five Maastricht criteria that serve as preconditions for the single currency:

— The 12-month average of CPI must be at most 1.5 percentage points above the average of the three lowest CPI values in the EU.

— The long-term interest rate must be at most 2 percentage points above the average of the three lowest CPI values in the EU.

— The countries have to join ERM II and keep their euro exchange rate within +/- 15% of a central rate, which is not allowed to be changed, for two years.

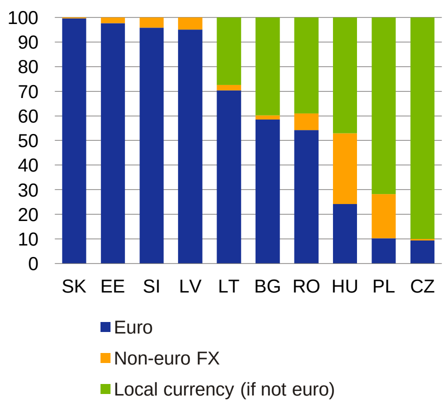
— The government debt to GDP ratio must be at most 60% (or declining towards 60%).

— The fiscal deficit must be at most 3% of GDP.

Source: European Commission

Euroisation of the banking sector 18

Loans to non-MFIs, % of total loans (Dec 2013)



Sources: ECB, Deutsche Bank Research

the euro area so far: Slovenia in 2007, Slovakia in 2009, Estonia in 2011 and Latvia in 2014. Lithuania is set to become the 19th member of the euro area in January 2015, if – as expected – all Maastricht criteria are fulfilled.

Amongst the other CEE members that have not yet adopted the euro, a certain degree of "euro fatigue" is to be observed. In particular, the eurozone crisis seems to have clouded the perspective of the final step of financial and monetary integration for many new EU member states. They have become more hesitant to give up their own currencies as a monetary instrument and hence lose flexibility in the face of shocks.

In fact, none of the remaining CEE-10 countries outside the euro area except Lithuania currently meets all the Maastricht criteria (see table 17). As the date for joining the ERM II is each EU member's individual decision, in practice it is up to each country to choose whether to go ahead (provided that all the other criteria are fulfilled) or to postpone euro adoption indefinitely (as currently practised by Sweden). Hungary, according to official statements, is not considering eurozone entry before 2020. Romania rescheduled the euro adoption target from previously 2015 to 2019 now. While the Czech government aims to comply with the Maastricht targets, it has not committed to a specific target date for euro adoption. Bulgaria previously met all convergence criteria but abstained from joining ERM II, thus also postponing euro adoption voluntarily. Poland originally planned to join the euro area in 2012 but then decided otherwise and indefinitely postponed the target date.

Who meets which Maastricht criteria for euro adoption? (2013 data) 17

	CPI inflation* (12M mov. avg., % yoy)	Fiscal balance (% GDP)	Government debt (% GDP)	ERM II	Long-term interest rate** (12M mov. avg. %)
Bulgaria	0.4	-1.9	19.4	No	3.47
Czech Republic	1.4	-2.7	46.1	No	2.11
Hungary	1.7	-2.4	77.8***	No	5.92
Lithuania	1.2	-2.7	39.5	28 June 2004	3.83
Poland	0.8	-4.4	57.8	No	4.03
Romania	3.2	-2.6	38.3	No	5.41

* 12-months average of yoy rates; reference value: 1.77% (max., Dec. 2013)
** 12-months average of 10 year government bond yields; reference value: 6.44% (max., Dec. 2013)
*** Declining

Sources: European Commission, Deutsche Bank Research

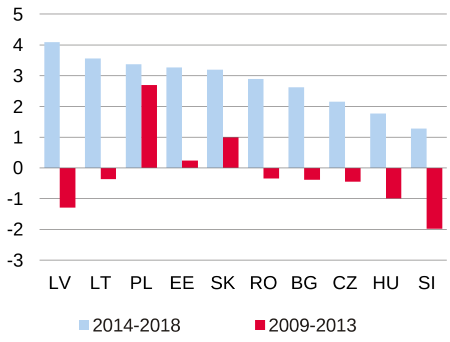
As a flexible exchange rate regime served Poland well during the financial crisis (combined with an IMF flexible credit line), its stance towards euro adoption has been affirmed. A pronounced (real) depreciation of the zloty against the euro has helped to support the economy by making its export sector more competitive (in addition to domestic factors). At the same time, a generally low level of euroisation of the banking sector (chart 18) mitigated risks stemming from higher repayment requirements on euro-denominated loans due to the weaker currency. Currency risk (one of the main arguments for euro adoption) generally does not seem to be a dominating issue in the Polish case, with anecdotal evidence showing that almost 50% of Polish companies do not hedge at all against currency risk, either because hedging costs outweigh the benefits or because there are too few transactions that would require hedging.[7]

In general, disadvantages/risks of having one's own currency when a banking system is strongly euroised could come to the fore in the ongoing withdrawal of global liquidity. In the medium term, the advantages of full monetary integration into the euro area − such as the abolition of FX volatility, the removal of transaction costs and availability of the European Central Bank as lender of last

[7] Rzeczpospolita. Homo Homini survey. February 18, 2014.

Baltics, Slovakia and Poland to grow fastest 19

Average real GDP, % yoy



Sources: IMF, Deutsche Bank Research

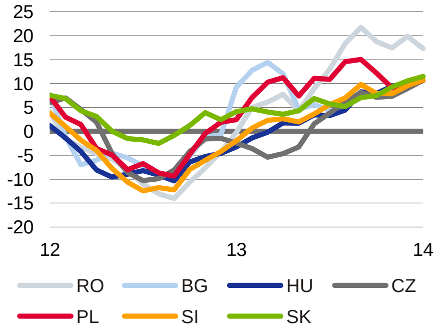
resort – should, for most CEE-10 countries, outweigh concerns about the disadvantages of losing monetary independence.

CEE short-term growth is driven by the eurozone recovery

With an estimated average growth rate of 2.5-3% yoy for 2014-2015 the short-term growth outlook for the CEE-10 is solid (see chart 19). Contrary to pre-crisis times, real GDP growth is now much more balanced. Exports have been boosted by the continued economic recovery of the eurozone (see chart 20). Although credit growth is still relatively weak, it is providing some GDP stimulus again via its impact on domestic consumption. Fiscal restraint is also vanishing gradually.[8] However, there are still considerable differences from country to country. The open and very flexible Baltic economies are set to grow 3-4% yoy annually. Slovakia, Poland and Romania should benefit from a mixture of strong export dynamics and a pick-up in domestic demand. Only Slovenia, which still suffers from ongoing restructuring in the banking sector, is likely to see growth rates of only around 1% yoy.

Strong export momentum 20

Goods exports, % yoy



Sources: IFS, Deutsche Bank Research

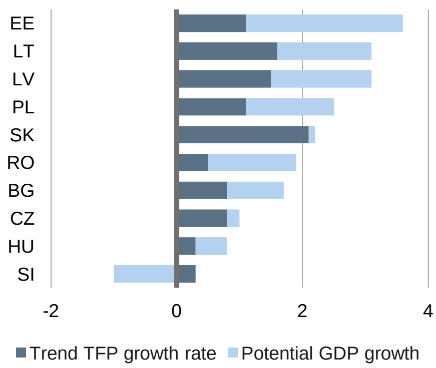
Long-term growth prospects hinge on further productivity gains

In order to identify possible long-term growth drivers, we first look at past growth drivers in the CEE-10 versus other emerging market regions over the last 17 years by breaking down real GDP growth on the basis of the Solow theoretical framework.[9] Our analysis shows that CEE growth has been driven mainly by an increase in productivity (as shown by total factor productivity in chart 21).[10]

In contrast to other emerging market regions, employment and human capital growth had almost no effect on GDP growth, which can be explained by CEE's unfavourable demographics and already high education standards. Given relatively low savings and investment ratios, physical capital growth contributed more to growth in CEE than in Asia.

TFP to remain an important source of growth 22

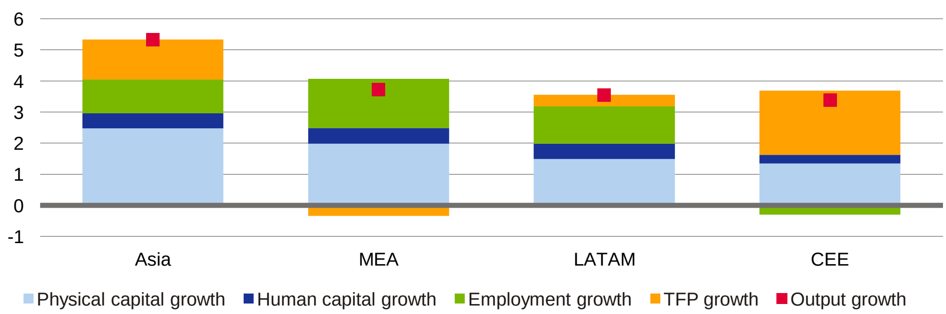
Potential GDP, % yoy



Sources: European Commission, Deutsche Bank Research

CEE: Total factor productivity as main growth driver 21

Average annual output growth, 1994-2011, %



Sources: Penn World Tables, Deutsche Bank Research

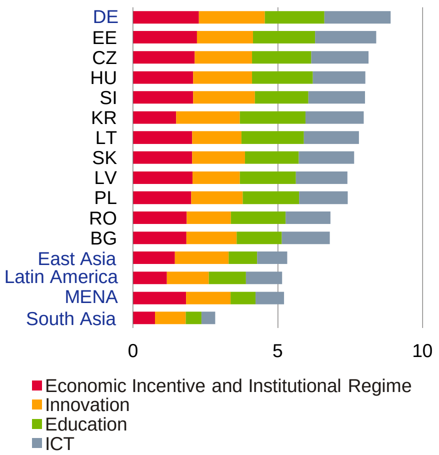
8 See also Robert Burgess, Gautam Kalani, Lionel Melin. Central Europe: A Good EM Story. 2014. Deutsche Bank Research.

9 For methodology see: Senhadji. Sources of Economic growth: An Extensive Growth Accounting Exercise. IMF Working Paper. 1999.

10 See also EBRD Transition Report 2014.

CEE on the way to the Knowledge Economy 23

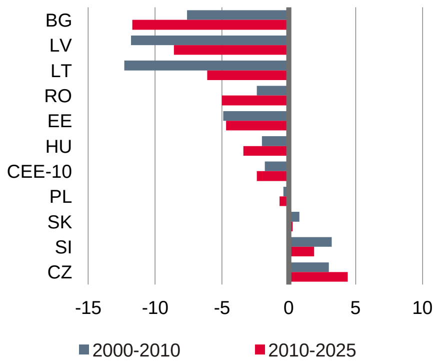
Knowledge Economy Index 2012



Sources: World Bank, Deutsche Bank Research

Shrinking populations in most CEE countries 24

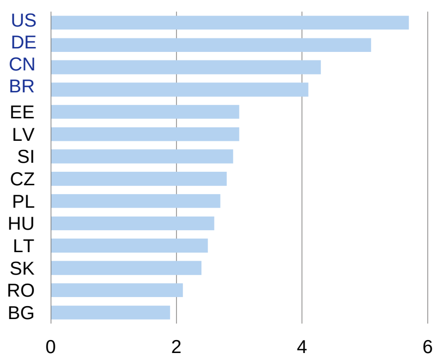
% change



Sources: UN, Deutsche Bank Research

CEE have low ablility to retain talent 27

Country capacity to retain talent index, 7=best, 1=worst



Sources: WEF, Deutsche Bank Research

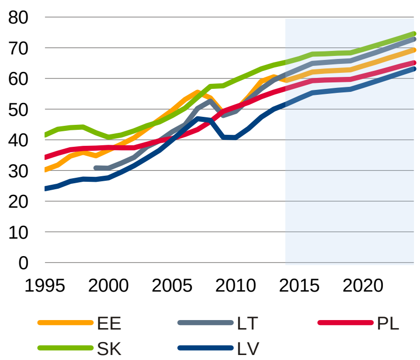
Looking ahead, chances for a continuing increase in (total factor) productivity appear favourable. For example, European Commission estimates for potential growth show that total factor productivity is set to remain an important source of growth for several CEE countries, especially Slovakia and the Czech Republic (chart 22). Given that the manufacturing sector is seen as the major source of technological progress in the economic literature,[11] the CEE-10's strong industrial base should bode well for future productivity increases. Sure, the low-hanging fruit of productivity growth (e.g. upgrading of production facilities, harmonisation of the acquis communautaire) has already been picked.[12] But in our view, the CEE-10 are well equipped for an additional push towards more knowledge-intensive production and innovation. For instance, according to the European Innovation Scoreboard, there is continuous progress in innovation in CEE with Estonia and Slovenia ranking highest. Moreover, the CEE-10 score better than any other emerging market region in the World Bank's Knowledge Economy Index (see chart 23). Thus, all these factors should contribute towards an acceleration of total factor productivity over the longer term.

Physical capital is set to remain the second growth driver. True, external rebalancing of the economies has kept domestic investment ratios low. Nevertheless, we expect the virtuous cycle of increasing productivity and catch-up in the physical capital stock to continue. As the CEE-10 capital stock is still considerably lower than in advanced economies and the countries are moving closer to the technological frontier, there is still scope for convergence. In particular, we expect the CEE-10 to continue to attract substantial foreign direct investment given geographic proximity, still relatively low labour costs and the strong integration in European production chains discussed above. Moreover, membership in the EU remains an important "institutional selling point" for the CEE-10, helping them to attract domestic and foreign investment.

Human capital is likely to remain a constraint on growth as negative demographic developments are amplified by the continued brain drain. According to UN projections the population is set to grow only slowly in Slovakia, Slovenia and the Czech Republic, while it will decline in all the other countries (see chart 24). In addition to low birth rates, it is a challenge for many CEE countries to retain talent at home, which is particularly true for Romania and Bulgaria, which rank pretty low in the WEF brain drain index (see chart 27).

Fast convergers 25

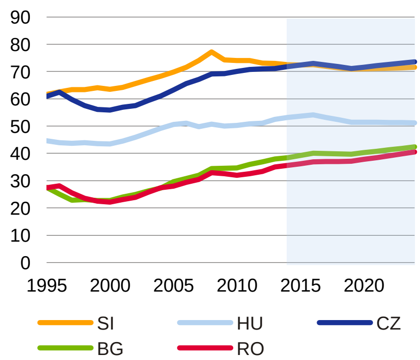
Per-capita income in PPP (EU-12=100)



Sources: IMF, Deutsche Bank Research

Slow convergers 26

Per-capita income in PPP (EU-12=100)



Sources: IMF, Deutsche Bank Research

[11] European Competitiveness Report 2013, page 114.
[12] See also Gunter Deuber, Barbara Böttcher. As time goes by …. Mixed showing after five years of EU eastern enlargement. 2009. Deutsche Bank Research.

To sum up, we expect the CEE-10 to continue their economic catch-up drive, albeit at differing speeds. Using potential growth estimates from the IMF we calculated the CEE-10's individual convergence paths over the next ten years. Our analysis shows that income convergence will not progress meaningfully in Hungary and Slovenia. While the Czech Republic, Romania and Bulgaria will experience moderate convergence, the Baltics, Poland and Slovakia are expected to catch up most strongly with Western European living standards within the next decade (see charts 25 & 26).

Kevin Körner (+49 69 910-31718, kevin.koerner@db.com)
Marion Mühlberger (+49 69 910-31815, marion.muehlberger@db.com)

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