

McKinsey Global Institute



December 2013

A new dawn: Reigniting growth in Central and Eastern Europe



The McKinsey Global Institute

The McKinsey Global Institute (MGI), the business and economics research arm of McKinsey & Company, was established in 1990 to develop a deeper understanding of the evolving global economy. MGI's mission is to provide leaders in the commercial, public, and social sectors with the facts and insights on which to base management and policy decisions.

MGI research combines the disciplines of economics and management, employing the analytical tools of economics with the insights of business leaders. Its "micro-to-macro" methodology examines microeconomic industry trends to better understand the broad macroeconomic forces affecting business strategy and public policy.

MGI's in-depth reports have covered more than 20 countries and 30 industries. Current research focuses on six themes: productivity and growth; the evolution of global financial markets; the economic impact of technology and innovation; natural resources; the future of work; and urbanisation. Recent reports have assessed job creation, resource productivity, cities of the future, and the impact of the Internet.

The partners of McKinsey fund MGI's research; it is not commissioned by any business, government, or other institution.

For further information about MGI and to download reports, please visit www.mckinsey.com/mgi.

McKinsey in Central and Eastern Europe

McKinsey & Company opened its first offices in Central and Eastern Europe in the early 1990s, soon after the momentous democratic changes in the region. McKinsey played an active role in the region's economic rebirth, working with governments, nonprofits, and cultural institutions, as well as leading business organisations. With offices in Warsaw, Prague, Budapest, Bucharest, and Zagreb, we serve clients across a wide range of industries, including banking, telecom, oil and gas, and retail.

McKinsey Global Institute

December 2013

A new dawn: Reigniting growth in Central and Eastern Europe

Eric Labaye
Pål Erik Sjøtil
Wojtek Bogdan
Jurica Novak
Jan Mischke
Mladen Fruk
Oana Ionuțiu

Preface

Central and Eastern Europe became one of the fastest-growing regions of the world from the 1990s up to the global financial crisis in 2008. Emerging from decades of state economic control, the eight economies we consider here (Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia) privatised industries, introduced competition, and tapped the talents of their people to raise GDP and living standards. Since the crisis the CEE region—like other parts of the world—has struggled to reignite growth.

This is the McKinsey Global Institute's first major report on Central and Eastern Europe and has been prepared in partnership with McKinsey & Company's Eastern Europe offices. In this report we focus on how the CEE economies can adopt new approaches that can further develop the region's many assets and restore rapid growth.

This project was led by Eric Labaye, a McKinsey director and chairman of the McKinsey Global Institute, and by McKinsey director Pål Erik Sjøtøl and McKinsey principals Wojtek Bogdan and Jurica Novak. MGI Senior Fellow Jan Mischke supervised the research. Mladen Fruk and Oana Ionuțiu managed the project team, which consisted of Cyril Aschenbrenner, Michal Kaniewski, Margareta Klinčić, Dušan Komar, Jiří Mil, and Maciej Nowakowski.

This report would not have been possible without the prior research and thoughtful input of the McKinsey Eastern European office directors and principals. We would particularly like to thank Cornelius Walter, manager of the Budapest office; Daniel Boniecki, manager of the Warsaw office; and Tomáš Víšek, manager of the Prague office. We are grateful for the input and support of Jonathan Ablett, Bogdan Buleandră, Jaroslaw Bronowicki, Michal Guminski, Krzysztof Kwiatkowski, Aneta Legenza, Lucie Markova, Derek Neilson, and Luiza Orłowska.

We are extremely grateful to the McKinsey experts who have shared their knowledge in this work: Miklos Dietz, a director and banking practice leader in Budapest; Matthias Daub, a principal in Berlin, who provided expertise on outsourcing and offshoring; and Oleg Prokhorenko, an associate principal in Kiev, who advised us on agricultural issues.

The team would like to thank Geoffrey Lewis for editorial support and MGI's operations and communications team, including Julie Philpot, Marisa Carder, Rebeca Robboy, and Gabriela Ramirez; and Joanna Iszkowska in Warsaw, who provided additional communications assistance.

We are also grateful for the guidance we received from experts in academia, industry and government, who contributed their insights. Our particular thanks go to Martin Baily, the Bernard L. Schwartz Chair in Economic Policy Development at the Brookings Institution.

Richard Dobbs

Director, McKinsey Global Institute
London

James Manyika

Director, McKinsey Global Institute
San Francisco

Jonathan Woetzel

Director, McKinsey Global Institute
Shanghai

December 2013

Contents

Executive summary	1
1. A remarkable journey (1990–2012)	13
2. The new growth model	27
3. Building the foundation for the new growth model	69
Bibliography	81



Executive summary

From the early 1990s to the onset of the global financial crisis in 2008, the economies of Central and Eastern Europe (CEE) established a record of growth and economic progress that few regions have matched. Emerging from decades of socialism, the eight nations that we consider—Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia—became standout performers in the global economy.¹ They unleashed the inherent strengths of their economies by privatising state-owned industries and implementing labour reforms. This attracted a flood of capital and foreign direct investment (FDI) that helped drive productivity improvements and rising per capita GDP.

While these economies, like the United States and Western Europe, continue to struggle to regain momentum in the face of weak demand since the end of the global recession, we find that they have the potential to move back to a faster growth trajectory in the coming years. Doing so will depend on a series of reforms and initiatives to make the most of the region's proven advantages and build new capabilities.

In this report we propose a new growth model for the CEE economies that would favour investment-led growth over consumption and increase the region's ability to finance its future growth and attract foreign investment. This would be accomplished by continuing to expand exports, raising the productivity of lagging domestic sectors, and improving the self-funding capabilities of these economies. The new growth plan would require critical “enablers” such as investments in infrastructure, education, and innovation as well as regulatory and institutional reforms. Together, these efforts could put the CEE economies back on a path to faster growth and rising per capita GDP and help counter the looming effects of ageing populations.

Throughout our research, we consider the eight economies on a regional basis. This approach helps demonstrate the combined strength of the CEE economies and emphasises common assets, as well as common challenges. It also suggests the potential for greater regional cooperation in economic development. However, we also acknowledge the diversity of the region (see Box E1, “Building a growth model for eight countries that are alike—and different”).

1 This report covers the Eastern European members of the European Union, without the Baltic states.

Box E1. Building a growth model for eight countries that are alike—and different

The eight economies of Central and Eastern Europe vary greatly in terms of land mass, population, urbanisation, and stage of economic development. Yet they have many things in common, including geography, culture, history—and their past growth model.

Across the CEE nations, income varies, ranging from \$7,237 (€5,200) in GDP per capita in 2011 in Bulgaria, the least economically developed country, to \$24,494 (€17,600) per capita in Slovenia, about 60 percent of the EU-15 average.¹ Average wages in Romania are about half of what they are in the Czech Republic. Nearly 50 percent more Bulgarians than Romanians live in urban areas. Since the crisis, GDP growth in most CEE economies has been depressed. But Poland, which avoided recession, has racked up a healthy 3.5 percent per year growth rate, as a result of factors such as a lower exposure to weak foreign demand and its deep connection to the comparatively robust German economy.

When it comes to the growth model, we find the similarities to be more compelling than the differences. All eight CEE nations have made a transition from state-controlled economies to open, free-market economies since 1990. Five CEE countries (the Czech Republic, Hungary, Poland, Slovakia, and Slovenia) put in place the reforms that qualified them for membership in the European Union in 2004. Bulgaria and Romania followed in 2007 and Croatia in 2013. Two CEE countries, Slovenia and Slovakia, have adopted the euro. All of the CEE economies experienced a boom before the global economic crisis, with GDP growth in the region averaging more than 5 percent a year from 2004 to 2008 and rapid progress in narrowing income and productivity gaps to Western European standards. And, in retrospect, it is clear that much of this growth was fuelled by consumption, made possible by borrowing and capital inflows from the EU-15.

The new growth model we propose is intended to work across the region and restore GDP expansion to pre-crisis levels. The model will need to be adapted to the conditions in each nation; not all elements will apply everywhere. At the same time, private and public-sector players may need to work across borders to promote the region globally and generate region-wide benefits.

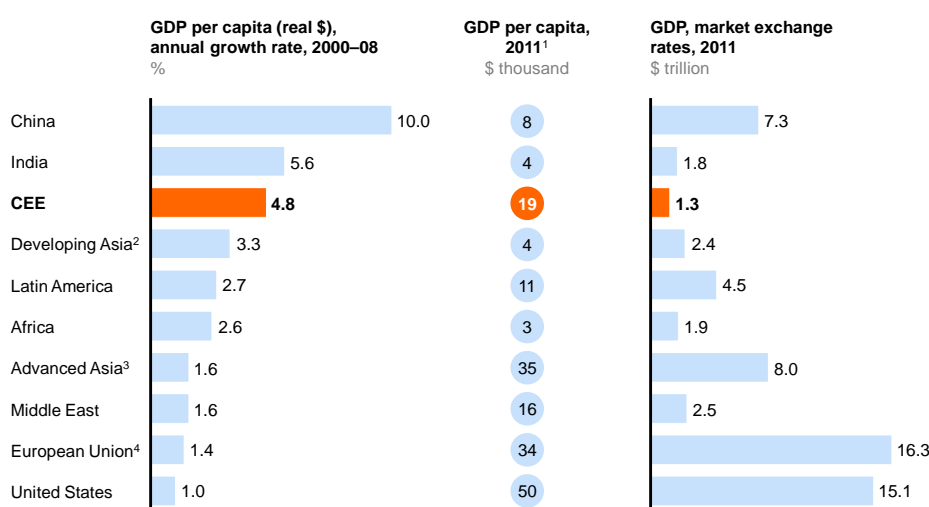
1 Eurostat.

A REMARKABLE JOURNEY (1990–2012)

Prior to the crisis, CEE economies were among the fastest growing in the world. From 2000 to 2008, GDP grew by 4.6 annually and per capita GDP rose by 4.8 percent annually, reaching \$19,000 in purchasing power parity terms (Exhibit E1). During this period, per capita GDP in the CEE economies grew four times as fast as in Western Europe and average per capita GDP across the CEE countries rose from 38 percent of the EU-15 average in 1995 to 54 percent in 2011. Labour productivity, based on value added per worker, also rose, from 37 percent of the EU-15 average in 1995 to approximately 60 percent in 2011.

Exhibit E1

Central and Eastern Europe was one of the fastest-growing regions in the world before 2008



1 In purchasing power parity terms.

2 Not including China and India.

3 Japan, Hong Kong, South Korea, Singapore, and Taiwan.

4 Not including CEE.

SOURCE: International Monetary Fund; McKinsey Global Institute analysis

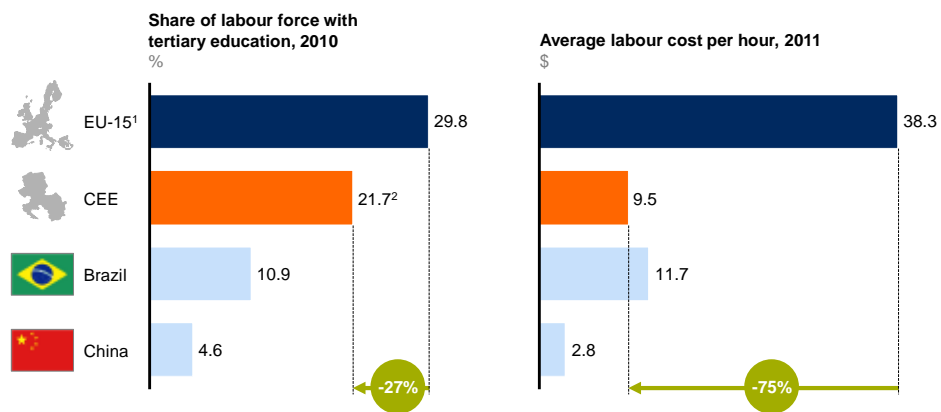
We find that the underlying strengths that made rapid growth possible in the pre-crisis period remain intact. The core strengths of the CEE region, an area with 100 million people and \$1.3 trillion (€0.9 trillion) in GDP in nominal terms, are the following:

- Highly educated yet affordable workforce.** About 22 percent of the entire labour force has tertiary education and 29 percent of workers aged 25 to 34 have college degrees, matching the Western European rate for all workers. Hourly wages average 75 percent less than in the EU-15 and are as much as 90 percent lower in Bulgaria and Romania (Exhibit E2).
- Stable macroeconomic environment.** The CEE economies have relatively strong balance sheets (public debt in most nations has not exceeded 60 percent of GDP since 2004), and exchange rates have been relatively stable at plus or minus 15 percent vs. the euro.

- Favourable business environment.** While there is room for improvement, the region now ranks just behind the Organisation for Economic Co-operation and Development (OECD) high-income economies for ease of doing business.² Statutory corporate tax rates average 18 percent, compared with an average of 26 percent in the EU-15, 22 percent in Asia, 28 percent in Latin America, and 29 percent in Africa. On metrics of corruption, the CEE economies lag behind the EU-15 nations but are far ahead of China, India, Brazil, and Russia.³
- Strategic location.** CEE nations are, at most, 1,500 kilometres from Germany and the other Western European economies. To the east lie Russia and other Commonwealth of Independent States (CIS) nations, as well as Turkey and the Middle East. As global economic growth moves east and south, Central and Eastern Europe could be well positioned to participate.

Exhibit E2

The CEE region offers an educated workforce and substantially lower labour costs than the EU-15



1 Excluding Luxembourg.

2 Excluding Croatia.

SOURCE: Organisation for Economic Co-operation and Development; United Nations; Eurostat; Economist Intelligence Unit; World Bank; McKinsey Global Institute analysis

- Doing business 2014*, World Bank and International Finance Corporation, 2013. This analysis groups Eastern Europe and Central Asia, which include the eight economies we consider here, the Commonwealth of Independent States (CIS) countries, the Western Balkans, and the Baltic states.
- The World Bank ranks nations for corruption on a 0 to 100 scale, with 100 being least corrupt. The average for CEE countries was 50. This compares with EU-15: 72; Brazil: 43; China: 39; India: 36; and Russia: 28. See *Corruption perceptions index 2012*, Transparency International, 2012.

CEE economies attracted foreign investment, which drove growth and productivity

These core strengths attracted a flood of investment in the CEE economies in the 1990s and 2000s. With deregulation, Western European banks moved aggressively into the region and helped consolidate the financial sector. From 2004 to 2008, one-fifth of the \$220 billion (€168 billion) of net FDI inflows to CEE nations went into the financial sector. Today, foreign interests hold 85 percent of the equity in the top ten banks in the region. Western European automakers built factories and purchased local suppliers (for example, Volkswagen's purchase of Škoda, Fiat's purchase of FSM, Renault's purchase of Dacia). Manufacturers from the United States and Asia also established plants in the region for the Western European market.

The flow of foreign direct investment modernised outdated factories and introduced more efficient methods that helped raise productivity. For example, total vehicle production more than doubled, from 1.5 million units per year in 2000 to 3.4 million in 2011, while automotive manufacturing employment rose by 60 percent, to 535,000 in 2010.

During the past decade, the CEE economies also developed a globally competitive outsourcing and offshoring (O&O) industry. With a ready supply of high-skill, low-cost workers who possess appropriate language skills, Poland and other CEE nations have attracted companies from Western Europe and the United States, such as UniCredit and Hewlett-Packard, which set up back-office and support operations. The region now employs nearly 300,000 people in O&O work, and the industry is growing at twice the rate of India's O&O sector.

The crisis exposed weaknesses

The crisis, however, exposed significant weaknesses in the CEE growth formula. High GDP growth across the CEE region was heavily dependent on consumption, which averaged 80 percent of GDP between 2005 and 2008—far above levels in other fast-growing economies (consumption accounted for 50 percent of GDP in China and 68 percent in India in 2008). Consumers relied on credit to fuel consumption, with the stock of loans in the CEE region growing 26 percent annually, while the stock of savings in the banking system grew by 13 percent annually. Real estate bubbles appeared in Bulgaria, Romania, and Slovakia; in Bucharest, residential real estate prices rose by three and a half times from 2000 to 2007.

When the crisis hit, foreign direct investment flows—80 percent of which had originated in Western Europe—virtually collapsed. Demand in Western Europe, which takes nearly 60 percent of CEE exports, also fell sharply and remains weak. Now, ageing threatens to shrink the labour force in the coming decade, creating yet another potential barrier to growth. Under current trends, we estimate that ageing could reduce per capita GDP by 0.7 percent a year from 2010 to 2020 and by 0.3 percent a year from 2020 to 2030.

A NEW GROWTH MODEL

The CEE economies have a choice. In a business-as-usual scenario, capital investment rates return to pre-crisis rates, total factor productivity growth reverts to its long-term average, and the effects of an ageing workforce are fully felt. This scenario leads to a meagre 2.8 percent annual growth rate for CEE economies through 2025. Restoring the 4.6 percent annual GDP growth that the CEE economies averaged from 2000 to 2008, would involve raising average annual investment in capital stock to regional benchmark levels, boosting labour participation rates to EU-15 levels, and accelerating total factor productivity growth through continuing reforms (Exhibit E3).

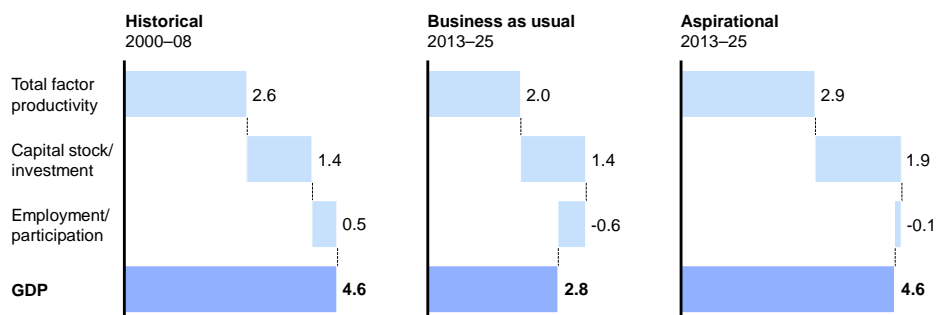
To reach the 2025 aspiration, we identify three thrusts and a series of enablers. The thrusts would expand exports in specific sectors to balance trade (as has been achieved recently), raise productivity in lagging sectors, and ensure domestic financing to fund growth while attracting renewed FDI. Underpinning these strategies would be enablers such as improved infrastructure, urbanisation, regulatory and institutional reforms, and better education and training.

Exhibit E3

In an “aspirational” scenario, CEE economies can return to pre-crisis GDP growth

Growth rates

%



NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Growth Model; McKinsey Global Institute analysis

Expanding exports and raising export value added

We identify three major opportunities for CEE nations to raise both the volume and value of exports: moving into more knowledge-intensive manufacturing functions, taking the O&O industry to the next level, and becoming a regional centre for agribusiness and food processing.

- Expanding knowledge-intensive manufacturing.** CEE economies have built strong momentum in knowledge-intensive manufacturing. The trade balance in knowledge-intensive goods moved from a deficit of 2.1 percent of GDP in 2007 to a surplus of about 2.0 percent of GDP in 2011. Industry clusters in automotive, aerospace, and other industries provide a critical foundation for further growth. However, to hold on to their positions and compete with emerging Asian economies that are moving aggressively up the manufacturing value chain, CEE economies will need to attract higher-value activities to their plants, contribute more innovations, raise investments in R&D, and take action to ensure a supply of workers with needed skills.

- **Taking outsourcing and offshoring to the next level.** O&O is already a large and fast-growing industry in Poland, and there are opportunities to further build up centres in Romania, Bulgaria, and other CEE locations. To capture more high-value-added O&O work will require targeted investments in education and development, as well as engaging in international marketing efforts and sharing best practices in the industry. The region's O&O players have the potential to become coordinators of global outsourcing activities.
- **Encouraging investment in agriculture and food processing.** CEE nations are geographically well placed to become strong pan-European competitors in food processing and make the region a pan-European food hub. Labour costs in CEE nations are about a quarter of those in Western Europe, and we estimate that for almost all types of food, savings in labour, materials, and other costs outweigh higher transportation costs. CEE countries could consider policies to encourage domestic and international investors to invest in and consolidate CEE farmland and provide the capital for modern equipment and techniques. Governments can reform land titling procedures to make investing easier, support farmer training, and spread modern techniques.

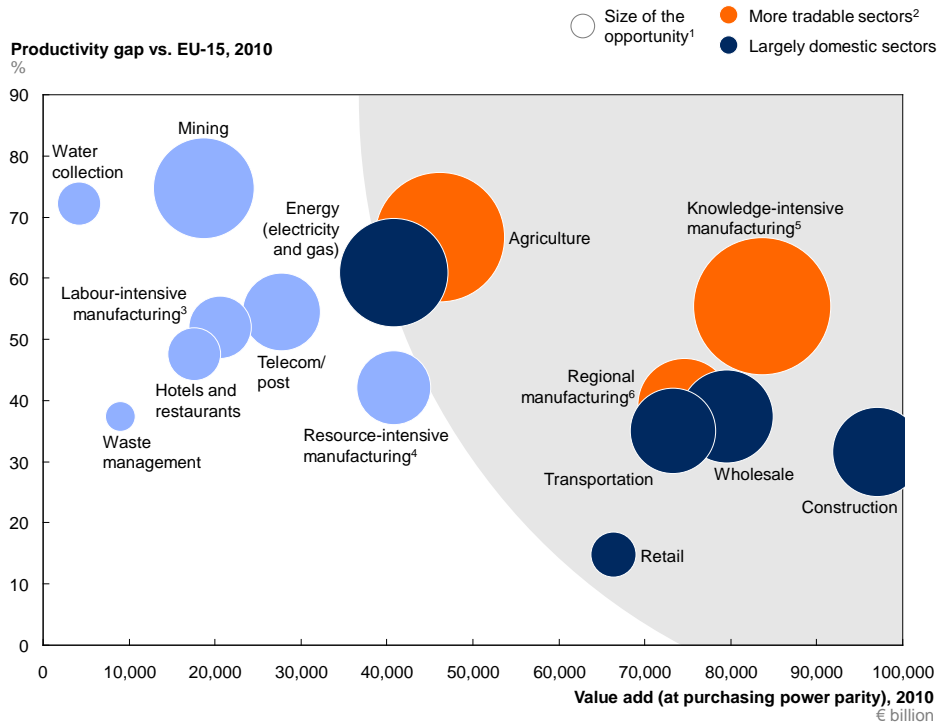
Raising growth, productivity, and investment in lagging sectors

To close the productivity gap with Western Europe and help accelerate GDP growth, the CEE economies can address gaps in four major domestic sectors: construction, transportation, retail, and “network” industries such as railway, postal, electric, and telecom systems (Exhibit E4).

- **Construction.** Overall, construction sector productivity across the CEE region is 31 percent lower than in the EU-15 economies. The lagging productivity is due to many factors, ranging from a lack of modern tools, skills, and materials to cumbersome regulation. There is also a high degree of informality. By adopting modern techniques and investing in better equipment, the CEE construction industry could reduce direct labour and indirect costs (through schedule compression).
- **Transportation.** Road freight productivity is close to 40 percent below EU-15 levels, reflecting both the relatively poor condition of CEE roads and the state of the CEE trucking industry, which is highly fragmented and has not taken full advantage of modern IT tools for load building, route optimisation, and other functions.
- **Retail.** The CEE retail sector has been largely modernised: modern-format stores have been introduced, and there are relatively few restrictions on hours of operation. However, productivity is still 15 percent below that of the EU-15, which can be addressed by further raising the proportion of modern-format stores and making additional investments in lean operations.
- **Network industries.** Rail networks, postal services, electric power, and telecom systems were once government monopolies across the CEE region. To varying degrees, these industries have been deregulated and, in some cases, privatised (virtually all mobile phone service is in private hands, for example). There are further productivity gains to be captured across CEE economies by accelerating reforms in economies that have made less progress in network services.

Exhibit E4

The largest productivity opportunities are in some manufacturing sectors, agriculture, construction, transportation, energy, retail, and wholesale



1 Calculated as multiple of size of the gap and value add.

2 Agriculture and regional processing are traded within short distances; in this report, we group them as exports due to the opportunities we discuss.

3 Textiles, apparel, leather, furniture, jewellery, toys, and other.

4 Wood products, refined petroleum, coke, nuclear, pulp and paper, and mineral-based products.

5 Chemicals; motor vehicles, trailers, and parts; transport equipment; electrical machinery; computers and office machinery; semiconductors and electronics; and medical, precision, and optical.

6 Rubber and plastics; fabricated metal products; and food and beverage.

NOTE: Excludes Bulgaria and Croatia.

SOURCE: Eurostat; McKinsey Global Institute analysis

Attracting renewed FDI inflows and raising domestic savings

Foreign direct investment in CEE economies fell dramatically after the financial crisis and has not returned to pre-crisis levels. Around the world, and particularly in Europe, cross-border investing has been slow since the crisis, but CEE economies can take steps to restart FDI flows.⁴ In addition to further improvements in the business environment, such as speeding administrative and regulatory processes, the CEE nations can expand their marketing efforts by establishing more export promotion offices around the world.

As the drop in FDI has shown, the CEE region is vulnerable to external forces that affect investment flows because of insufficient domestic savings. Since at least 1995, overall savings have failed to cover investment; this has made the CEE economies dependent on foreign capital. Once aggregate demand picks up and incomes are rising again, the CEE nations can take steps to create a greater pool of domestic savings to fund investment and growth. They can raise demand for savings and financial products by reforming pension systems to encourage fully funded retirement savings (vs. the current pay-as-you-go systems, under which active workers fund pensions without any buildup of savings). They can also

4 For more on cross-border investment flows, see *Financial globalisation: Retreat or reset?* McKinsey Global Institute, March 2013.

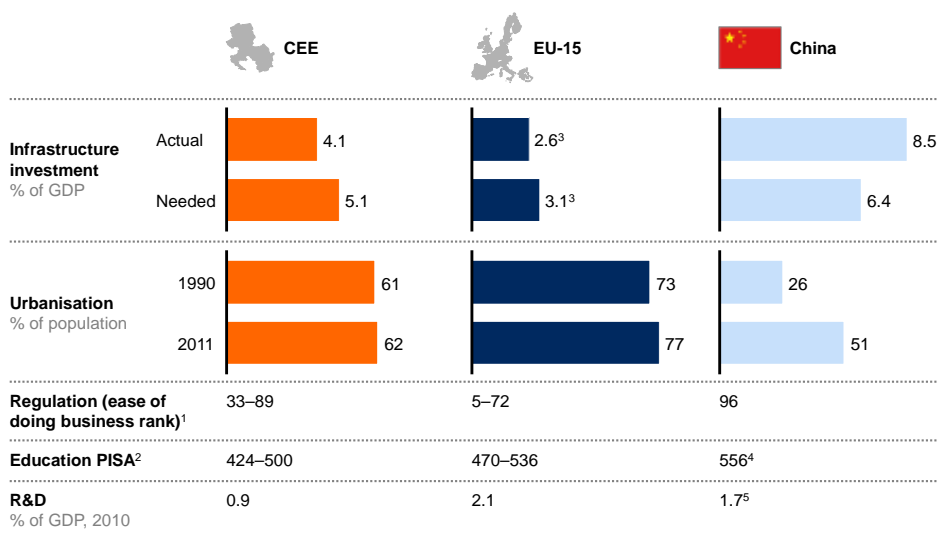
strengthen the investing industry by encouraging the continuing development of deep and stable financial markets. CEE equity markets are small and issues are thinly traded, and small investors are not stock market investors for the most part.

While we believe that these strategies would work across the eight economies, we also understand that the eight nations have individual needs as well, and some ideas do not “travel”—agricultural exports will not be a major opportunity for the Czech Republic, and Croatia has no auto manufacturing clusters to build up, for instance. However, we also believe that CEE nations need both to address the specific barriers to growth in their nations and adopt strategies that work on a regional basis and lift all eight economies.

SUPPORT THE GROWTH STRATEGY WITH CRITICAL “ENABLERS”

The initiatives described above depend on a series of enablers that would provide a strong foundation for growth. These range from investments in infrastructure, to policies to enable urbanisation, to investments in workforce quality. These enablers build on existing strengths and address certain weaknesses to provide a strong platform for sustainable growth (Exhibit E5).

Exhibit E5
CEE economies need to build a strong foundation for further growth



1 Best and worst performers for CEE and EU-15.

2 OECD Programme for International Student Assessment, best and worst performers for CEE and EU-15.

3 EU-27.

4 China score is for Shanghai.

5 2009 data.

SOURCE: World Bank; Organisation for Economic Co-operation and Development; McKinsey Global Institute analysis

- Infrastructure.** We estimate that to support a GDP growth of 4.6 percent annually, the region would need to invest more than 5 percent of GDP in infrastructure. Of this, more than 20 percent would need to go into roads, which could help bring trucking productivity closer to EU levels (today, CEE truckers average only 8 kilometres per hour worked compared with 13 in the EU-15).

- **Urbanisation.** The CEE region is less urbanised than Western Europe, with 62 percent of CEE residents living in cities, compared with 77 percent in the EU-15. Cities often offer greater employment opportunities, and a higher level of urbanisation has been associated with higher levels of wealth. It is also more efficient to deliver public services in cities. In the private sector, population density is important for the success of such services as modern-format retailing. Many CEE nations have two-speed economies, with a divergence between the (capital) cities and rural areas. Issues in urban planning and transportation as well as explicit policies for rural areas are slowing urbanisation. Over the past two decades, the level of urbanisation in the CEE region has barely moved (rising from 61 percent to 62 percent), while other rapidly growing economies have raised urbanisation rates. Chinese urbanisation soared from 26 percent to 51 percent.
- **Regulation and institution building.** While CEE economies have moved up in the global rankings in terms of providing a good environment for business, additional regulatory reforms can help attract investment and encourage entrepreneurship. Foreign investors have questions about legal protections, and the processes for starting businesses and expanding existing ones are relatively slow, discouraging both foreign investors and domestic business owners. Improving the regulatory environment requires streamlining administrative procedures and adopting new legislation. Moreover, to carry out reforms and enforce laws (for example, cracking down on the informality that reduces productivity in construction), institutional capability building will be needed. Ministries and other organisations need to have clear objectives, accountability, and performance targets.
- **Education and skills.** Despite the region's success in providing high-skill labour, it will need to make additional investments in education and training to address the need for high-skill workers in fields such as advanced manufacturing and outsourcing. CEE students overall score below the OECD average on the PISA (Programme for International Student Assessment) test, the region lacks outstanding research universities, and we find that post-secondary education is not well aligned with labour market needs. An immediate priority should be to revamp vocational training to create a workforce with job-ready skills and reduce youth unemployment. The region also suffers from a lack of management skills, which, among other measures, might be addressed by policies to repatriate workers who have emigrated for better opportunities.
- **R&D and innovation.** R&D spending in the CEE economies averaged 0.9 percent of GDP in 2010, compared with 2.9 percent in the United States, 2.1 percent in the EU-15, and 1.4 percent in the BRIC economies (Brazil, Russia, India, and China).⁵ To improve its global competitiveness and support a move into higher-value-added goods and services, the region should increase its investments in R&D from both private and public sources. Steps to increase innovation and R&D activity in the region include further development of industry clusters in knowledge-intensive industries, increased industry/university collaborations, and support for startups.

5 *World development indicators 2010*, World Bank, 2010.



The eight economies of Central and Eastern Europe have demonstrated their commitment to growth and to improving the lives of their citizens. They undertook sweeping reforms in the 1990s to open their economies to investment and trade. They made difficult decisions to raise productivity, which led to rising wealth. The crisis and the slow global recovery have interrupted this progress, but renewed efforts to address the issues that hold back growth and implement a refined growth model can make the CEE region one of the most dynamic areas of economic development in the global economy.



1. A remarkable journey (1990–2012)

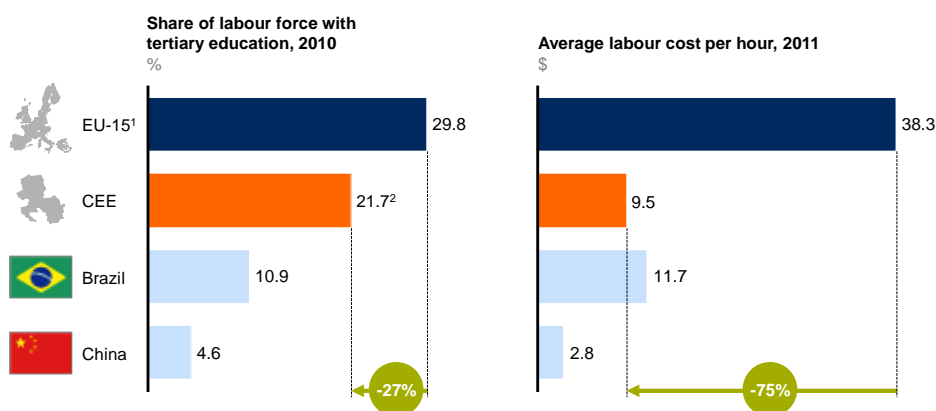
Over the past two decades, the economies of Central and Eastern Europe have established a record of growth and economic progress that few regions have matched. On many metrics, the eight nations that we consider—Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia—have been standout performers in the global economy.⁶ Emerging from decades of socialism, they quickly took steps to unleash the inherent strengths of their economies by privatising state-owned industries and implementing labour reforms, attracting a flood of capital and foreign direct investment that helped drive productivity improvements and rising per capita GDP.

Despite the lingering impact of the global financial crisis of 2008–09, which also is felt in Western Europe and the United States, the core strengths and advantages of CEE economies remain intact.

- Highly educated yet affordable workforce.** About 22 percent of the entire labour force has tertiary education and 29 percent of workers aged 25 to 34 have college degrees, matching the Western European rate of 29 percent for all workers. The number of science, technology, engineering, and mathematics (STEM) graduates rose by 6.6 percent annually from 2005 to 2010, and there are an estimated 561,000 such graduates in CEE countries. Hourly wage rates in the region average 75 percent less than in the EU-15 (Exhibit 1). However, there are sharp intraregion disparities. In Bulgaria and Romania, labour costs are 90 percent lower than the EU-15 average (and less than

Exhibit 1

The CEE region offers an educated workforce and substantially lower labour costs than the EU-15



1 Excluding Luxembourg.

2 Excluding Croatia.

SOURCE: Organisation for Economic Co-operation and Development; United Nations; Eurostat; Economist Intelligence Unit; World Bank; McKinsey Global Institute analysis

6 This report covers the Eastern European members of the European Union, without the Baltic states.

double the average cost in China). In the Czech Republic, labour costs are higher—just 60 percent lower than in the EU-15 and four and a half times the Chinese average.

- **Stable macroeconomic environment.** CEE economies have enjoyed a relatively stable macroeconomic climate since EU accession, even during the global downturn.⁷ Exchange rates have rarely fluctuated beyond plus or minus 15 percent (vs. the euro), and public budget deficits averaged around 3 percent of GDP between 2009 and 2012, almost half the level of the EU-15 over the same period. Overall public debts have not exceeded 60 percent of GDP since 2004, except in Hungary, while the average for EU-15 nations (except Greece) was around 85 percent in 2011.
- **Favourable business environment.** The CEE economies have become much easier places to do business, although certain processes could be improved and legal protections could be strengthened (see Chapter 3 for more details). Recently, Eastern Europe and Central Asia (as clustered in the World Bank's Doing Business survey) have been rated the world's second most business-friendly region, overtaking East Asia and the Pacific, and just below the OECD high-income economies.⁸ The average statutory corporate tax rate is 18 percent, compared with an average of 26 percent in the EU-15, 22 percent in Asia, 28 percent in Latin America, and 29 percent in Africa. On metrics of corruption, the CEE economies lag behind the EU-15 nations but are far ahead of China, India, Brazil, and Russia.⁹
- **Strategic location.** The region is in close proximity to large consumer markets, as well as new sources of global growth (Exhibit 2). The furthest CEE nations are less than 1,500 kilometres from Germany and the other Western European economies, one of the most important consumer markets in the world, with nearly 400 million citizens and \$12.3 trillion (€8.8 trillion) in annual consumption.¹⁰ On the east lie Russia and other CIS nations, as well as Turkey and the Middle East. As global economic growth moves east and south, Central and Eastern Europe could be well positioned to participate.

CEE economies also have other strengths that can help the new growth strategy. On average, CEE nations have more mobile and fixed telecom connections per capita than the BRIC economies. Internet penetration averages 61 percent of the population, compared with 27 percent in the BRIC economies (and 76 percent in the EU-15).¹¹ On basic health indicators, the CEE economies also are more

7 The Czech Republic, Hungary, Poland, Slovakia, and Slovenia were part of the 2004 European Union enlargement. Bulgaria and Romania joined in 2007, and Croatia in 2013.

8 Doing Business uses World Bank groupings for Eastern Europe and Central Asia, which includes the eight economies we consider here, as well as the CIS countries, the Western Balkans, and the Baltic states. *Doing business 2014*, World Bank and International Finance Corporation, 2013.

9 The World Bank ranks nations for corruption on a 0 to 100 scale, with 100 being least corrupt. The average for CEE countries was 50. This compares with EU-15: 72; Brazil: 43; China: 39; India: 36; and Russia: 28. See *Corruption perceptions index 2012*, Transparency International, 2012.

10 We use the term "Western Europe" mainly to refer to the EU-15 nations (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom).

11 Among population aged 16 to 64.

advanced: life expectancy for a CEE resident is almost five years longer than for a BRIC citizen.

Exhibit 2
CEE countries are strategically located to reach the Western European market



SOURCE: McKinsey Global Institute analysis

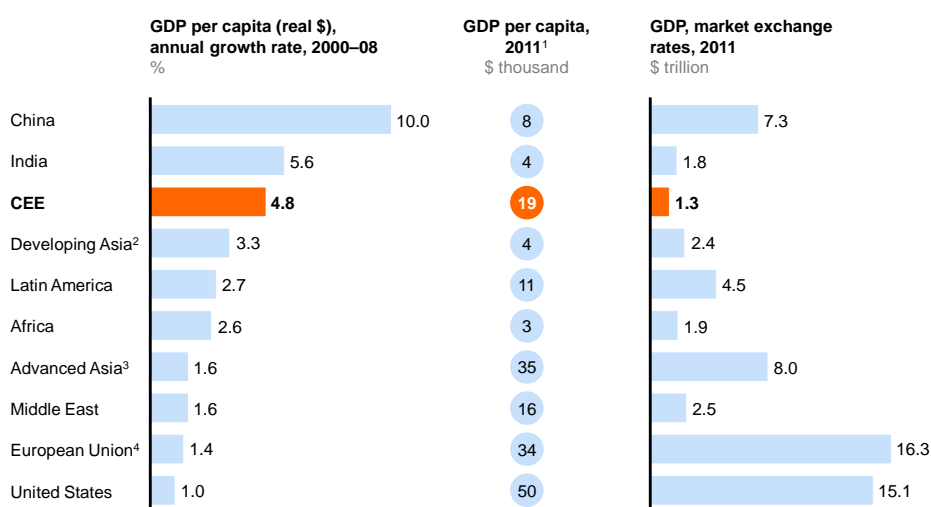
BEFORE THE CRISIS, CENTRAL AND EASTERN EUROPE MADE LARGE GAINS IN GDP AND GDP PER CAPITA

Between 2000 and 2008, GDP growth in the CEE region averaged 4.6 percent annually in real terms. Per capita GDP increased at an average rate of 4.8 percent a year in real terms, behind the rates achieved by China and India (Exhibit 3). At the end of this period, the combined GDP of the eight CEE economies was \$1.4 trillion (€1.0 trillion) at market exchange rates, before declining in the recession. In 2011, total regional GDP was back to \$1.3 trillion (€0.9 trillion), putting the region just behind India at \$1.8 trillion (€1.3 trillion), and all of Africa, which had a GDP of \$1.9 trillion (€1.4 trillion) in 2011.¹² Since the recession, the region overall has not recovered to 2008 GDP levels.

12 In this report, we use US dollars (\$) when we describe values in purchasing power parity terms, when we refer to international comparisons, and when figures from original sources (for example, IMF data) are available only in dollars. Figures are usually presented in both US dollars and euro, using annual average exchange rates for the year cited.

During this period, per capita income in the CEE economies grew four times as fast as in Western Europe, reaching approximately \$19,000 in 2011 in purchasing power parity (PPP) terms and narrowing the gap with the EU-15 nations. Average per capita GDP across the CEE countries rose from 38 percent of the EU-15 average in 1995 to 54 percent in 2011. Labour productivity, based on value added per worker, also rose, from 37 percent of the EU-15 average in 1995 to 60 percent in 2011.

Exhibit 3 Central and Eastern Europe was one of the fastest-growing regions in the world before 2008



1 In purchasing power parity terms.

2 Not including China and India.

3 Japan, Hong Kong, South Korea, Singapore, and Taiwan.

4 Not including CEE.

SOURCE: International Monetary Fund; McKinsey Global Institute analysis

CEE economies attracted investment that drove growth and productivity gains

The end of socialism opened the CEE economies to foreign investment as CEE governments quickly moved away from state control of their economies. Industries were privatised, and labour reforms were adopted. Foreign companies and investors quickly took advantage of the opportunity to tap new markets and investing opportunities. Companies from Western Europe, the United States, and Asia, established facilities to take advantage of the CEE region's high-skill and low-cost labour pool.

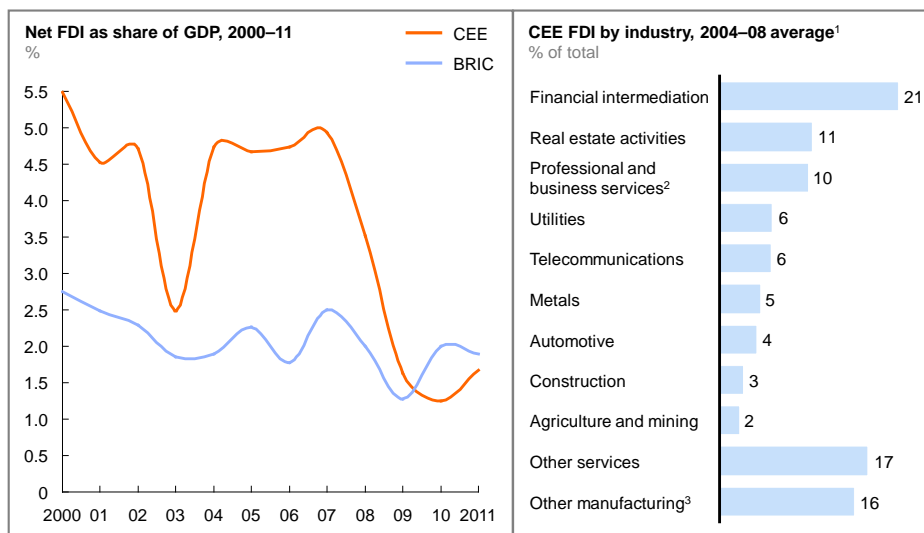
Investors and companies acquired assets and built factories, distribution centres, and other operations, propelling FDI to levels far above those seen even in the BRIC economies. At the peak in 2007, net flows of FDI into the CEE economies totalled \$47 billion (€33 billion), or 5 percent of the region's GDP, about twice the BRIC average (Exhibit 4).

Investment was focused in several sectors, including finance, automotive, and outsourcing and offshoring. With bank privatisations in the early 1990s, financial services became the largest target of FDI. Notable investors included Erste and Raiffeisen from Austria, KBC from Belgium, UniCredit and Banca Intesa from Italy, and Société Générale from France. From 2004 to 2008, one-fifth of the \$220 billion (€168 billion) of net FDI inflows to CEE nations went into the financial

sector, and today foreign interests hold 85 percent of the equity in the top ten banks in the region. Erste acquired Ceska Sporitelna in 2000 and BCR Romania in 2006. Raiffeisen bought Banca Agricola Romania in 2001 and also established its own operations in Hungary in 1986 and in the Czech Republic in 1993. UniCredit purchased Pekao Poland in 1999.

Exhibit 4

CEE economies attracted more FDI as a share of GDP than other developing economies; six industries captured almost half of FDI inflows



1 Calculated as delta in FDI stock; excludes Croatia.
2 Includes advertising, accounting, architecture, audit, business consultancy, legal, and market research.
3 Largest subcategories are chemicals (4.3%), food (2.1%), and textiles/apparel (2.1%).

SOURCE: UNCTADstats; Economist Intelligence Unit; Eurostat; McKinsey Global Institute analysis

In the automotive sector, Western European and Asian companies invested in local automakers and established new factories. Fiat acquired Poland’s FSM in 1992; Volkswagen took over Škoda in the Czech Republic in 1991; and Renault bought Dacia in Romania in 1998. Audi, Opel, and Suzuki all opened plants in Hungary; Peugeot, Toyota, and Hyundai established operations in the Czech Republic; and Peugeot Citroën invested in Slovakia. Along with the automakers came automotive parts suppliers, creating automotive clusters across the region. Domestic auto sales boomed, with new vehicle registrations growing by more than 20 percent between 2003 and 2007 (compared with 5 percent in the EU-15). However, most of the output of these plants is geared to exports. Nearly two-thirds of automotive exports go to EU-15 markets, and 60 percent of these sales are concentrated in Germany, the United Kingdom, and France. A growing network of parts suppliers in the CEE also feeds Western European auto plants, particularly in Germany.

Outsourcing and offshoring businesses have become a target for foreign investment in the past decade. Global companies such as Credit Suisse, Hewlett-Packard, Philips, and UniCredit set up operations to take advantage of the large talent pools, low wages, and attractive office rents. By 2006, an estimated 200 business process outsourcing centres were located in CEE nations, most of them clustering in major cities such as Warsaw, Budapest, and Prague.

Across industries, the influx of foreign investment helped raise productivity. At the beginning of the 1990s, labour productivity in the CEE manufacturing sector varied from 10 to 30 percent of the EU-15 average, depending on the industry.

Prior to 1990, there had been little investment in automation, and even now capital investment per worker continues to lag behind Western European levels. Productivity was also limited due to poor labour management, limited trade, and the absence of market competition to force firms to improve operating efficiency. National productivity rates were also held down by the high share of workers employed in the public sector and state-owned enterprises.

Foreign companies brought not only money to capital-starved industries, but also technology, managerial expertise, and the ability to exploit economies of scale. All these factors helped raise productivity. In the automotive segment, for example, total vehicle production in the CEE countries more than doubled from 1.5 million units per year in 2000 to 3.4 million in 2011, while auto manufacturing employment rose by 60 percent, to 535,000 in 2010. The story of Škoda, the Czech automotive company that is now part of the Volkswagen group, illustrates how new investors have affected sector productivity (see Box 1, “Škoda’s productivity revolution”).

Box 1. Škoda’s productivity revolution

When Czech automaker Škoda was taken over by the Volkswagen group in 1991, it was in dire condition. One of the oldest car manufacturers in Europe, Škoda was suffering from underinvestment in modern production methods and technology and was reduced to producing a single, outdated model.

The Volkswagen group decided to maintain the Škoda brand and develop the company as a standalone producer, using Volkswagen platforms and technological know-how. The Volkswagen investment helped drive a striking increase in productivity through technology transfer, expanded capacity (which improved economies of scale), modern management methods, and lean manufacturing techniques. After

paying DM 2 billion (\$1.3 billion) for Škoda, Volkswagen invested nearly DM 6 billion (\$3.8 billion) more over the course of a decade to install modern equipment and double capacity. Equally important, Volkswagen worked with Škoda employees to improve behaviour and performance.

The result: productivity (measured in cars produced per employee) has risen by more than 80 percent since 1996. The revitalised company negotiated new agreements with suppliers, which pushed them to increase their productivity and quality as well. Today Škoda produces seven different product ranges, and annual sales have jumped from 170,000 units to almost one million. Škoda cars are now sold across the globe.

FDI has both direct and indirect effects on productivity. In addition to consolidating and rationalising sectors and introducing technology and more efficient methods, foreign investment leads to spillover effects. For example, the foreign automakers that have bought subsidiaries in the CEE region or established factories there have also attracted upstream industries (for example, parts suppliers) and have influenced downstream players. Spillover effects include transfer of technology—by specifying how parts must be built, for example— or simply influencing other companies to imitate the more advanced methods of the foreign companies. Often, these indirect effects involve the adoption of processes, managerial and organisational innovations, and knowledge. The result is more agile and productive local firms.¹³

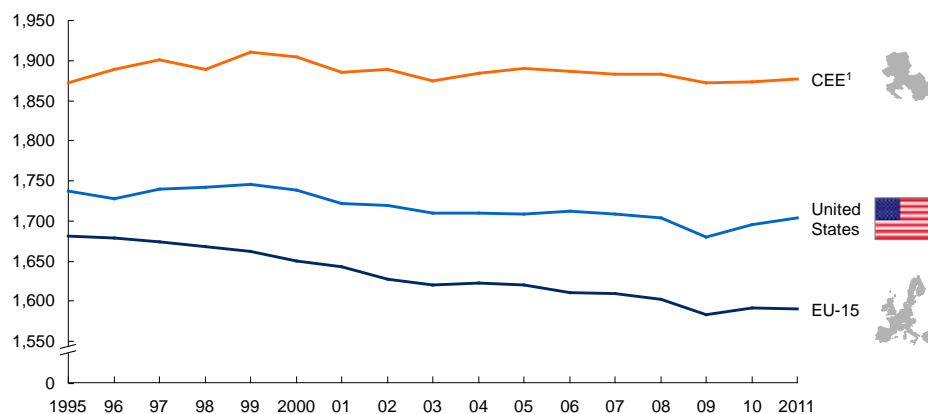
13 For a discussion of direct and spillover effects of FDI on productivity, see Martin Bijsterbosch and Marcin Kolasa, *FDI and productivity convergence in Central and Eastern Europe: An industry-level investigation*, European Central Bank working paper series number 992, January 2009.

Working hours are higher than in the EU-15, but participation is lower

In the pre-crisis period, the CEE economies managed to sustain growth without raising labour participation rates because labour utilisation was high. Throughout the 1990s, several waves of industrial restructurings and labour reforms, such as those in Poland’s mining and steel industries, led to higher worker productivity, elimination of redundant positions, and longer workweeks. Across the CEE, workers today put in an average of 280 more hours than workers in the EU-15 do—1,877 annually compared with 1,590 (Exhibit 5). This discrepancy is partially a result of the relatively low percentage of part-time positions in CEE economies. Average hours worked per year in the CEE region also exceed the rate in the United States, a highly liberalised labour market. Five CEE countries—the Czech Republic, Hungary, Poland, Romania, and Slovakia—exceed the US hours-worked level. Poland leads the region, with approximately 1,900 hours per worker per year. Poles routinely work overtime, and an estimated 7 percent of Polish workers have a second job. Bulgaria, by contrast, has the lowest average annual hours in the CEE area, at 1,650 hours per year per worker, below the US rate.

Exhibit 5
Growth in CEE economies has been driven in part by high average hours worked

Hours worked per worker annually



¹ Excluding Croatia.

SOURCE: The Conference Board; Organisation for Economic Co-operation and Development; McKinsey Global Institute analysis

However, overall labour participation rates have remained lower than in the EU-15 (65 percent compared with 72 percent), and female labour participation is particularly low (59 percent compared with 66 percent). The lack of part-time employment, which appeals to many women who juggle family responsibilities, explains part of the female participation gap. While the number of part-time jobs in the EU-15 has been steadily rising and now accounts for 20 percent of all positions, part-timers account for less than 10 percent of CEE employment.

The number of hours worked has declined slightly and is likely to fall further, putting pressure on CEE economies to find ways to raise labour force participation. This challenge will intensify as ageing and retirements begin to shrink the labour force.

THE CRISIS EXPOSED WEAKNESSES IN THE CEE GROWTH MODEL

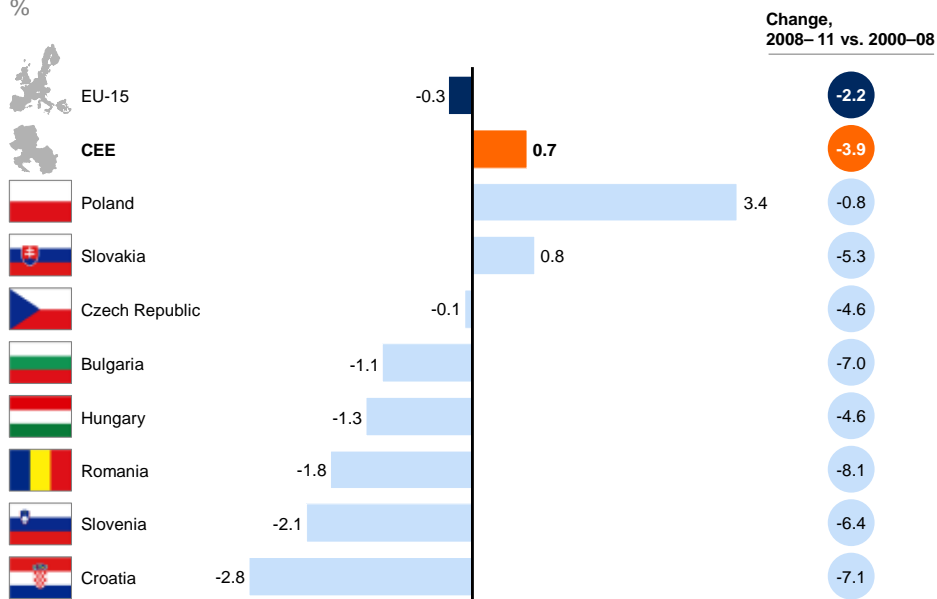
In the wake of the global financial crisis and recession—and as the Eurozone continues to grapple with debt crises—the economies of the CEE region have struggled to recover their prior growth rates. In most countries, demand has been weak and GDP growth averaged only 0.7 percent from 2008 to 2011. Aside from Poland and Slovakia, every CEE nation had lower GDP in 2011 than in 2008 (Exhibit 6). The recent record illustrates the vulnerabilities of the growth model—a high level of domestic consumption fuelled by debt, a high reliance on the EU-15 for exports and capital inflows, and inadequate levels of domestic savings to fund investments. It also illustrates how CEE countries diverge. Poland, which avoided recession, has been experiencing relatively robust growth, while most other CEE economies are struggling to restart sustainable growth. Poland has pursued an independent monetary policy, initiated countercyclical fiscal moves, and has benefited from stable domestic demand and its close ties to the German economy.

Exhibit 6

Since the financial crisis, CEE growth has not rebounded

Real GDP growth, 2008–11

%



SOURCE: World Bank; McKinsey Global Institute analysis

Consumption and investment were fuelled by foreign borrowing

High GDP growth across the CEE region was heavily dependent on consumption before the crisis. Consumption averaged 80 percent of GDP between 2005 and 2008, comparable to levels in Western Europe but far above levels in other developing economies. During that period, consumption accounted for 50 percent of GDP in China and 68 percent in India. CEE consumers spent their rising incomes and relied on credit to fuel consumption before the crisis. The stock of loans in the CEE region grew at a 26 percent annual rate between 2005 and 2008, while the stock of savings grew less rapidly, at 13 percent annually. Consumer loans grew rapidly and reached 8 percent of GDP in 2012, compared with 6 percent in EU-15 economies.

Lending by Western European banks helped fuel domestic consumption and led to real estate bubbles in Bulgaria, Romania, and Slovakia. Between 2000 and 2007, residential real estate prices rose by three and a half times in Bucharest, Romania, more than tripled in Bratislava, Slovakia, and doubled in Sofia, Bulgaria. Dependence on borrowing to finance consumption left the CEE countries highly vulnerable when the global and European crises hit. In 2009, consumption plunged by 10 percent from the previous year.

Foreign capital was also instrumental in the pre-crisis expansion. When the crisis hit, investment flows—80 percent of which had originated in Western Europe—virtually collapsed; they have only partially recovered. In 2010, annual FDI inflows were \$20 billion (€15 billion), less than half of the peak level. The loss of FDI has made it harder for the CEE economies to finance their current account deficits, which averaged 5 percent of GDP between 2000 and 2011. The ebb of foreign investment has also removed a driver of labour productivity improvements.

CEE trade was concentrated in EU-15 markets and in a few industries

Between 2001 and 2011, the ratio of trade (exports plus imports) to GDP increased from 73 percent to 104 percent in CEE nations. In that decade, exports grew at an annual rate of 17 percent. However, trade has been concentrated both geographically and in certain sectors, making the CEE region less resilient when those markets and categories are weakened. Trade among CEE nations accounted for 18 percent of the total exports by CEE economies in 2010, while trade with the EU-15 accounted for 59 percent of the total. Germany is the single largest customer, absorbing 25 percent of CEE exports, not least due to close integration of supply chains with German manufacturers. Exports to the BRIC countries accounted for only 17 percent of trade and grew by 13 percent annually from 2005 to 2010; Russia accounted for only 7 percent of CEE exports (Exhibit 7).

CEE exports are also concentrated in a few industries. Machinery and transport equipment is the most important category, generating 45 percent of CEE goods exports, followed by manufactured goods and articles, at 28 percent.¹⁴ This mix is similar to that of the EU-15 nations, where machinery and transport equipment exports amount to 42 percent of total exports and manufactured goods and articles represent 23 percent. The automotive industry is the clear leader in terms of exports across all CEE countries, with the exception of Bulgaria. Nearly two-thirds of automotive exports go to the EU-15, of which 60 percent goes to three countries: Germany, the United Kingdom, and France. By comparison, most EU-15 automotive exports are sent to the United States, China, Russia, Switzerland, and Turkey, which account for 40 percent of Western European auto exports.

Service exports from CEE economies are relatively small, representing only 20 percent of total exports, and are also concentrated in Western European markets and in a narrow range of industries. EU-15 customers purchased 57 percent of CEE service exports in 2010. Almost 60 percent of the more than \$100 billion (€75 billion) worth of service exports were travel and transportation (for example, sea, air, and land transportation, as well as travel expenses for hotels and restaurants), followed by outsourcing and offshoring services. Bulgaria

14 This category includes metallic manufactures, textiles, fibres, fabrics, and clothing.

and Croatia in particular are benefiting from foreign tourism, which makes up between one-half and three-quarters of their total service exports.

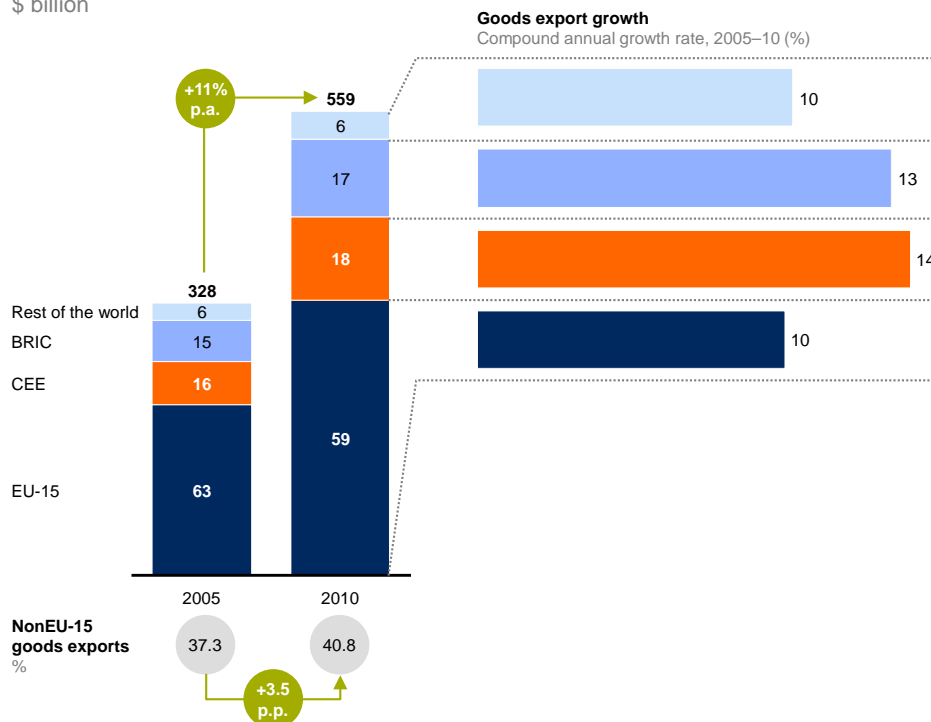
A continuing concentration of exports in a narrow group of products and a limited geographical market may expose the CEE countries to increased instability of export earnings. Although export activity has been growing between CEE countries and BRIC countries in the past couple of years, the CEE region remains highly dependent on demand in the EU-15 markets. The share of exports to developing economies is still relatively small.

Turkey provides an example of a far more diverse export profile, which it continues to expand with targeted policies. It has a large range of exports—textiles, food, automobiles, and tourism, for example—that are purchased by a large portfolio of nations, including in rapidly growing Middle Eastern markets. The EU consumes 37.4 percent of Turkish exports (8.9 percent go to Germany), 17.9 percent go to the Middle East, 10.7 percent to former Soviet Union countries, and 6.3 percent to North Africa. Turkey’s government has identified 17 high-priority markets and offers exporters special supports and incentives for penetrating them.¹⁵

Exhibit 7

CEE is highly dependent on EU-15 markets for exports

CEE goods export
\$ billion



SOURCE: UNCTADstat; McKinsey Global Institute analysis

15 “Turkey shifts exports targets”, *Hurriyet Daily News*, May 22, 2012.

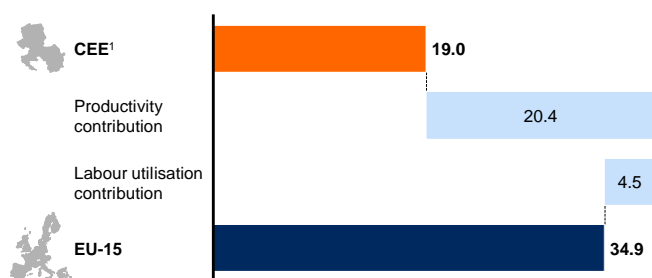
Lack of investment and ageing now restrict productive capacity

In the wake of the recession and the slowdown in FDI flows, the CEE region's relatively low investment in capital stock is also apparent. While labour productivity grew rapidly in the 1990s and 2000s, CEE productivity still lags behind that of the EU-15: output per worker across the CEE averages \$19,000 per year in purchasing power parity, compared with \$34,900 in the EU-15 (Exhibit 8).

Exhibit 8

Lower productivity is the main driver of the gap in GDP per capita between CEE economies and the EU-15

GDP per capita, 2011, purchasing power parity
\$ thousand



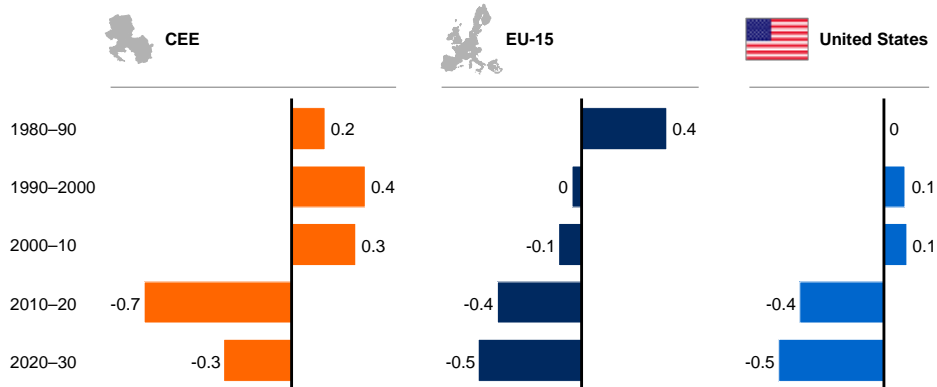
1 Excluding Croatia.

SOURCE: The Conference Board; Eurostat; IHS Global Insight; International Monetary Fund; McKinsey Global Institute analysis

Before the crisis, CEE economies kept labour utilisation relatively stable, with hours worked decreasing only slightly and participation rates improving marginally. Now the region faces a labour force challenge as populations age and the labour force begins to shrink. The working-age population in the CEE nations is expected to decline by an average of 0.6 percent a year between 2010 and 2030, while the population aged 65 and older is projected to rise at a 1.9 percent annual rate. With limited potential to increase hours worked, CEE industries will be hard pressed to raise output with more capital investment and higher labour participation rates. Under current trends, we estimate that the effect of ageing on the labour force could reduce per capita GDP by 0.7 percent a year between 2010 and 2020 and 0.3 percent a year between 2020 and 2030 (Exhibit 9).

In addition to posing labour market challenges, the ageing of the population will impose considerable strain on CEE public finances, given the large obligations for pensions and health care. The European Commission forecasts that by 2030, annual expenditure on pensions in CEE economies will increase by more than 50 percent and public health-care expenses will grow by up to 90 percent, exceeding GDP growth rates (in real terms).¹⁶ Not all countries in the region will be impacted in the same way. In Slovakia, both annual public pension payments and health-care spending are expected to double in the next 20 years. In Poland and Slovenia, expenses in both categories are expected to rise by one and a half to two times current levels. The lowest increase is expected in Hungary, with pension spending growing at less than 30 percent in the next two decades, relatively in line with the country's GDP growth, and health-care costs at less than 70 percent.

16 Based on *The 2012 Ageing Report: Economic and budgetary projections for the 27 EU member states (2010–2060)*, European Commission and Economic Policy Committee, February 2012.

Exhibit 9**Ageing will have a larger impact on CEE labour forces than in the EU-15 or the United States in 2010–20**Contribution of share of working-age population growth to GDP per capita growth¹
%¹ Assuming stable labour utilisation and labour productivity growth.

SOURCE: United Nations Population Division; McKinsey Global Institute analysis

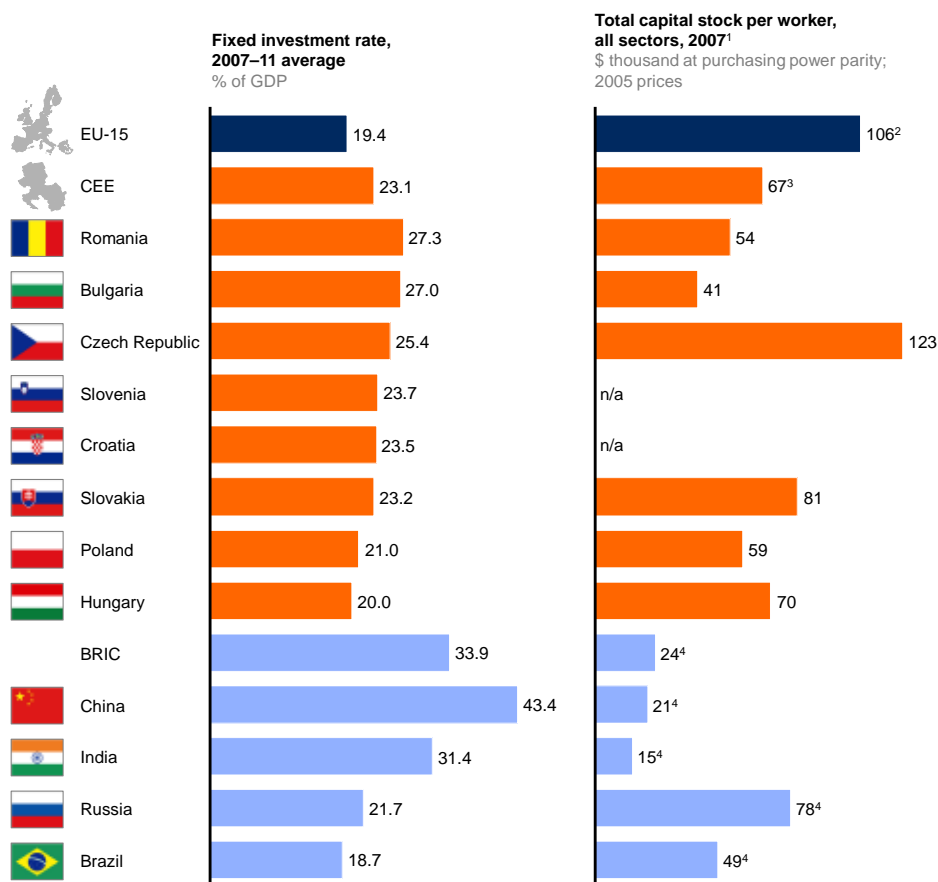
Domestic investment and saving rates are too low

The huge inflows of foreign investment before the crisis masked an underlying problem: relatively weak levels of domestic saving in CEE economies. Since at least 1995, overall savings in the CEE economies have failed to cover investment. National saving rates varied year to year but on average were around 19 percent of GDP, while investment generally hovered around 24 percent of GDP. The imbalance was the primary factor in current account deficits throughout the period, which ranged from about 4.2 percent of GDP in 2001 to 7.7 percent in 2007. Bulgaria and Romania had the largest current account deficits in 2007, amounting to 25.2 percent and 13.4 percent of GDP, respectively.

CEE economies had a relatively low rate of fixed investment prior to the crisis. While CEE investment rates are higher than in the mature EU-15 economies, they trail those of fast-growing economies such as the four BRIC nations, where investment absorbs 34 percent of GDP (Exhibit 10). The total installed capital stock in the CEE economies is roughly 60 percent of the EU-15 level, about \$67,000 per worker, compared with \$106,000 in the EU-15 in PPP terms.

Another way of viewing the investment gap is to consider how CEE capital stock compares with global averages. Typically, a nation's capital stock amounts to two to three times GDP. Based on this ratio of fixed capital to GDP, the CEE region would need to invest at least 26 percent of its combined GDP in capital stock to restore a 4 to 5 percent GDP growth rate.

Exhibit 10
Most CEE economies are behind the EU-15 in capital investments



1 Excludes construction and real estate.
 2 Excludes Luxembourg.
 3 Excludes Croatia and Slovenia.
 4 Estimated; assumes construction and real estate capital stock amounts to 20% of total.
 SOURCE: Eurostat; World Bank; IHS Global Insight; International Labour Organisation; McKinsey Global Institute analysis



The eight economies of Central and Eastern Europe that we examine in this report were on a long and steep growth trajectory before the financial crisis. Foreign investment was flooding in, and they were narrowing productivity and per capita GDP gaps with their Western European neighbours. But the global economic crisis exposed weaknesses in the growth model, and the rapid growth of the pre-crisis years has not resumed. In the next chapter, we discuss a new model for economic growth that plays on the region’s intrinsic advantages, addresses deficiencies, and provides a foundation for sustainable growth.



2. The new growth model

The most important factors that enabled the striking growth of Central and Eastern European economies prior to the global financial crisis remain in place. By building on these strengths to update and refine their growth models in a coordinated way and by addressing weaknesses that inhibit growth, CEE economies can become more globally competitive and resume strong growth.

The updated model would focus on investments and exports for growth, raise both productivity and labour participation, revive FDI flows, and create a larger pool of domestic savings (once aggregate demand picks up) to fund investment-led growth (Exhibit 11). We identify three strategic thrusts to implement the model as well as a series of enablers to provide a strong foundation for growth across CEE economies: investments in infrastructure, urbanisation, workforce skills, and innovation, as well as further improvement of the regulatory system and institutions.

Exhibit 11

A new CEE growth model would increase investments, maintain balanced trade, and accelerate productivity growth

	CEE 2013	New growth model	CEE 2025
Demand	<ul style="list-style-type: none"> Consumption-driven growth (80% of GDP) Exports concentrated in EU-15 and in a few industries 	<ul style="list-style-type: none"> Expand exports and focus on higher value-added activities Unleash growth and productivity in domestic sectors Finance growth via renewed FDI and higher domestic savings 	<ul style="list-style-type: none"> Balanced and diversified trade with increased capital contribution
Supply	<ul style="list-style-type: none"> GDP growth driven by increasing hours worked and moderate productivity growth 		<ul style="list-style-type: none"> Higher investment rate to above pre-crisis level Increased labour force participation rates to compensate for ageing Accelerated productivity growth
Financing	<ul style="list-style-type: none"> High foreign borrowing, collapse of FDI since the crisis, low domestic savings 		<ul style="list-style-type: none"> Renewed FDI and domestic savings

SOURCE: McKinsey Global Institute analysis

THREE STRATEGIC THRUSTS

We identify three major thrusts for implementing the new model: expanding exports and upgrading the value add of exports, raising productivity and investment in lagging sectors, and increasing domestic saving rates to fund investment once aggregate demand picks up. Another issue that the CEE economies will need to address is the labour supply. In addition to making investments in education and training to ensure that workers have needed skills, CEE economies will need to take steps to raise labour participation rates to compensate for the ageing of the workforce (See Box 2, “Ensuring an adequate labour supply”).

- **Expand exports and focus on higher-value-added activities.** The CEE region already has a trade surplus equivalent to 2.0 percent of GDP in knowledge-intensive manufacturing, due largely to automotive assembly and automotive parts manufacturing. We see opportunities to evolve from being the source of inexpensive labour for Western European carmakers to providing broader and higher-value functions. In knowledge-intensive services exports, the CEE region has built a highly competitive outsourcing and offshoring (O&O) capability and is positioned to move into more high-value-added activities. We also see opportunities for CEE economies to move up the value chain in food and food processing exports. In food processing, CEE nations could become regional hubs serving Greater Europe and beyond.
- **Unleash growth, productivity, and investment in domestic sectors.** Several large sectors—construction, transportation, retail, and network industries—continue to show significant productivity gaps compared with Western Europe. To raise productivity in construction, the region can reduce reliance on informal labour, encourage companies to invest in equipment, and adopt modern methods and materials. CEE truckers might also consider ways to move up from transportation to higher-value-added services such as logistics. The retail sector is relatively modernised, but companies have opportunities to raise productivity with technology investments and lean processes. CEE economies should also continue the path of liberalisation and competition in network industries.
- **Renew FDI flows and generate higher domestic savings to fund growth.** CEE economies have among the world's lowest saving rates, which is reflected in long-standing current account deficits. The region could raise domestic saving rates by promoting the further development of stable financial markets and more liquid corporate bond and equity markets and by creating demand for financial products by reforming the pension and insurance systems. The timing of these initiatives will depend on progress on other fronts. When exports rise, driving GDP growth, incomes will rise, accelerating domestic demand and providing the means to increase domestic savings needed to fund investment. Therefore, strong demand is a prerequisite for pursuing higher savings rates.

These three strategies of the new growth model will require a higher degree of coordination among private- and public-sector players within and across CEE economies. Policy makers in the CEE region can coordinate and jointly create policies to attract foreign investors in particular industries, such as food processing. The private sector can work across borders, too. In the Balkan region, 40 Serbian and Slovenian companies came together to form the Fenix construction consortium in January 2012. The goal is to bring together construction companies from different countries to bid jointly on overseas projects that none of the Fenix members could handle by themselves. The group now has 50 members with 35,000 employees and includes companies from Bosnia, Herzegovina, Montenegro, Serbia, and Slovenia.

Box 2. Ensuring an adequate labour supply

As the population ages and the total number of working-age citizens begins to shrink, labour participation rates (the percent of the population that is employed or looking for work) will need to rise to maintain a sufficient labour force, even as productivity accelerates. Fortunately there are clear opportunities for raising participation rates in the CEE economies as well as proven ways to do so.

Our analysis shows that almost all of the gap between participation rates in CEE economies and Western Europe (65 percent compared with 72 percent) can be explained by lower participation of women and younger workers, and by earlier retirement ages. For instance, in Hungary and the Czech Republic, female participation rates are 51 percent and 56 percent, respectively, vs. 66 percent in Germany and 71 percent in Denmark. A main reason for low female participation is lack of access to part-time work, which is often better suited to women who have family obligations. Only 9 percent

of CEE working women have part-time positions, compared with nearly one-third of actively employed women in the EU-15. Participation of workers aged 15 to 24 is substantially lower in CEE economies than in the EU-15; 35 percent of young males in CEE countries are in the labour force, compared with 47 percent in the EU-15, and 25 percent of CEE young females are in the labour force, compared with 42 percent in the EU-15. At the other end of the age spectrum, CEE men, on average, retire at 61, a year earlier than in the EU-15, while CEE women retire at 59, two years earlier than EU-15 women.

Other nations have raised female labour participation by improving child-care options and providing other supports and incentives. Vocational training has been proven effective in raising youth employment (see Chapter 3 for more details). Countries such as Italy and Denmark raised their retirement ages by two years for both men and women between 2002 and 2010.

A FOUNDATION FOR GROWTH

For the three thrusts of the refined growth strategy to work, CEE governments will also need to consider ways to build a strong foundation for growth. This would include the following approaches:

- **Investments in infrastructure.** To support an accelerated rate of GDP growth, the CEE economies would need to raise annual investment in infrastructure by about 24 percent, to around 5 percent of GDP.
- **Urbanisation.** CEE countries are less urbanised than the Western European economies. Higher levels of urbanisation are associated with higher wealth. CEE nations can remove barriers to migration and urban development.
- **Regulation and institution building.** CEE economies can improve legal protections and streamline processes needed to start and run businesses to make launching or expanding businesses easier and more attractive for both foreign investors and domestic entrepreneurs. In addition to adopting reforms, CEE nations can strengthen government institutions by building capabilities and establishing clear, measurable, and enforceable goals.
- **Education and skills.** While CEE economies are able to fill the needs of high-skill employers today, investments in education and training can help CEE workers take on higher-value-added work to raise productivity and wages.
- **R&D and innovation.** On average, CEE economies invest less than 1 percent of GDP in research and development, compared with 2.1 percent in the EU-15 countries. To rise up the value chain in manufacturing and services, they will need to raise R&D spending, build out their industry clusters, and encourage innovative entrepreneurs.

Combined, these initiatives could do a great deal to support growth. If the target is to get back to the 4.6 percent annual growth rates of the 2000–2008 period, the investment rate would need to increase from 24.9 to 26 percent, which was the level in the Czech Republic in the pre-crisis period. Labour force participation would need to grow from 65 percent to the EU-15 level of 72 percent to meet labour demand. We also assume that unemployment would return to the pre-crisis rate of 6.5 percent. The aspirational goal would also require multifactor productivity growth to rise from an average of 2.6 percent per year to 2.9 percent. This is above the CEE pre-crisis average but has been achieved in Slovakia.

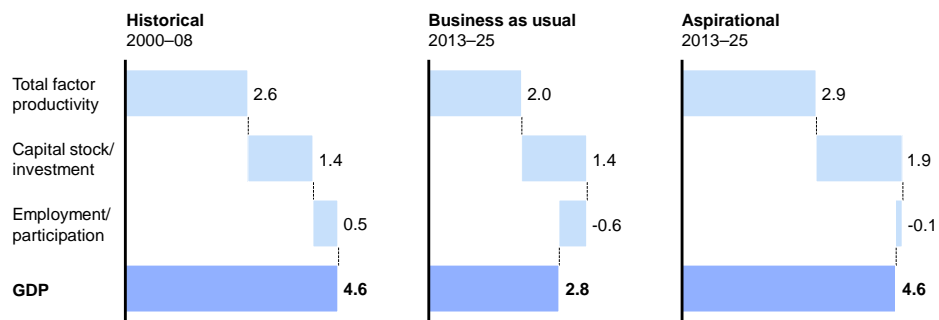
The business-as-usual alternative would be unattractive. Investment rates would remain at pre-crisis levels, multifactor productivity growth would hew to the long-term trend, and ageing and stagnant labour force participation rates would depress workforce growth and inhibit GDP expansion. In this scenario, GDP growth rates would average only 2.8 percent through 2025, we estimate (Exhibit 12).

Exhibit 12

In an “aspirational” scenario, CEE economies can return to pre-crisis GDP growth

Growth rates

%



NOTE: Numbers may not sum due to rounding.

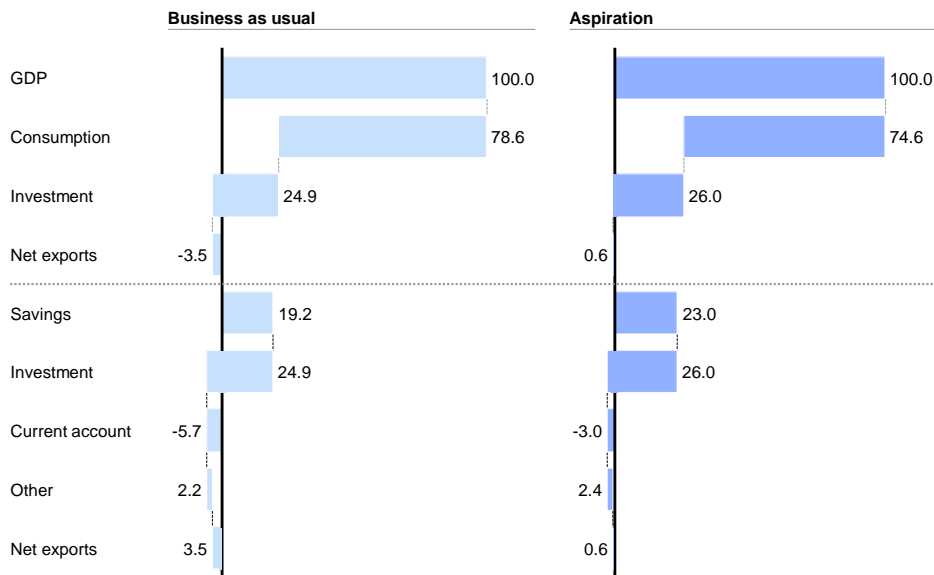
SOURCE: McKinsey Global Growth Model; McKinsey Global Institute analysis

The result of the new model would be to reduce consumption as a share of GDP and raise investment and savings to create a more sustainable basis for growth, with a narrower and more sustainable current account deficit and FDI inflows approaching historic levels. For the aspirational scenario, we set the current account deficit to an arguably sustainable 3 percent and set the annual investment rate to 26 percent. Savings would need to rise by almost 4 percentage points of GDP and net exports by almost 3 percentage points compared with pre-crisis averages (Exhibit 13). It will take a great deal of effort by policy makers and the private sector to build the momentum that the new model can create. In the following pages, we describe in detail the three major strategies for implementing the new growth model and discuss the opportunities and challenges involved.

Exhibit 13

The new model requires a significant shift towards investment, exports, and domestic savings and a shift away from consumption

% of GDP, 2013–25

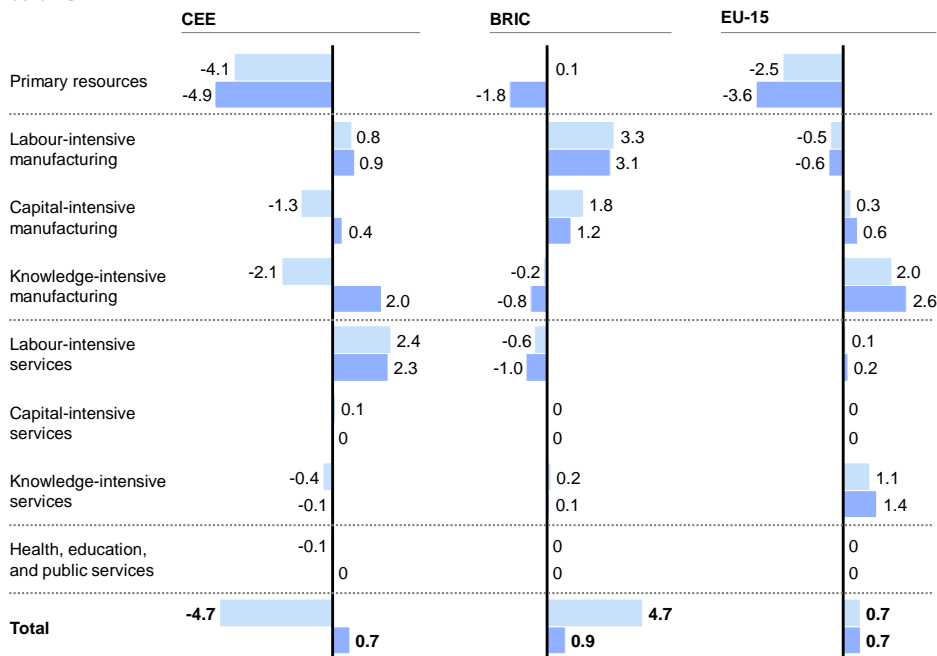


NOTE: Numbers may not sum due to rounding.
SOURCE: McKinsey Global Growth Model; McKinsey Global Institute analysis

EXPANDING EXPORTS AND FOCUSING ON HIGHER-VALUE-ADDED PRODUCTS AND SERVICES

The future of Central and Eastern European economies will continue to depend on strong exports. We see opportunities to expand exports to a wider range of markets and increase the share of high-value-added exports. Advanced manufacturing, outsourcing and offshoring services, and agriculture and food processing all offer good opportunities to raise both the quality and quantity of exports from the region. The region begins with a fairly mature trade profile, with surpluses in knowledge-intensive goods such as automotive (Exhibit 14).

In both goods and services, CEE exports are heavily weighted towards Western Europe. From 2005 to 2010, exports from CEE economies grew by more than 10 percent annually, and 60 percent went to EU-15 markets. Some 80 percent of exports are goods. Service exports are concentrated in travel and transportation, which accounted for 59 percent of services exports in 2010; 57 percent of these services were purchased by Western European businesses and consumers. The next largest categories were other business services and computer and information services, which includes the fast-growing outsourcing and offshoring business. We see opportunities for CEE nations, individually and on a regional basis, to build on their successes in exports over the coming decade. This will involve efforts in each of the export areas, as well as overarching policies to create the best environment for exporters.

Exhibit 14**The CEE area has a more mature trade profile than BRIC economies**Net exports
% of GDP2007
2011

NOTE: Noncategorised and confidential trade is not included in the analysis. Numbers may not sum due to rounding.
SOURCE: World Integrated Trade Solution; International Trade Center; McKinsey Global Institute analysis

Moving up the value chain in advanced manufacturing

The global manufacturing sector is entering a new era of growth, driven by the rise of large consuming classes in developing economies and a series of innovations in materials and manufacturing technologies.¹⁷ Based on their current capabilities and the quality of their workforce, the manufacturing industries in the CEE economies have an opportunity to take advantage of these trends and secure a larger share of global manufacturing volume in the coming decades, particularly in advanced manufacturing, which includes automotive, aerospace, electronics, and medical products. The CEE economies also face strong competition from China and other Asian nations that are determined to rise up the manufacturing value chain and are developing capabilities in R&D and innovation.

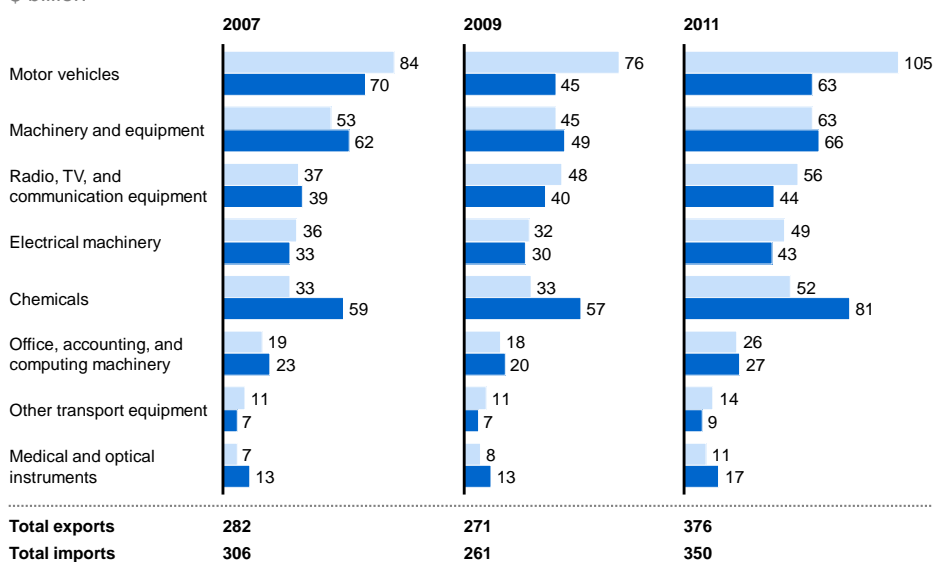
Knowledge-intensive manufacturing in CEE economies has been on the rise. In 2007, the region was running a deficit of 2.1 percent of GDP in knowledge-intensive goods. By 2011, that had turned into a surplus equivalent to 2.0 percent of GDP. The CEE region has moved from a net importer of knowledge-intensive goods to a net exporter (Exhibit 15). Imports grew by 3 percent a year from 2007 to 2011, reaching \$350 billion (€252 billion), while knowledge-intensive exports grew by 7 percent annually to \$376 billion (€270 billion).

17 For more on these trends, see *Manufacturing the future: The next era of global growth and innovation*, McKinsey Global Institute, November 2012.

Exhibit 15

In knowledge-intensive manufacturing, the CEE region has moved from net importer to net exporter

\$ billion



NOTE: Noncategorised and confidential trade is not included in the analysis. Numbers may not sum due to rounding.
SOURCE: World Integrated Trade Solution; International Trade Center; McKinsey Global Institute analysis

The CEE economies have established a strong position in automotive parts and automotive assembly. The area is geographically and culturally close to the Western European market. It also offers a supply of high-skill talent, has numerous research universities, and maintains relatively low labour costs. This has made the area attractive for production of intermediate parts and assembly. About 65 percent of automotive assembly and automotive parts production capacity is owned by Western European players such as Volkswagen and Bosch, and two-thirds of autos and auto parts from CEE factories are exported to Western Europe.¹⁸ The CEE region is also attractive to North American and Asian players. Kia's only European manufacturing plant, in Žilina, Slovakia, began operating in 2006, and Hyundai launched its first European automotive plant in the Czech Republic village of Nošovice in 2008.

The CEE region is now home to industry clusters in industries critical for further development of knowledge-intensive manufacturing, including automotive, aerospace, and others. Clusters of manufacturers, suppliers, research institutions, universities, vocational schools, and other players in the value chain help support a rapid pace of innovation and allow for tight coordination all along the supply chain. However, the evolution of automotive, electronics, and aerospace centres in CEE countries is still far behind the levels of clusters in the United States, the EU-15, and the BRIC countries, according to the World Economic Forum.¹⁹

The automotive clusters in Poland and the Czech Republic are the sixth and seventh most advanced in greater Europe, behind clusters in Germany, France, Italy, the United Kingdom, and Spain; Polish auto clusters employ 7 percent of

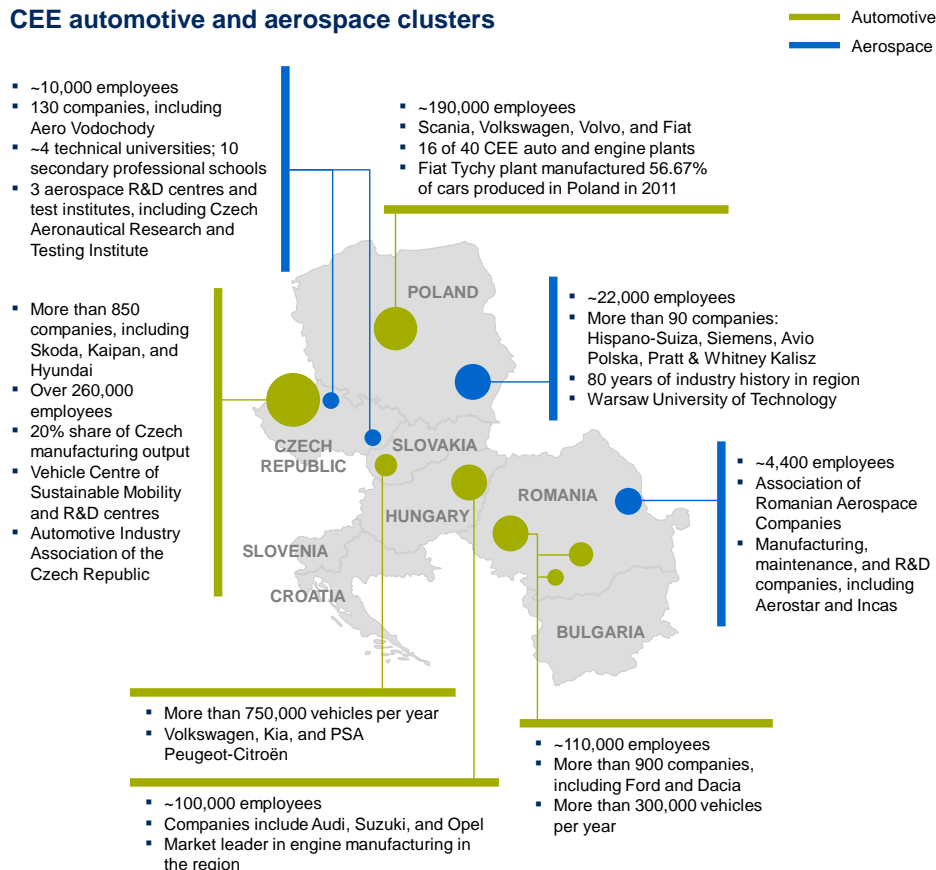
18 UNCTADstat; IHS Global Insight; Eurostat.

19 On the World Economic Forum scale (of 1 to 7, with 7 signifying the highest level of development, as determined in an executive opinion survey), CEE nations average 3.5, compared with 5.0 for the United States and 4.7 for both the EU-15 and the BRICs. *Global competitiveness report 2012–2013*, World Economic Forum, 2012.

all autoworkers in Greater Europe, and the Czech clusters employ 6 percent.²⁰ The Czech automotive sector has three major automotive clusters, with over 850 companies and 260,000 employees.²¹ Czech automotive clusters have close connections with a number of universities, such as the Czech Technical University and the Technical University of Ostrava. The Pannon Automotive Cluster (PANAC) in Hungary, which was established in 2000, today comprises almost 100 companies, including assemblers Audi, Suzuki and Opel, and employs about 100,000 workers (Exhibit 16).²²

Exhibit 16

CEE automotive and aerospace clusters



SOURCE: EU Cluster Observatory; Polska Agencja Informacji i Inwestycji Zagranicznych (Polish Information and Foreign Investment Agency); Hungarian Investment and Trade Agency; CzechInvest; Aviation Valley; McKinsey Global Institute analysis

In electronics, there is an industry cluster in Romania's Technological and Industrial Park Timișoara, which opened in 2004 and now employs approximately 40,000 workers. Located near the University of Timișoara, it includes major companies such as Siemens and Alcatel Lucent.²³ Electronics is the second-largest industry in Hungary, accounting for 22 percent of manufacturing output. Hungary is a major centre of mobile communications and information security technology and related research. Industry clusters connect with Budapest University of Technology and Economics and the University of Veszprem.

20 Cluster Observatory; Centre for Strategy and Competitiveness, Stockholm School of Economics.

21 CzechInvest—Investment and Business Development Agency.

22 Pannon Automotive Cluster, www.autocluster.hu.

23 Technological and Industrial Park Timișoara, www.pitt.ro/en/.

Dolina Lotnicza (Aviation Valley) in southeastern Poland is home to more than 90 companies, including Siemens, Pratt & Whitney Kalisz, and Avio Polska. Its 22,000 workers account for 4 percent of aerospace employment in Greater Europe. Smaller aerospace clusters exist in the Czech Republic, with about 10,000 employees, and Romania, with about 4,400.²⁴

To build on this growth in knowledge-intensive manufacturing, CEE companies and governments will need to invest more in R&D and continue to cultivate a high-skill labour force. These businesses also require constant investments in innovation. Knowledge-intensive manufacturing is increasingly automated, requiring a relatively small number of high-skill workers who can program and maintain computer-controlled equipment. In addition, knowledge-intensive products are increasingly high tech; much of the development work in automotive now involves electronics rather than mechanics.

Climbing the value chain in knowledge-intensive manufacturing should be a priority for CEE economies. With growing competition from other developing economies, it will become increasingly challenging to compete on labour costs alone. While CEE factories now account for 17 percent of all cars produced in Greater Europe (up from 7 percent in 2000), they still function largely as centres for sourcing or manufacturing of individual parts. For example, only a few companies carry out engine production in the CEE region. Developing economies in Asia are already shifting into higher-value-added activities, and CEE economies will need to keep up in order not to lose momentum.

It is not that the CEE labour force is incapable of higher-value-added work. Today, Mercedes-Benz produces engines for its A and B series cars in Kecskemét, Hungary, and has cited the high quality of labour and professional services in the area as important factors for choosing that location. The Hyundai Group, as noted, operates plants in Nošovice, Czech Republic (Hyundai), and Žilina, Slovakia (Kia), that produce both engines and transmissions. However, the supply of skilled workers is not growing as quickly as may be needed. The number of engineers and technical professionals in the EU-15 rose steadily from 2000 to 2007 and the number of skilled manual workers such as mechanics declined. By contrast, in the CEE region and other new EU states, the number of semiskilled workers grew by 19 percent annually, the number of skilled manual workers grew by 5 percent annually, and the ranks of technical professionals grew by 11 percent a year.²⁵

To remain competitive as other developing regions try to gain share in advanced manufacturing, CEE economies will need to make larger investments in R&D and move up industry value chains to produce higher-value-added products and to participate in industry innovation. Governments in the region can play a pivotal role by helping to fund R&D and innovation, such as by offering R&D grants and tax incentives and acting as the initial purchasers of new innovations. Governments can also help in developing larger-scale clusters, investing in technical education, improving the link between academia and business, and encouraging entrepreneurship. Finally, to continue attracting FDI in knowledge-intensive industries, CEE policy makers should continue liberalising their markets and reducing regulatory complexity.

24 www.dolinalotnicza.pl.

25 EU Labour Force Survey; the term “new member states” here also includes Cyprus, Estonia, Latvia, Lithuania, and Malta.

Taking O&O to the next level

Outsourcing and offshoring began in the CEE region in the 1990s, when companies from outside the region began looking for cheaper and more efficient ways to handle their day-to-day information technology (IT) and back-office operations. Globally, the O&O industry is expected to grow by 10 percent annually through 2020, when the total addressable market is expected to reach \$1.6 trillion (€1.3 trillion) annually.²⁶ The largest centres for O&O work remain in Asia (India, the Philippines, and China), but in recent years, the industry has been growing faster in Central and Eastern Europe.

Outsourcing and offshoring revenue in the CEE region was estimated at \$9 billion (€7 billion) in 2010, accounting for about 8 percent of total services exports. Business process outsourcing, including finance and accounting, human resources, and call centers, made up almost 60 percent of outsourcing jobs in 2011 and was responsible for much of the growth. O&O employment in the CEE region has been growing three times as fast as in India, expanding by 31 percent in 2012 to the equivalent of 292,000 full-time employees (Exhibit 17).²⁷ Even now, however, the industry is just one-eighth the size of India's.

The largest share of CEE outsourcing and offshoring activity is business process work, which employs 165,000 full-time equivalents (FTEs) and grew by 30 percent in 2012. This is followed by information technology, with 77,000 FTEs and 17 percent annual growth. R&D and engineering services is the fastest-growing category, with 50,000 FTEs and 2012 growth of 65 percent.²⁸ Poland has the largest industry and Romania has been growing rapidly, followed by the Czech Republic and Hungary.²⁹

The O&O industry could have strong growth potential in the CEE region in the coming years. According to a survey of global companies that plan to set up new outsourcing and offshoring operations, even as cost remains the most important factor in selecting O&O sites, there is growing concern about the limitations of major Asian offshoring centres. They have large time-zone differences with Europe and the United States, cultural differences, and language issues, such as poor English and lack of fluency in the major European languages (German, French, and Spanish).³⁰ The survey also shows that access to talent pools with good language skills and cultural proximity has become a key factor in choosing offshoring locations (Exhibit 18).

26 IHS Global Insight; Gartner 2009; McKinsey assessment 2011/2012.

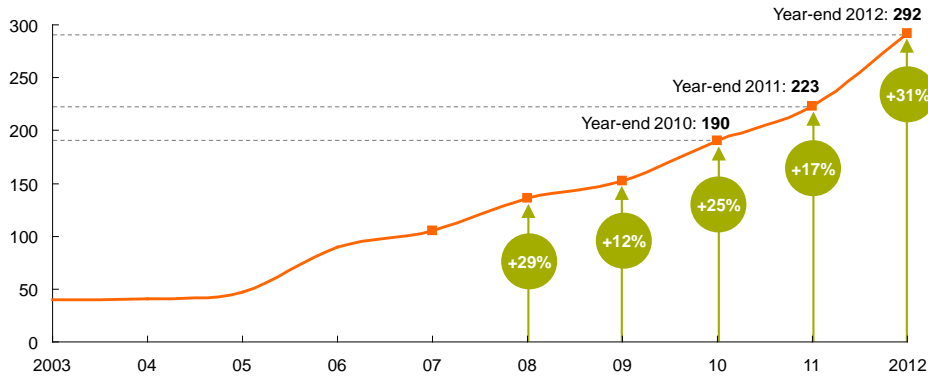
27 McKinsey O&O Conference; Eastern European Services and Technology Committee (EESTCom); McKinsey Global Institute analysis.

28 Gartner; EESTCom; China Sourcing; National Association of Software and Services Companies (NASSCOM); Business Processing Association of Philippines (BPAP); Brazilian Association of Information Technology and Communication Companies (BRASSCOM); CEE here excludes Croatia and Slovenia.

29 McKinsey O&O conference; EESTCom research.

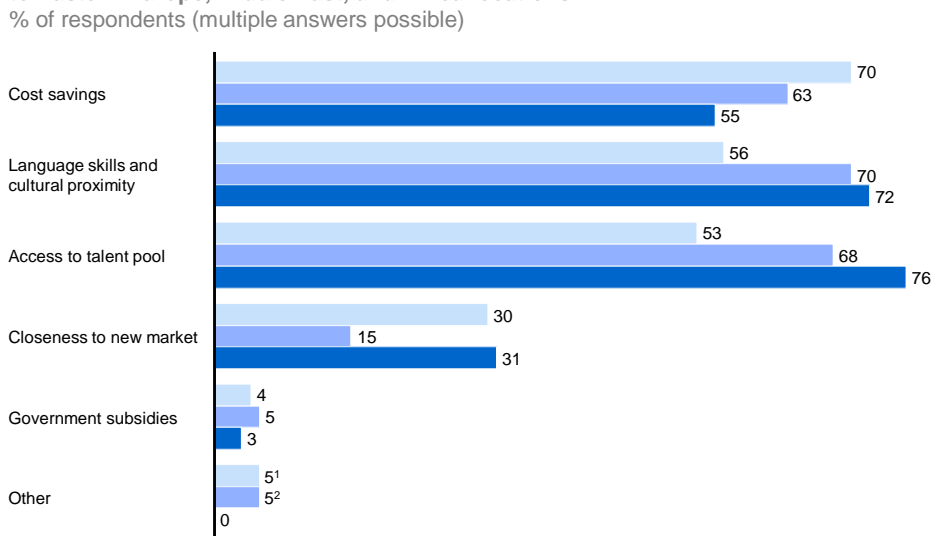
30 EESTCom analysis 2010–2012.

Exhibit 17
Outsourcing and offshoring job growth in the CEE area has rebounded
O&O jobs in Eastern Europe
Thousand FTE, cumulative



SOURCE: Eastern European Services and Technology Committee analysis; McKinsey Business Technology Office; McKinsey Global Institute analysis

Exhibit 18
Access to talent pools, language skills, and cultural proximity are rising as top criteria for choosing outsourcing locations
What is the most important reason for outsourcing and offshoring to Eastern Europe, Middle East, and Africa locations?
% of respondents (multiple answers possible)



1 Flexibility, higher quality.
2 Labour laws, focus on core competencies, reduction of complexity.

SOURCE: Eastern European Services and Technologies Committee analysis; McKinsey Global Institute analysis

An increasing number of companies also favour “near-shoring” new operations to locations that are in similar time zones and have fewer cultural and language barriers (see Box 3, “UniCredit’s model for near-shoring”). Citibank, Oracle, GE, Unisys, Yahoo, and other US companies have been adding centres in Latin America. Western European and Scandinavian companies such as Bayer and Ikea have opened centres in Central and Eastern Europe.³¹

31 McKinsey analysis; McKinsey Purchasing & Supply Management Practice.

Box 3. UniCredit's model for near-shoring¹

In 2005, UniCredit Produzioni Accentrate became one of the first Western European banks to near-shore operations in Central and Eastern Europe. Since then it has placed a significant part of its mature markets' back-office work in the region.

The shift began with Italian bank back-office operations, including payments, core banking, and credit cards—about 250 FTEs in the first wave were hired in Bucharest, Romania. In subsequent waves, the number of FTEs has more than doubled both in Bucharest and Iasi (Romania), as other operations such as credit and invoice management were added and payments was enlarged. Later on, additional resources were added in Bucharest and Szczecin (Poland) for core banking, payments, and lending operations for UniCredit's German and Austrian banks. UniCredit Business Integrated Solutions was launched in 2012 and includes the back-office activities of UniCredit Produzioni

Accentrate. The company now regards its CEE back-office as an integral part of its internal service backbone.

It took several evolutionary steps to get to this integrated model. Initially, the company piloted less complex and language-dependent activities and subsequently invested in language training in order to take on work such as help desk services for Italian branches and Austrian payments operations in Bucharest. As it moved into more complex operations in Central and Eastern Europe, it initially used expatriate managers from the process-owning countries (for example, Italy, Austria), but started in parallel to invest in the growth and training of local managers. The CEE component of UniCredit Business Integrated Solutions has evolved into a back-office hub with full responsibility for the operations of several core products across UniCredit markets.

1 UniCredit Business Integrated Solutions.

The CEE outsourcing and offshoring industry can benefit from near-shoring and is also well positioned to fill demand for higher-value-added services, as the recent growth in outsourced R&D and engineering services work in the region indicates. Even now, Central and Eastern Europe O&O companies typically compete on skills and not on scale, offering higher-value-added services than competitors in other countries that focus more on high-volume transactional processes. Globally, there is growing demand for more sophisticated services such as R&D and big data analytics. CEE outsourcing centres may also be able to compete for relatively untapped outsourcing markets such as public-sector services, health, media, and utilities. There also is growing demand from small and medium-sized enterprises (SMEs), which are expected to drive 40 percent of incremental growth through 2020.³²

Another option for CEE outsourcing and offshoring companies is to move up the value chain by positioning themselves as the coordinators of a broad network of outsourcing and offshoring services for clients. The CEE centres would become hubs that take on high-skill activities at their locations and manage lower-level operations in places with lower labour costs. There are several examples of global companies, Capgemini Business Services and Hewlett-Packard among them, that have used their CEE centres this way. CEE outsourcing centres can also use their language and cultural advantages to assume the client-facing role in comprehensive outsourcing operations.

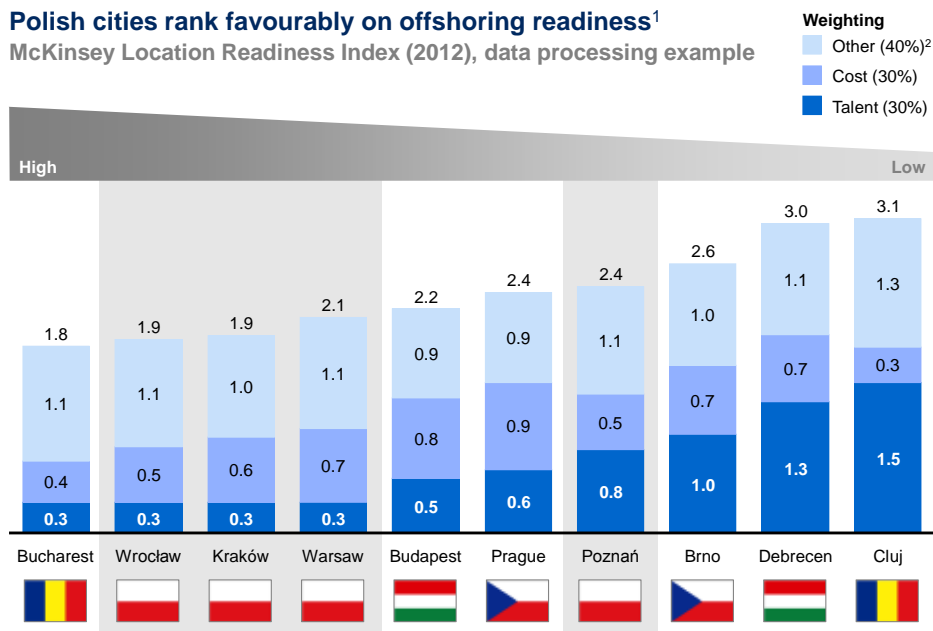
32 IHS Global Insight; Gartner 2009; McKinsey assessment 2011/2012; growth potential assessed for the period between 2008 and 2012.

In addition to investing in their own capabilities, O&O industries can use policy supports as they expand and evolve. Poland, which employs as many workers in the sector as the other CEE countries combined, could serve as a model for how nations can promote O&O industries and position themselves to capture industry growth (Exhibit 19).³³ Poland's O&O sector has enjoyed great support from city and national governments, including help in securing EU funds for new investors in the CEE O&O sector, and providing grants for creating new workplaces and hiring the unemployed. It also benefits from Poland's size and resources. The Polish educational system is closer in quality to EU-15 schools than those of other nations in the region, and its large population provides a deep talent pool. Poland has also weathered the crisis better than countries such as Hungary, and it still has significantly lower O&O wage rates than the Czech Republic, Slovakia, and Hungary. As a result, it continues to attract new business—winning 40 out of 46 large outsourcing deals in the region in 2012.³⁴

Exhibit 19

Polish cities rank favourably on offshoring readiness¹

McKinsey Location Readiness Index (2012), data processing example



¹ Location ranking: 1 = extremely favourable, 5 = not ready.

² Other includes infrastructure, environment, risk, and market maturity, with equal shares of 10% each.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Location Readiness Index, 2012; McKinsey Global Institute analysis

In the CEE region, many countries are in a position to emulate Poland's O&O success. Bulgaria and Romania are close to Poland in the quality of talent; they also have significant cost advantages over Western Europe and share cultural and geographic proximity to major European customers. Bucharest, for instance, ranks well on McKinsey's offshoring readiness scale, which evaluates cost,

³³ McKinsey O&O conference; EESTCom research; McKinsey Global Institute analysis. Croatia and Slovenia excluded due to unavailability of data.

³⁴ McKinsey O&O conference; EESTCom research; McKinsey Global Institute analysis. Large outsourcing deals are deals with more than 100 FTEs.

talent, infrastructure, environment, risk, and market maturity. It is also the most affordable CEE capital city.³⁵

To date, the development of the O&O sector in the CEE economies has been driven mostly by foreign investors, who are attracted by low wage rates and proximity to Western Europe. Creating a strong domestic industry in CEE economies would help the O&O industry move to the next level. One reason India has succeeded so well in O&O has been the presence of a strong domestic industry in which many players have collaborated on efforts to improve industry capabilities. In India, the National Association of Software and Services Companies (NASSCOM), a trade association, has helped to build up information technology and business processes outsourcing services, promoted best practices, fostered international partnerships, and invested in workforce development.

To enable CEE countries to move up in the O&O market, government support is also important. Industry and universities can work together to expand the talent pool for the offshoring industry, for instance by tailoring curricula or promoting O&O careers to university graduates. Governments can also help guide development to new areas from established centres that are in danger of overheating because of talent shortages. To remain competitive, existing centres may also need to adjust their business models. They can push for higher productivity through automation and “lean” process improvements, which can reduce unit costs by up to 40 percent.³⁶

Opportunities in agriculture and food processing

Agriculture made up 5 percent of GDP across the CEE region in 2011, varying from 2 percent in the Czech Republic to 13 percent in Romania, compared with less than 2 percent in the EU-15. The region is already a significant food exporter: while total agricultural output of CEE economies has held steady at about 2 percent of the global total for the past decade, CEE farmers were responsible for 4 percent of global exports in 2012, twice the level of a decade earlier. After running net food deficits from 1995 to 2009, the region became a net exporter of food products from 2010 to 2012, with about half of the trade flowing to the EU-15. The surplus is being driven by exports of cereals, dairy products, and tobacco (Exhibit 20).

However, agricultural productivity in Central and Eastern Europe is one-third of the EU-15 level (Exhibit 21). Agriculture accounts for 14 percent of total employment in CEE countries, compared with 3 percent in the EU-15, reflecting the large amount of subsistence agriculture and a lack of modernisation. Investment in farm equipment in CEE countries remains low—there are half as many tractors per 100 square kilometres of farmland as in Western Europe.

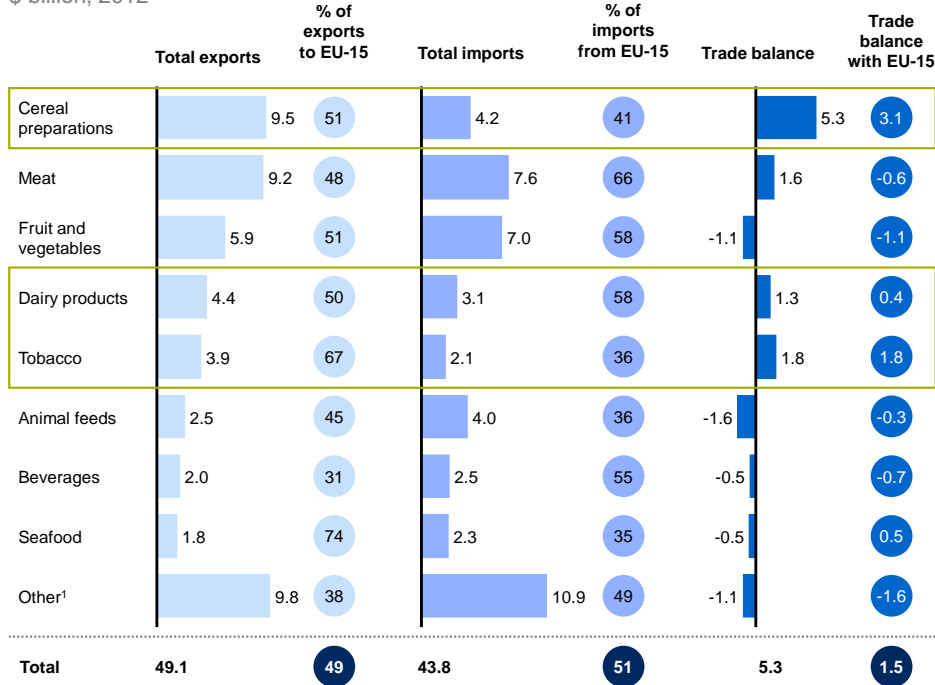
35 McKinsey Location Readiness index 2012. Locations were ranked on cost, talent, infrastructure, environment, risk, and market maturity. Sources: Economist Intelligence Unit, World Competitiveness Yearbook, World Bank, interviews with external personnel, interviews with local McKinsey office personnel, O&O expert interviews, McKinsey Practice databases, local research, and benchmarks from O&O and Service Operations Practice.

36 McKinsey P360 benchmarking; banking captive case example, cost per transaction.

Exhibit 20

The CEE region already is a net exporter of food to the EU-15, due to trade surpluses in cereals, tobacco, and dairy products

\$ billion, 2012

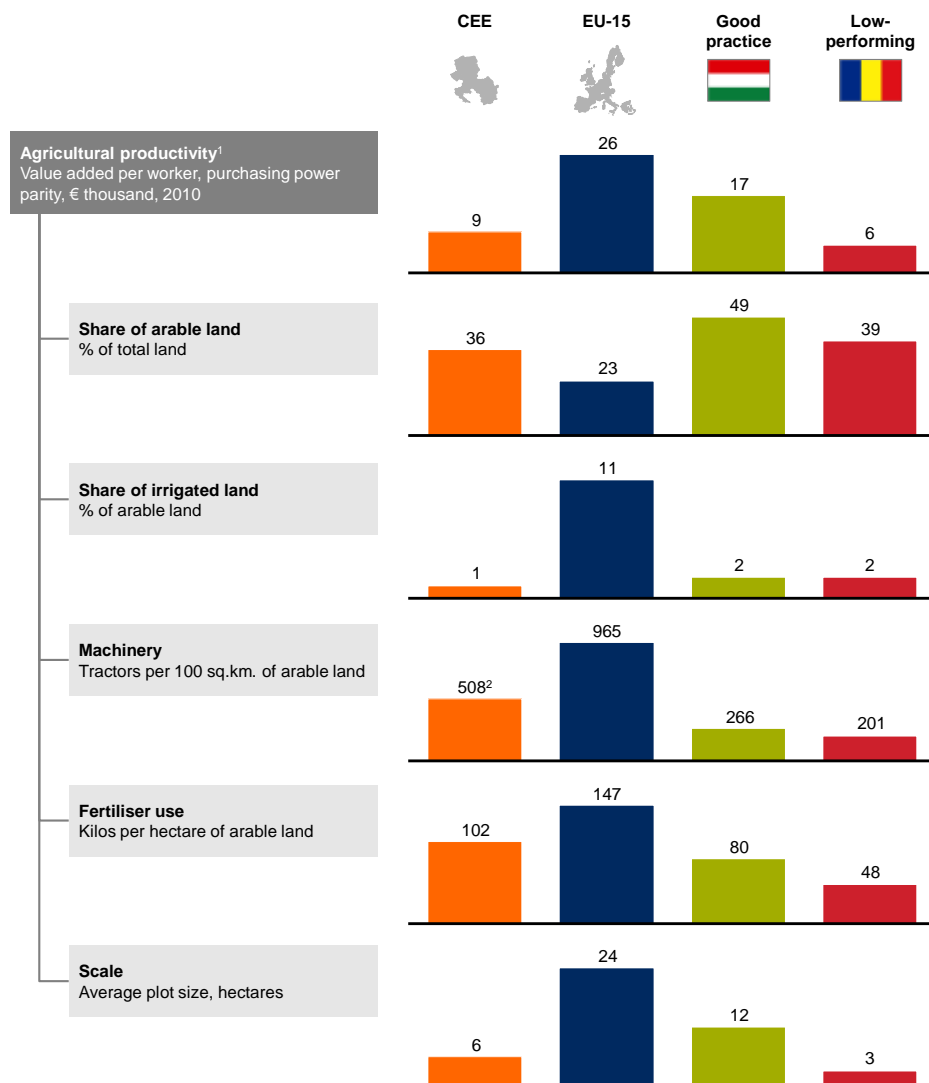


¹ Including sugar, honey, coffee, tea, cocoa, spices, and miscellaneous edible products and preparations.
NOTE: Numbers may not sum due to rounding.
SOURCE: UNCTADstat; McKinsey Global Institute analysis

Another issue for CEE agricultural productivity is scale: the average plot size is only 6 hectares, about one-quarter the size of an EU farm. Productivity per plot, as measured by yield, is also low. The CEE region has on average half the maize yield of Germany, one of the best performers in the EU-15. Yields also vary widely across the region: there is a 200 to 300 percent difference between yields of the best- and worst-performing countries in crops such as maize, wheat, and sunflower seeds.

Nevertheless, the region has good growth potential in agriculture. It has more arable land than in the West (36 percent of CEE land is arable, vs. 23 percent in the EU-15), and there is more land to develop: in Poland and Romania, for instance, 14 to 15 percent of arable land is uncultivated. This starting point provides the CEE economies with an opportunity to exploit an underutilised source of growth and use its comparative advantages, including available land, good climate and soil, and access to markets.

CEE economies can also move up in food processing, taking advantage of proximity to Western Europe and low labour rates to become a regional processing hub. There is a particular opportunity in private-label processed foods, a rapidly growing category for Western European retailers. In Germany, Spain, and the United Kingdom, private-label foods account for a third of the market or more, and in many other countries, private-label goods are gaining share. In the German grocery chains Lidl and Aldi, private labels accounted for the majority of total sales in 2012.

Exhibit 21**Low investment in equipment and small scale limit farm productivity**

1 Excluding Bulgaria and Croatia.

2 CEE average is skewed by high tractor penetration in Poland and Slovenia.

SOURCE: World Bank; World Development Indicators database; Eurostat; McKinsey Global Institute analysis

Proximity to markets is a key advantage. Most of the CEE region is within a 1,000-kilometre radius of more than 170 million consumers, and the furthest CEE countries—Romania and Bulgaria—are less than 2,000 kilometres from major Western European markets (Exhibit 22). Most of the distance can be covered by rail or motorway, and shipping costs are moderate: generally less than €800 per ton from Poland to Western European markets and €1,000 a ton or less from Romania and Bulgaria.³⁷ As members of the EU, the CEE nations have access to all European markets, providing a significant advantage over countries outside the trading bloc.

37 Value of the goods not accounted for.

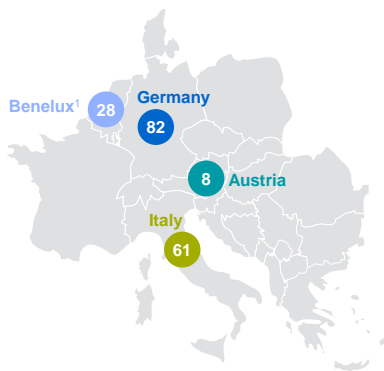
Labour costs in CEE nations average about a quarter of those in Western Europe, creating clear advantages for labour-intensive operations such as food processing. We estimate that the cost of sausages from Poland delivered for sale in Berlin is approximately 40 percent lower than for sausages made in Hamburg. Pasta is 10 percent cheaper, and processed cheese is 4 percent cheaper, we estimate (Exhibit 23). In most cases, savings in labour costs and other inputs, including raw materials and energy, outweigh higher transportation costs.

Exhibit 22

CEE farms are close enough to populous markets to make transportation time and cost acceptable

○ Country population (million)

- More than 170 million people within 1,000 km radius of large CEE countries
- In many cases costs <€800 per ton of freight



	Warsaw	Bucharest	Sofia	
Distance km (approximate)	Düsseldorf	1,100	2,000	1,900
	Stuttgart	1,200	1,700	1,600
	Brussels	1,300	2,200	2,000
	Vienna	700	1,100	1,000
	Milan	1,500	1,600	1,400
Cost per ton of freight € (approximate)	Düsseldorf	550	1,000	950
	Stuttgart	600	850	800
	Brussels	650	1,000	1,000
	Vienna	350	550	500
	Milan	800	800	750

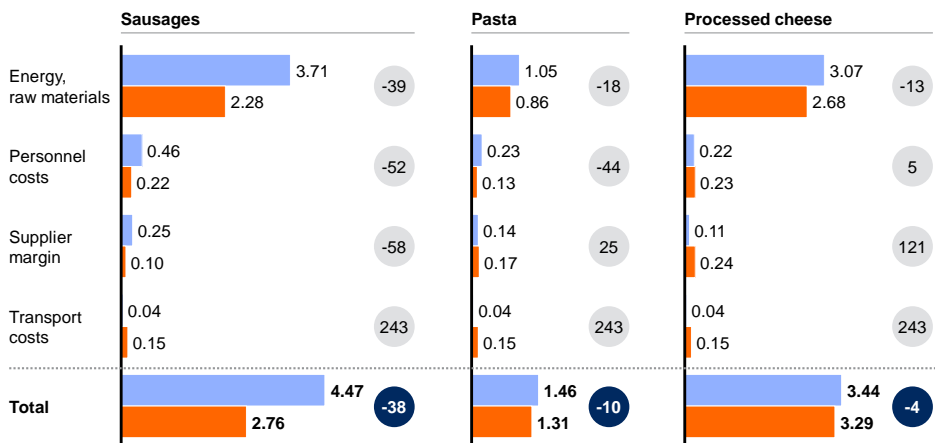
1 Benelux (Belgium, the Netherlands, and Luxembourg).
SOURCE: GlobalShippingCosts.com; ViaMichelin; McKinsey Global Institute analysis

Exhibit 23

Low labour and raw materials costs make processed food exports to Western Europe attractive

Production costs, 2011
€ per kilo

■ Germany
■ Poland
○ Cost difference (Poland vs. Germany)



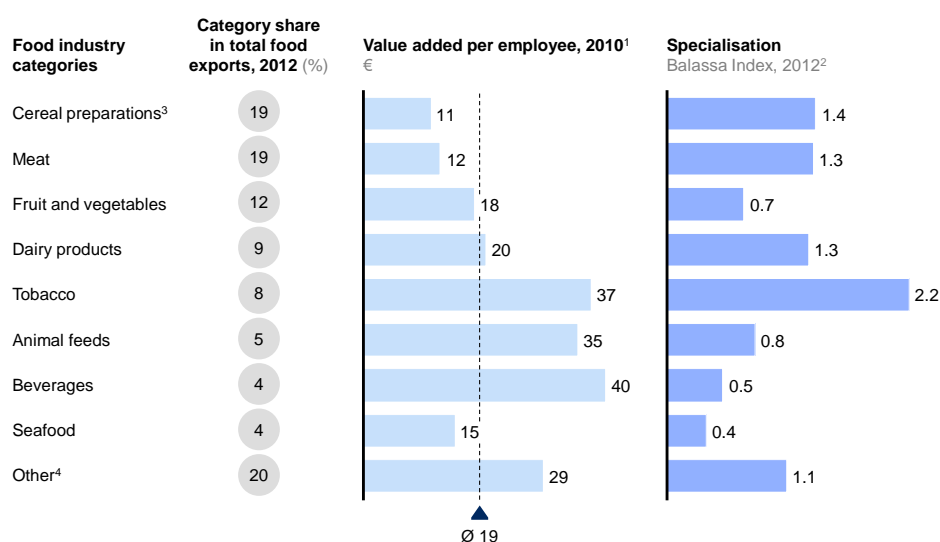
NOTE: Transport costs (by road) have been added on top of production costs. For Germany, data apply to the Hamburg-Berlin route; for Poland, Warsaw-Berlin. Weight of manufacturing cost components data is for 2010. Numbers may not sum due to rounding.
SOURCE: Eurostat; GlobalShippingCosts.com; McKinsey Global Institute analysis

These factors could position CEE nations to become leaders in the EU for processing intermediate goods such as flour and final products such as cheese, pasta, and processed vegetables. Currently, around 77 percent of agricultural exports from the CEE region are either processed or semiprocessed, with commodities making up the remainder. This is roughly five percentage points lower than for EU-15 food exports.

CEE economies have an immediate opportunity to move into higher-value-added food exports. Current exports are dominated by cereal-based products and meat, where the region has a competitive advantage, but for which the value added per employee is low (around two-thirds of the average for the entire food manufacturing industry). Dairy products, by contrast, have an above-average value added, and CEE economies have good capabilities in this area. Longer term, the food processing segment could raise productivity by specialising in high-value-added products, such as soft drinks and alcoholic beverages, where CEE is not now competitive (Exhibit 24).

Exhibit 24

CEE food exports could be focused on products with higher value added



1 At factor costs.

2 The Balassa Index measures the degree of specialisation of a region's exports. If value is >1, it signifies that the region's industry has a competitive advantage in the world.

3 Includes grain mill products; starches and starch products; and bakery and farinaceous products.

4 Includes sugar, honey, coffee, tea, cocoa, spices, and miscellaneous edible products and preparations.

SOURCE: UNCTADstat; Eurostat; Comtrade; McKinsey Global Institute analysis

The CEE region has the geographic location and the resources to become a European food hub, similar to hubs in other parts of the world (Exhibit 25). This includes access to raw materials, access to big markets, R&D support, and logistics infrastructure. However, while the region has more than a dozen agricultural research universities, with programs in such critical areas as seed genetics, post-harvest technologies, and food security, there is room for improvement in overall R&D activity. In Israel, for example, the government in the 1970s created the Agricultural Research Organisation under the Agriculture Ministry to help plan and build infrastructure for agricultural R&D. The government also provided significant investment for improving agricultural production and processing technologies. The efforts helped improve the country's agricultural

productivity, while enabling Israel to become a leader in technologies such as desert agriculture. Additional improvements in the CEE region’s infrastructure would also be needed to support a major regional food hub.

Exhibit 25

Examples of six types of food hubs

■ Physical food hub

	Key activities	Examples
Supply chain and logistics	<ul style="list-style-type: none"> Supply chain orchestration Trans-shipment of food products, handling Storage 	Dubai Flower Centre is one of the few “perishable goods” hubs globally
Processing and conditioning	<ul style="list-style-type: none"> Conditioning and packaging Primary processing, such as cereal milling and filleting of fish Secondary processing (e.g., ready-to-eat products) 	Boulogne-sur-Mer, France, houses more than 200 companies processing 300,000 tonnes of fish products from 30 countries
Market-making/trading	<ul style="list-style-type: none"> Physical trading Financial trading Food financial products 	Fonterra (New Zealand dairy exporter) provides a platform for its suppliers to sell on globally
Food safety/certification	<ul style="list-style-type: none"> Quality control Certification 	The Norwegian Institute of Fisheries and Aquaculture’s TraceFish creates standards
Agrotech and R&D	<ul style="list-style-type: none"> R&D activities Agriculture/food technology; e.g., farm in a box, inputs, mechanisation technology 	Israel’s Agricultural Research Organisation (R&D; gene banks; technology promotion)
Food culture	<ul style="list-style-type: none"> Marketing Food-event management 	Hong Kong attempting to position itself as a wine hub

SOURCE: McKinsey Global Institute analysis

A modern agricultural and food processing sector requires economies of scale. Therefore, CEE countries can consider policies to encourage domestic and international investment to create larger plots and provide capital for modern equipment and techniques. Foreign investors, both food processors such as Nestlé, PepsiCo, and Olam and private-equity players, could bring funds into the region to accelerate the adoption of new technologies. They can also be partners in CEE agricultural R&D centres. In China, India, and several African nations, Nestlé’s investments have helped build milk producing industries and processing infrastructures.³⁸ In India, PepsiCo built direct contacts with farmers, committed to purchases of potatoes, and introduced modern farming practices, including modern irrigation techniques, to increase productivity. The company also created databases of crop varieties and hybrids, and helped to build the foundation for productive farming to ensure a quality supply.³⁹ In recent years, foreign investment in CEE agriculture and food processing has lagged behind investment in regions such as Asia and Africa, mainly due to the area’s relatively limited demand growth. However, as supply chains become more integrated with the EU’s single market, more demand can be served from the CEE region.

38 “Nestlé’s milk district model: Economic development for a value-added food chain and improved nutrition”, *HBS Case Collection*, November 2005 (revised March 2006).

39 “PepsiCo India to scale up collaborative farming model”, *Economic Times*, September 25, 2013.

CEE countries can help promote investment in agriculture and food processing, starting with loosening restrictions on land sales. Currently, many CEE countries impose limits on the sale of agricultural land to foreigners (typically requiring complex approvals). The Czech Republic eliminated all barriers to farm purchases in 2009, but many countries are still in the process of changing laws; Bulgaria, Hungary, and Romania plan for full liberalisation in 2014, and Poland is set to liberalise its rules in 2016. Foreign investors would not only bring funds into the region, but would also accelerate adoption of new technologies and form valuable partnerships for R&D centres.

CEE governments also can use more European Union agricultural policy tools and resources to address problems in land titling, improve farmer training, and introduce modern irrigation techniques. Funding for land registry reform is available through the EU's European Regional Development Fund. The European Agricultural Fund for Rural Development (EAFRD) finances advisory services as well as training. EAFRD also supports investments in modernisation, such as installation of irrigation equipment. However, many potential beneficiaries have not taken advantage of these programs due to complex application processes and limited resources for co-financing. Addressing these two barriers could increase the flow of these aid funds.

CEE agricultural institutions such as agronomic universities, public research institutes, and other government agencies can also support the food sector's growth by helping farmers modernise operations. This would include increased training, particularly on topics such as cultivation and irrigation techniques. To expand and upgrade the food processing industry and capture market opportunities in Western Europe, CEE policy makers will need to adopt EU and international safety and quality standards as well.

For Central and Eastern Europe to build on the success of its export industries, several supporting policy initiatives will likely be needed. Some would address specific export industry issues (for example, land investment in agribusiness), while others would be aimed at creating a better overall environment for all businesses, which we will discuss in Chapter 3.

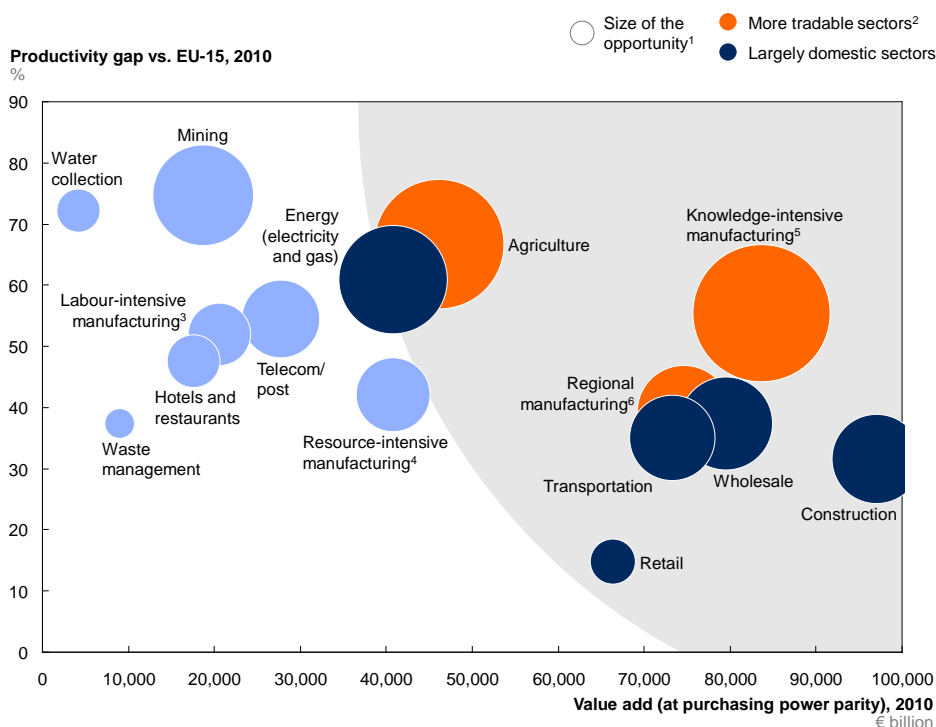
UNLEASHING GROWTH AND PRODUCTIVITY IN LAGGING DOMESTIC SECTORS

To close the productivity gap with Western Europe and help accelerate GDP growth, CEE economies can address the productivity issues in industries that have lagged behind in productivity improvements. The most obvious targets are construction, transportation, and retail industries (Exhibit 26).⁴⁰ In addition, CEE economies can do more to raise the productivity of network industries such as electric utilities, railways and postal services.

40 Due to the highly fragmented nature of the wholesale sector and the lack of reliable data, we do not analyse the wholesale sector.

Exhibit 26

The largest productivity opportunities are in some manufacturing sectors, agriculture, construction, transportation, energy, retail, and wholesale



1 Calculated as multiple of size of the gap and value add.

2 Agriculture and regional processing are traded within short distances; in this report, we group them as exports due to the opportunities we discuss.

3 Textiles, apparel, leather, furniture, jewellery, toys, and other.

4 Wood products, refined petroleum, coke, nuclear, pulp and paper, and mineral-based products.

5 Chemicals; motor vehicles, trailers, and parts; transport equipment; electrical machinery; computers and office machinery; semiconductors and electronics; and medical, precision, and optical.

6 Rubber and plastics; fabricated metal products; and food and beverage.

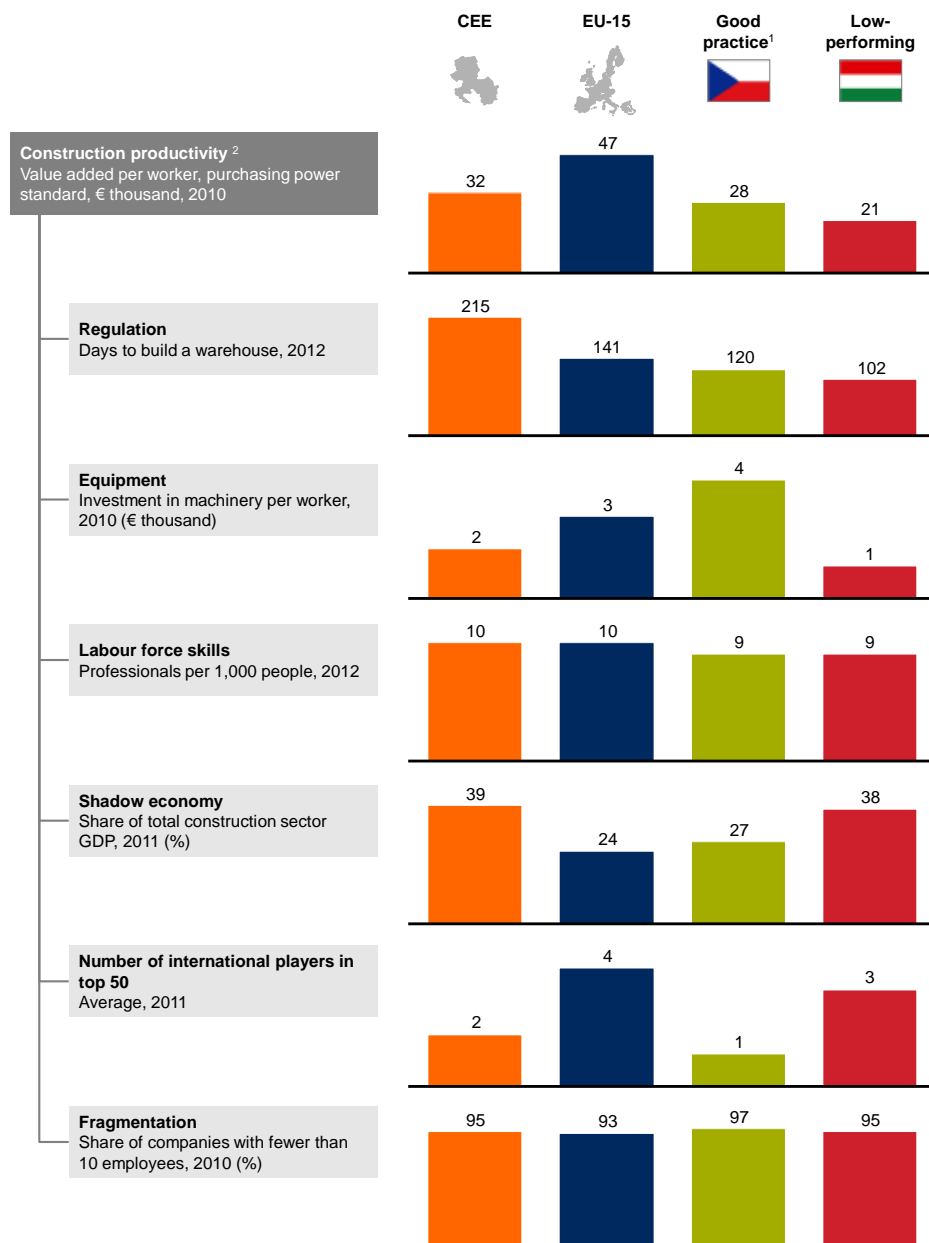
NOTE: Excludes Bulgaria and Croatia.

SOURCE: Eurostat; McKinsey Global Institute analysis

Raise construction industry productivity

Like the construction sector around the world, CEE construction industries are large employers. Across the region, construction accounts for 7 percent of GDP and 8 percent of employment. Construction industries grew rapidly between 2005 and 2008, rising from 6.6 percent of GDP to 8.2 percent. However, since the crisis, the sector's performance has deteriorated significantly, contracting by around 3 percent per year.

Overall, construction sector productivity across the CEE region is 31 percent lower than in the EU-15 economies, based on value added per worker in PPP terms. The lagging productivity is due to many factors, ranging from a lack of modern tools, skills, and materials to cumbersome regulations, a high degree of informality, and corruption (Exhibit 27). The industry is also highly fragmented, with many small players and self-employed construction workers, and a sizable share of companies operates outside of the formal economy. Projects tend to be scattered, small-plot developments with little standardisation and with inadequate economies of scale.

Exhibit 27**Low productivity in construction is driven by inefficient regulation, lower investment in machinery, and a large shadow economy**

1 The Czech Republic does not lead the region in productivity, but was chosen here because it exhibits best practices across a wide range of categories.

2 Excluding Bulgaria and Croatia.

SOURCE: Eurostat; *Dealing with construction permits*, www.doingbusiness.org, World Bank, 2013; local statistics; research papers; McKinsey Global Institute analysis

The CEE construction industry also stands out for its low ratings on regulatory issues and corruption; on these metrics, it is closer to emerging economies than to other European Union nations. On the World Bank Control of Corruption index, CEE nations scored 0.2 on a scale that ranges from -2.5 for extremely weak to 2.5 for strongest. The BRIC economies average -0.5, and the EU-15 averages 1.5. Corruption persists in CEE nations and can be addressed with additional regulations and enforcement.⁴¹

41 *Control of corruption index*, World Bank, 2011.

Address informality

As in other parts of the world, the high degree of informality in the construction sector inhibits both labour productivity and talent development. An estimated 39 percent of CEE construction output in 2011 was carried out with informal labour, compared with 24 percent in the EU-15.⁴² The heavy reliance on informal labour is a result of variability of demand, relatively high employment taxes, and a large share of self-employed construction workers—in the Czech Republic, 42 percent of construction workers are self-employed, for example. Even though the average CEE worker pays the same “tax wedge” as workers in the EU-15—42 percent of income—there are far more informal workers in the CEE countries than in Western Europe.⁴³ The higher rate can be attributed to factors such as lack of regulatory oversight and low tax compliance and enforcement. For employers, informal workers also provide flexibility to adjust overhead to seasonal demand.⁴⁴

Informality directly influences productivity across construction industries, because so many firms that rely on informal labour are subscale and poorly capitalised. Self-employed workers and small companies have no access to credit from financial institutions, severely limiting their ability to invest in mechanised equipment and operational improvements to raise productivity. Small firms operating outside the formal economy also lack legal protection, such as property rights or legal recourse in the event of contract disputes. Finally, more productive companies that operate in the formal economy have limited growth opportunities because competitors from the informal sector can beat their prices and skirt the law.

Increase scale and modernise

Only a handful of large companies exist in the CEE construction industry and have the resources to benefit from economies of scale and investment in productivity-improving techniques and tools.⁴⁵ Low barriers to entry—and exit—help perpetuate the fragmentation.⁴⁶ Some 95 percent of construction companies in CEE nations have ten or fewer employees, which is similar to the 93 percent share in the EU-15. In the EU-15, where there are some signs of consolidation in construction. There also is a pronounced productivity gap between large and small firms. Output per worker for enterprises with fewer than ten employees is \$53,000 (€38,000) per year, compared with \$86,000 (€62,000) for large enterprises with more than 250 employees.

42 Friedrich Schneider, “The shadow economy and shadow economy labour force: What do we (not) know?” *World Economics*, volume 12, number 4, November 2011. The informal sector comprises all productive economic activities that would generally be taxable were they reported to the authorities (excluding underground economic activities and informal household services and production).

43 OECD. “Tax wedge” is defined as the sum of personal income tax and employee plus employer social security contributions together with any payroll tax less cash transfers, expressed as a percentage of labour costs.

44 For more on the benefits of construction industry consolidation, see *Women and men in the informal economy: A statistical picture*, International Labour Organisation, 2002.

45 For example, see *Sweden’s economic performance: Recent developments, current priorities*, McKinsey Global Institute, May 2006; *Turkey: Making the productivity and growth breakthrough*, McKinsey Global Institute, February 2003.

46 Paul Teicholz, “Labour-productivity declines in the construction industry: Causes and remedies (another look)”, AECbytes, viewpoint number 67, March 14, 2013.

The construction boom before the financial crisis had attracted foreign construction firms that brought large-scale operations and best practices to the CEE region, but their presence is fading. Overall, construction industries in the CEE nations have not taken advantage of efficient building techniques and modern materials that are in widespread use in other parts of the world, and they lack the talent to modernise. Many buildings are still constructed from brick and cast concrete blocks, rather than with materials that require less labour, such as metal frames and precast concrete. The average number of prefabricated concrete elements (for example, wall sections) per inhabitant in Austrian and Dutch construction is three times the CEE rate.⁴⁷ Also, investment in machinery per construction worker in CEE nations is 40 percent lower than in the EU-15: approximately \$2,000 (€1,500) compared with \$3,300 (€2,500).

We estimate that by adopting modern techniques and investing in better equipment, the CEE construction industry could reduce direct and indirect labour costs (for example, schedule compression) by up to 15 percent.⁴⁸ With modern building techniques, the need for skilled on-site labour drops dramatically: builders need far fewer carpenters, pipe fitters, and insulators when using prefabricated components, which reduces both daily labour costs and the length of the project. Modern techniques also carry lower risk for cost and time deviations, and projects are less likely to be held up by bad weather.

A lack of high-skill talent, particularly in management, represents a potentially significant barrier to modernisation in construction. The lack of management skills leads to performance issues, including an inability to deliver big projects on time and with expected outcomes. Even though CEE countries actually have a larger share of graduates with degrees in engineering, manufacturing, and construction than the EU-15 (0.15 percent of population compared with 0.12 percent), CEE companies are experiencing more and more difficulty in finding qualified high-skill workers in such disciplines.⁴⁹ One reason: the CEE region has been experiencing a “brain drain” as well-educated young workers emigrate to find better opportunities.

Construction productivity is limited not only by having too many subscale contractors and too few managers with adequate skills, but also by having too many subscale projects. Construction productivity in modern, large-scale developments is 20 to 30 percent higher than in single-plot developments, we estimate. Productivity could also be improved in the single-family home segment. We estimate that the cost per square foot of a new manufactured home (assembled on-site from factory-built sections) can be 10 to 35 percent less than the cost of a home that is built on-site, which remains the most common method in Central and Eastern Europe.⁵⁰

47 Gerhard Girmscheid and Michael Kröcher, “Innovative sales concept and knowledge-platform for prefabricated building construction”, presented at CIB World Building Congress in Cape Town, South Africa, May 14–18, 2007.

48 McKinsey Infrastructure Practice research; impact estimated based on experiences from 30-plus optimisation projects over the past three years.

49 Eurostat; World Bank; Stanford University.

50 McKinsey Infrastructure Practice research; US Manufactured Housing Institute (MHI); Freedonia Group; McGraw Hill Construction.

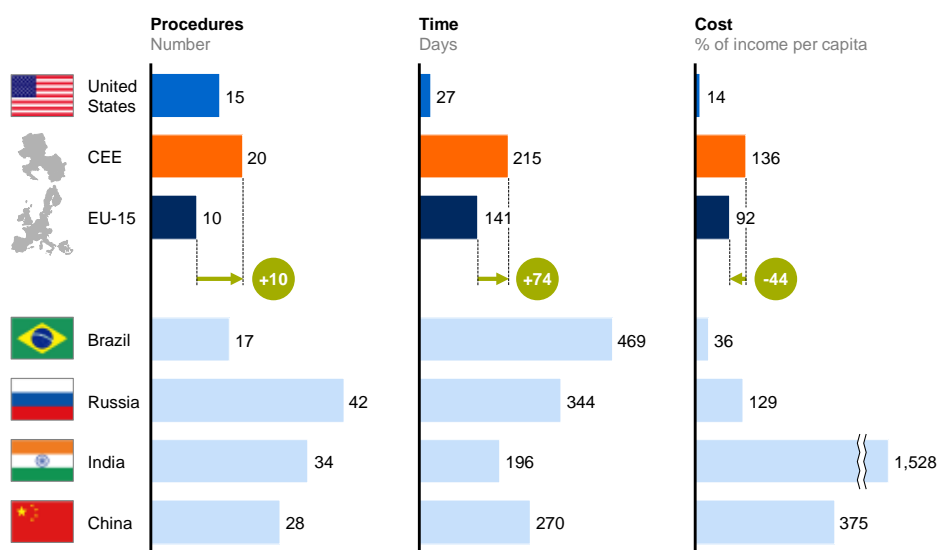
Improve regulatory environment

Finally, opaque and time-consuming regulatory processes can hobble construction productivity. Land acquisition and construction approval processes are lengthy and difficult by global standards. To build a warehouse in the CEE region takes, on average, twice as many procedures as in the EU-15 nations. Moreover, the warehouse may take 215 days or longer to complete, compared with 141 days in the EU-15. For example, in Poland and Croatia, it can take more than 300 days to build a warehouse. Also, the cost of constructing a warehouse is 573 percent of income per capita in Croatia and 294 percent of income per capita in Bulgaria vs. only 92 percent of income per capita in the EU-15 (Exhibit 28).⁵¹ Contract administration is another issue. Highways built recently in Romania cost three times as much per kilometre as those in Bulgaria, largely due to contract add-ons, which Romanian authorities typically allow. For the 96 contracts signed between June 2010 and June 2011, authorities signed 203 addenda, and the initial value of 23 contracts was changed.⁵²

Exhibit 28

It takes more procedures, time, and money to build a warehouse in a CEE nation than in the EU-15

Regulation



SOURCE: *Dealing with construction permits*, www.doingbusiness.org, World Bank, 2013; United Nations; McKinsey Global Institute analysis

Addressing the CEE construction productivity problem will require government leadership as well as the cooperation of companies in the industry and trade unions. Policy makers can address many barriers with focused incentives and initiatives, such as vocational training programs that teach modern construction skills. Some initiatives, such as on-the-job training, will require cooperation between companies and labour unions as well.

51 United Nations; *Doing business: Dealing with construction permits*, World Bank. Cost is recorded as percentage of the gross national income (GNI) per capita, no bribes included (only official costs recorded).

52 *Construction of roads and highways*, Romanian Competition Council, 2013.

Governments can reduce the reliance on informal labour in construction by targeting the main causes. Reducing payroll deductions would lessen the incentive for contractors to remain in the informal sector. Where budget realities rule out tax reductions, simplification of compliance procedures and stronger enforcement of existing laws and regulations, including increased oversight and tax audits, could also help reduce the informality. To reduce the informality associated with seasonality, the Netherlands and Belgium have enacted “all-season employment” subsidies. Ultimately, nations that deal with informality also have to consider the political ramifications: in many places, there is not sufficient political will to deal with informality.

To encourage companies to invest in equipment and adopt modern methods and materials, policy makers can consider introducing government-subsidised credits for investments, setting up cooperatives to lease or rent equipment, or requiring that the latest equipment be used in government-financed projects. Additionally, CEE nations can try to bring more global construction companies into the region, with the explicit goal of transferring best practices.

The construction industry also needs to cultivate talent, particularly managers. Governments can help by taking steps to avoid the “brain drain” of engineers and other technicians who emigrate.⁵³ Governments also can help raise skill levels of construction workers with training programs in secondary and vocational schools and by creating a national skill development program for experienced workers. In the meantime, companies could consider importing high-skill workers to help train their employees.

To help create more construction companies with the capabilities to take on large-scale projects, the government can manage large-scale public projects in a way that will make it easier for smaller firms to participate and gain experience with large projects. Governments can split these projects into several subprojects that two or three smaller companies can take on, for example. Municipalities can play a big role by revising zoning and planning rules to encourage large-scale development. Municipalities could also designate large sites for new housing and fund infrastructure.

Policy makers should also push for consolidation in construction to create larger, more capable firms and to spread best practices. One way to encourage consolidation is to allow more foreign competition, which would force domestic companies to become more efficient. The European Union has already removed major barriers to cross-border competition in construction, and CEE policy makers could facilitate the entry of more foreign players by increasing transparency in tendering and taking other steps to create fair competition between domestic and foreign companies.⁵⁴ To raise standards and instil best practices, government can use their power as large-scale developers.⁵⁵ France, for example, uses a two-part tender system under which bidders qualify on technical proposals, then on price.

53 “Stemming brain drain with the Grid in Southeast Europe”, *Natural Sciences Quarterly Newsletter*, volume 2, number 3, July–September 2004.

54 Michelle Egan, *Constructing a European market: Standards, regulation and governance*, Oxford Scholarship Online, 2003.

55 Massimo Geloso Grosso et al., *Trade and regulation: The case of construction services*, OECD, December 2008.

Finally, the easiest step for policy makers is to remove regulatory barriers. While fulfilling their responsibilities to ensure that projects are built safely and do not have unacceptable impacts (for example, harming fragile environments), regulators can make building in the CEE region faster and more efficient. It is important for the policy makers to focus on introducing quicker, less bureaucratic, and more transparent land acquisition and construction approval processes.

Raise productivity in freight transportation

Transportation contributes 6 percent of GDP in Central and Eastern Europe economies, slightly higher than the 4 percent it generates in the EU-15 economies.⁵⁶ The CEE nations have solid road and rail systems and a relatively underdeveloped air transportation infrastructure. Although the density of roads does not significantly lag behind the level of the EU-15, road quality is poorer, limiting speed and productivity. The CEE region actually has more metres of rail per square kilometre than Western Europe, but many rail systems have old equipment. In terms of air transportation, CEE economies lag behind the EU-15, in both relative size of their airport networks and air cargo carried.⁵⁷ Overall, CEE transportation industries have not taken advantage of information technology to improve operating efficiency and service.

We focus here on road freight, because there is a large opportunity for productivity improvement in this industry, and productivity gains in road freight would have the most powerful effects across the CEE economies. Road freight accounted for about 50 percent of total value added in the CEE transportation sector in 2010, compared with 40 percent in the EU-15. The CEE road freight market is not only a large market on its own, representing close to \$20 billion (€15 billion) in revenue in 2010, but also plays an enabling role for many other sectors, such as retail and construction.⁵⁸

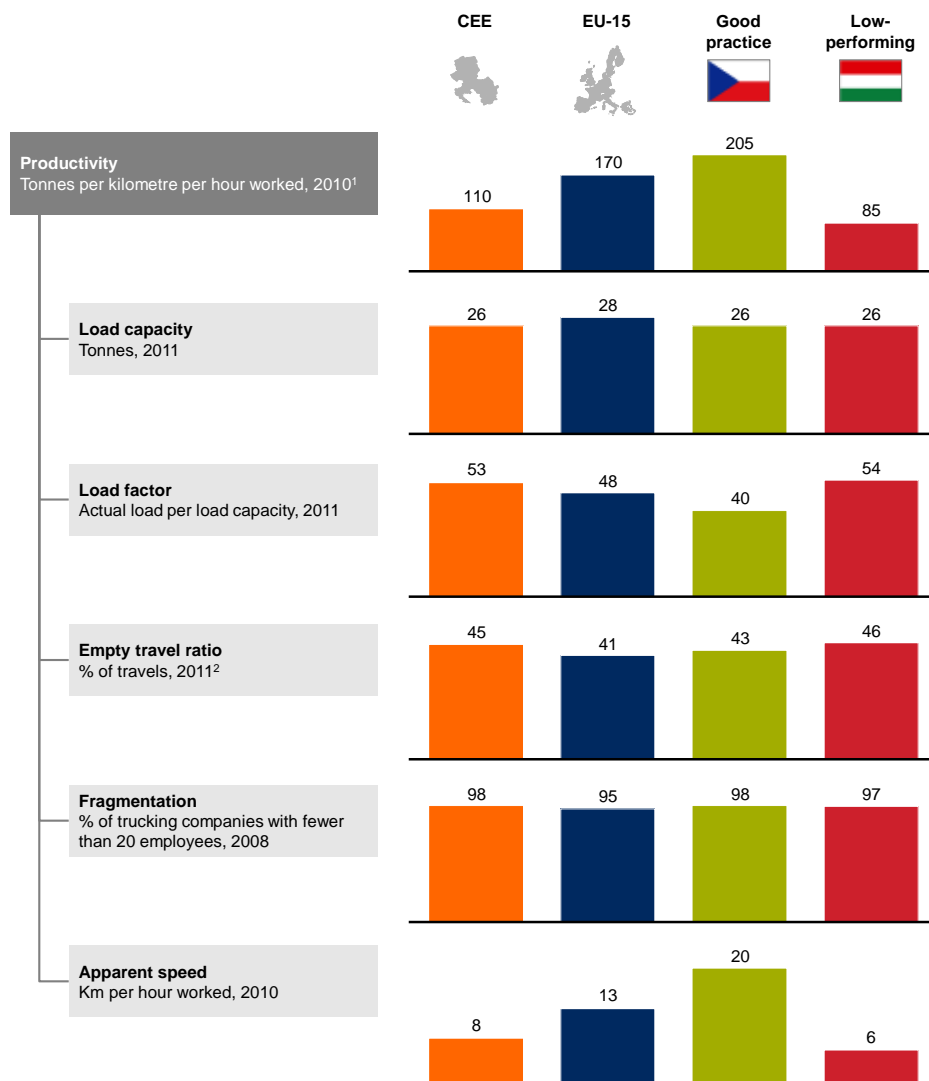
Today, road freight productivity (measured in tonne-kilometres travelled per worker hour) is 35 percent below EU-15 levels. This reflects both the relatively poor condition of CEE roads and the state of the CEE trucking industry, which is highly fragmented and has been slow to adopt modern IT tools for load building, route optimisation, and other functions, which have improved trucking productivity in other parts of the world (Exhibit 29).⁵⁹ We see several measures that can help address issues that impede productivity in the sector.

⁵⁶ *National Accounts by 64 branches—Aggregates at current prices*, Eurostat, 2010.

⁵⁷ Eurostat; local statistical offices; *The World Factbook*, Central Intelligence Agency; World Bank.

⁵⁸ *National Accounts by 64 branches—Aggregates at current prices*, Eurostat, 2010; OECD.

⁵⁹ *Transport in figures 2013*, European Commission and Eurostat; EU KLEMS database, November 2009 release, March 2011 update.

Exhibit 29**Productivity in land transport is more than one-third lower than in the EU-15, mostly due to inadequate infrastructure**

1 CEE excludes Bulgaria and Croatia.

2 EU-15 excludes Belgium, Italy, and Luxembourg; CEE excludes Romania.

SOURCE: Eurostat; EU KLEMS; McKinsey Global Institute analysis

Improve transportation infrastructure

Prior to the financial crisis, CEE road freight productivity was improving, as a result of market liberalisation, investments, and improvements made as nations joined the EU. As members of the EU, CEE nations adopted common rules on administrative processes, driver work rules, and cabotage (carriers from one country moving passengers or freight between destinations within another country). Between 2004 and 2008, investments in road infrastructure and maintenance per square kilometre grew by 24 percent annually in the CEE region, compared with only 7 percent in the EU-15 countries.⁶⁰ However, between 2008 and 2010, investments fell by 18 percent a year in the CEE and 31 percent a year in the EU-15.

⁶⁰ *Infrastructure productivity: How to save \$1 trillion a year*, McKinsey Global Institute, January 2013.

Today, the lower quality of old roads, especially local and regional ones, results in low apparent speed and a persistent productivity gap. On average, CEE truckers log only 8 kilometres per hour worked, compared with 13 kilometres in the EU-15. Also, CEE countries still have fewer roads and motorways per square kilometre of land than the EU-15 (1.0 kilometres vs. 1.4 kilometres).⁶¹ CEE road infrastructure scores 3.6 on the World Economic Forum's 1 to 7 scale, compared with 5.7 for Western Europe (BRIC nations were rated 3.2).

To build a more productive road freight capability that will support GDP growth and expand exports, CEE governments will need to continue investing in modern infrastructure while making the most of existing capacity. However, regulations and low productivity in the construction sector are barriers to necessary infrastructure improvements. Most of the delays in infrastructure projects are driven by regulation, and in CEE economies such delays average 25 percent of a project's timeline, compared with 11 percent in the EU-15.

Improve company productivity

Although transportation companies in the CEE region have started to focus on using information technology to improve scheduling, raise load factors, and reduce idle time, they have a long way to go to catch up with Western European standards. The empty travel ratio for CEE trucks is 45 percent vs. 41 percent in the West, for example.⁶² Also, a lack of back-office automation in order processing and confirmation, load preparation, and route planning reduces productivity because drivers spend considerable time filling out forms or planning their own routes. We estimate that trucking companies can increase efficiency by 3 to 4 percent (measured in litres of fuel per revenue-tonne kilometre), assuming an oil price of \$100 (€72) per barrel, by using load-building systems, route-optimisation software, and other IT tools that maximize truck utilisation.⁶³

The structure of the trucking industry is another impediment to improving productivity. While the Western European trucking industry has already gone through a wave of consolidation, the CEE market is still extremely fragmented. The industry is dominated by small companies and self-employed truckers with limited access to capital to invest in IT or other productivity improvements. The share of trucking companies with fewer than 20 employees in CEE is 98 percent, compared with 95 percent in the EU-15.⁶⁴ A reason for this is the high share of "full truck load services" (that is, regular and repeated deliveries along the same routes), which can be provided efficiently by small players.⁶⁵ There are also many self-employed truckers. Scale is an important advantage in what is usually a low-margin business (pre-tax margins are typically 3 to 4 percent).⁶⁶ Larger companies that can spread overhead over more drivers and trucks—and that can invest in systems to maximize productivity—are in a far better position than small haulers.

61 *The World Factbook*, Central Intelligence Agency.

62 EU KLEMS database, November 2009 release, March 2011 update.

63 RTK (revenue tonne-kilometre) is sold capacity for cargo expressed in metric tonnes, multiplied by the distance travelled.

64 Eurostat: *Services by employment size class*, 2008

65 "Full truck load" is an indication for a truck transporting cargo directly from supplier to receiver; usually nonspecialised transport of full loads, direct door-to-door.

66 NEA via NTL's *Transport in figures 2012*.

Consolidating the CEE trucking sector will not be simple. Existing companies lack capital to buy competitors. CEE-based freight customers could build economies of scale through more extensive use of shared fleets (contracting with freight companies, rather than owning trucks). Typically, retailers and manufacturers that run their own fleets have a one-third higher empty-haul ratio than freight companies, and in many advanced economies such companies have outsourced trucking to large freight companies.⁶⁷ The trucking companies that get outsourcing contracts from retailers and other companies, in turn, can optimise capacity utilisation by affiliating with haul management services, which work with brokers and freight forwarders that are looking for freight carriers.

CEE trucking firms could also increase scale by taking advantage of their location and labour-cost advantage to capture a greater share of the international market. Labour costs, which typically make up one-third of total trucking costs, have risen by as much as 20 percent over the past five years in Western Europe.⁶⁸ CEE labour costs in trucking are still far lower than in Western Europe; Hungary trucking labour costs are 50 percent below costs in the Netherlands, and in Bulgaria and Romania labour costs are as much as 80 percent less than in the Netherlands.⁶⁹ Using their labour cost advantage, CEE freight companies can try to capture international demand within and beyond the region. International traffic flows across Europe are growing three times as fast as domestic ones, and even faster in the CEE region.⁷⁰ Furthermore, the EU is expected to further liberalise cabotage markets to remove remaining restrictions (now every haulier is entitled to perform up to three cabotage operations within a seven-day period starting the day after the unloading of the international transport).⁷¹

Finally, to build long-term sustainability, the CEE trucking industry can follow the example of trucking firms in Western Europe that have moved into higher-value-added (and higher margin) services such as logistics and freight forwarding. To aid that shift, companies and CEE governments could identify issues with current suppliers and unmet needs of trucking customers to find opportunities. Governments can fund the research and support the industry with promotional efforts.

Further modernise the retail sector

Across economies, the retail sector is a large employer and therefore has a strong influence on national productivity. In the CEE economies, retail accounts for about 5 percent of total gross value added and roughly 8 percent of employment.⁷² The pre-recession growth of the retail sector in CEE was fuelled by foreign investments by leading Western European retailers such as Tesco, Carrefour, and the Metro Group. Retail space in Hungary and Poland grew by over 8 percent from 2004 to 2008, more than twice the 3 percent growth in Western Europe.⁷³

67 McKinsey Global Institute research.

68 *Cost comparison and cost developments in the European road haulage sector*, NEA Transport research and training, 2010.

69 Ibid.

70 *Transport in figures 2013*, European Commission and Eurostat; Global Supply Chain Intelligence.

71 Hauliers in the 27 EU member states are restricted to carrying out a maximum of three domestic transport operations in fellow member states over a seven-day period, immediately following an international operation.

72 *National Accounts by 64 branches—Aggregates at current prices*, Eurostat, 2010; gross value added (at basic prices) and employment data.

73 Planet Retail, McKinsey Retail Practice analysis.

Even in the slow recovery from the recession, the CEE retail sector has continued to expand, with sales growing by almost 4 percent annually, compared with less than 2 percent yearly in the EU-15 economies from 2007 to 2012.⁷⁴ Growth is dominated by the expanding “modern” sector—discount stores, supermarkets, hypermarkets, and cash-and-carries—whose sales grew by 7 percent annually as sales in traditional mom-and-pop stores fell by 3 percent annually from 2007 to 2012.⁷⁵ Today, the top ten European grocery retailers are present in most of the CEE countries.⁷⁶ In the Czech Republic, modern trade accounted for 80 percent of retail trade in 2010 and the top ten retailers are international chains, led by Germany-based Schwarz Group.⁷⁷

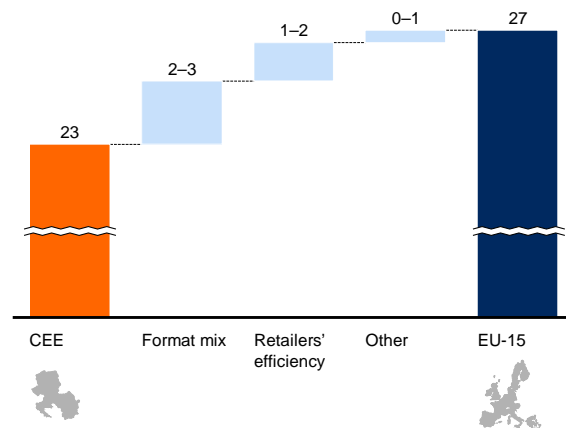
The rise of the foreign chains and their modern formats has raised average productivity in the retail sector, but there is still a gap. Our analysis shows that productivity in CEE retail was 15 percent lower than in EU-15 retail in 2010, based on gross value added per employee (€23,000 in PPP terms per employee per year in CEE vs. €27,000 in the EU-15).⁷⁸ About half the difference is the result of the format mix in CEE-area retailing, where traditional trade is still important. Much of the remaining productivity gap is due to relative inefficiencies of retail operations in both traditional and modern stores, mainly due to underinvestment in IT (Exhibit 30). In the past two decades, modern-format retailers have grown through expansion. Now they have the opportunity to raise productivity through targeted investments in IT and lean operations.

Exhibit 30

The productivity gap between CEE and EU-15 retailers is due to differences in format mix and operating efficiencies

Productivity in retail

Gross value added per employee, € thousand, purchasing power parity, 2010



NOTE: Numbers may not sum due to rounding.

SOURCE: Eurostat; McKinsey Global Institute analysis

74 Euromonitor.

75 Ibid.

76 Of the top ten, nine have entered the Polish market, six are in Hungary, and five in Romania; Planet Retail, McKinsey Retail Practice analysis.

77 Incoma GfK; company annual reports; McKinsey Retail Practice analysis; Rocenka obchodu CR 2010.

78 *National Accounts by 64 branches—Aggregates at current prices*, Eurostat, 2010; gross value added (at basic prices) and employment data.

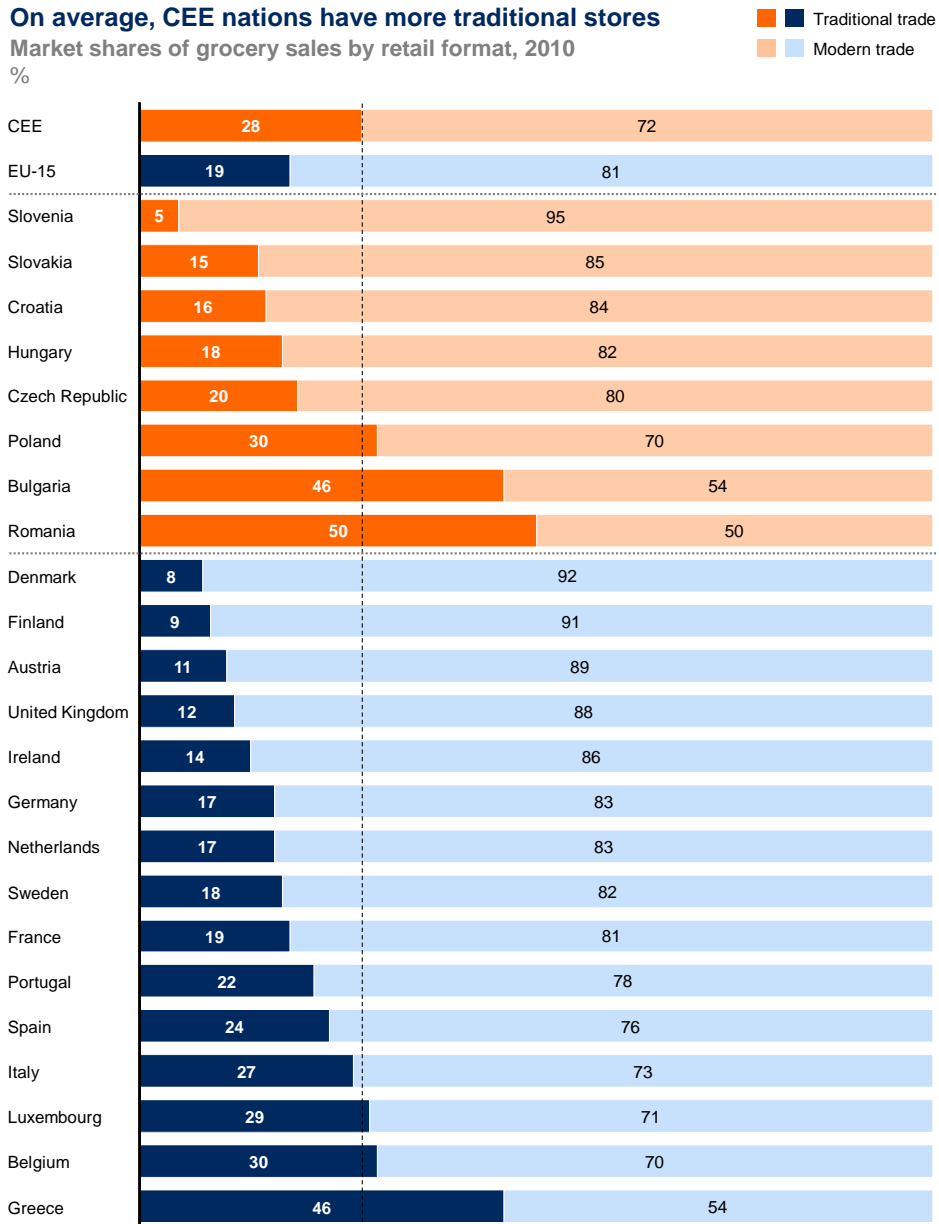
Across the CEE region, traditional stores accounted for 28 percent of total retail sales in 2010, compared with 19 percent in the EU-15. Sales through traditional stores range from 5 percent of retail trade in Slovenia to 50 percent in Romania (Exhibit 31).⁷⁹ Typically, the productivity difference between traditional and modern stores is significant, which means that by raising the proportion of modern stores in the CEE economies and addressing productivity issues in both modern and traditional stores, the CEE retail industry can narrow the productivity gap with Western Europe. In the United Kingdom, where 88 percent of stores are modern, sales per square metre are \$13,277 (€10,007), compared with \$5,430 (€4,092) in Romania, where 50 percent of stores are modern.

Exhibit 31

On average, CEE nations have more traditional stores

Market shares of grocery sales by retail format, 2010

%



SOURCE: Euromonitor; McKinsey Global Institute analysis

79 Euromonitor.

Raising the proportion of modern-format stores is a simple way to raise sector productivity. At this point, further penetration will depend largely on urbanisation trends and the removal of the remaining regulatory barriers. Modern-format stores are best adapted to urban areas with high population density, but CEE urbanisation rates are well below the rates in Western Europe. In Poland and Romania, urbanisation rates are just 61 and 53 percent, respectively, compared with 77 percent in the EU-15, which might explain the still higher penetration of traditional (“mom and pop”) stores: 30 percent in Poland and 50 percent in Romania.⁸⁰

Urbanisation is an inherently slow process and cannot be relied upon to drive productivity gains in the near term. But removing remaining regulatory barriers can accelerate adoption of modern formats. While the CEE nations are more liberalised than their EU-15 counterparts in terms of working hours (the average store is open 168 hours a week in CEE countries, compared with 107 hours in the EU-15), zoning regulations now tend to limit the development of efficient larger-format stores. Zoning rules that limit store size and density (that is, the number of large stores within a certain area) restrict the ability to erect new hypermarkets or supermarkets. Retail regulations have generally become stricter over the past two decades, and policy makers have taken additional steps in the wake of the global financial crisis to protect small retailers. In some jurisdictions, larger format stores need special approvals or are burdened by additional constraints. For example, in Hungary, under what is called the “shopping mall ban”, construction or expansion of stores with more than 300 square metres is prohibited until 2015.

In Western Europe, the restrictions on modern-format stores that were designed to protect smaller retailers and limit sprawl are being loosened, at least in some areas. In 2008, France liberalised the law that stores of less than 1,000 square metres in towns with more than 20,000 inhabitants no longer require authorisation. Prior to the reform, all stores of 300 square metres or more required approval, and almost no stores of more than 6,000 square metres were approved. Also, France has accelerated planning processes for new outlets, as long as the store does not negatively influence the quality of life. After the law changed in 2008, Schwarz Group opened some 200 Lidl discount stores in three years.

Targeted zoning changes can help accelerate development of modern formats, too. In Sweden, for example, the liberalisation of zoning regulations in the 1990s enabled the entrance of new players, leading to more competition and productivity increases averaging 4.6 percent a year from 1995 to 2005. For example, officials can designate commercial zones for large stores to encourage private investment, loosen restrictions on shop sizes that require government authorisation, and simplify approval processes. Accelerated approval processes would also help.

Both traditional- and modern-format stores in the CEE region can raise productivity by improving operations. Many stores have not made the best use of information technology to increase efficiency and provide better service and value. IT spending by EU-15 retailers averaged 1 percent of sales in 2011, compared with 0.7 percent for CEE retailers. For smaller retailers, integrated enterprise resource planning and warehouse management systems could reduce process times and stock levels, automate transactions, and increase management oversight of operations. In modern stores, technologies such as

80 *World development indicators 2012*, World Bank, 2011.

electronic shelf tags can save on labour. Radio frequency identification tags placed on cases or pallets of goods can improve store and warehouse inventory tracking and provide data for more accurate demand forecasting.

In many Western European countries, technology is also used extensively to improve customer targeting and service. Retailers today rely increasingly on big data and advanced analytics to segment consumers more narrowly.

In the CEE region, we see an opportunity for growth in online shopping, which can help raise sector productivity. The boundary between brick-and-mortar stores and online stores is blurring across Europe; by complementing physical stores with online shops, retailers can serve customers better and reduce overall overhead costs. Online stores allow retailers to expand without having to find scarce retail space and provide a way around inefficient supply chains. In the Czech Republic, online sales have doubled in the past five years, and the number of Bulgarians who made online purchases more than once a month doubled in 2010.⁸¹

CEE stores can also improve margins by building up private-label sales. With private-label foods, retailers can cut costs such as the fees paid for the sales and marketing operations of branded product companies, which imbed those expenses in their costs. Penetration of private labels in CEE retail is still relatively low. In the Czech Republic, Hungary, Poland, and Slovakia, private-label sales represent about 30 percent of total sales, while in the United Kingdom this share is around 45 percent.⁸² Foreign chains operating in the CEE region, however, have not yet convinced customers that private-label products match name-brand quality. Indeed, in the Czech Republic, brand-name products grew from 20 percent of the current expenses of households in 2007 to 39 percent in 2011.⁸³

Retail productivity is also highly dependent on the efficiency of the supply chain. Making retailers more efficient by applying the latest technology or raising margins with private-label goods will have only limited effects on the sector without concurrent improvements in the supply chain. Companies need to work with vendors such as trucking firms to increase efficiency, which may depend on infrastructure improvements as well.

81 Czech Republic Association for Electronic Commerce (APEK); Lupa; Czech Statistical Office. According to an Allegro Group survey, 22 percent of the Bulgarian population shopped online in 2010 compared with 13 percent the year before. "Poland Retail Report, Q3 2013", *Business Monitor International*, May 2013.

82 PLMA; Nielsen; GfK Czech.

83 Ibid.

Improve productivity in network industries

During the past 20 years, most of the CEE countries have started the structural transformation of state-owned network industries, such as railways, electric utilities, and postal and telecom services, to prepare for EU membership. Virtually all of these industries were in government hands in the 1990s, leaving a legacy of inefficient operations and suboptimal services. Here we look at remaining opportunities to raise productivity and support economic growth through further reforms of these industries.

Railways

CEE countries built extensive rail systems, which were the backbone of their economies and probably their best-functioning industries.⁸⁴ However, they were not efficient by Western European standards. Not only were they monolithic transport monopolies, but they were also highly vertically integrated, producing their own equipment and supplies, and running their own hospitals, schools, food stores, and restaurants. As a consequence, only 50 percent of their employees were actually involved in providing transportation. While Germany had 5.2 employees per kilometre of line in 1999, Slovakia had 13.4. Reforming state-owned rail systems is often a lengthy process, and CEE nations are at different stages of completion. Based on the best practices from Western Europe, the following steps could be considered:

- **Unbundling infrastructure and service.** When rail infrastructure (the rail network) is separated from operations (transport service), infrastructure becomes a cost centre, with access charges assessed to separate operating companies (for example, intercity and suburban passenger lines and freight). This exposes true costs and opens the system for competition in service.
- **Introducing competition.** Once rail infrastructure is separated from services, other transport service providers can be allowed to operate and compete on the same lines. Slovakia and the Czech Republic for example have already made significant progress in introducing competition and unbundling. Bulgaria, Croatia and Romania have more work to do.
- **Making rate subsidies transparent.** To account for deficits caused by mandated services and socially controlled fares, governments should implement public-service obligation payments to compensate the rail system for those costs. This requires a transparent framework for subsidising service.
- **Transforming ownership.** EU rules are agnostic about whether rail systems are privately or publicly owned. In most EU countries, rail networks remain in state hands, but services are often provided by private companies. The record of private ownership of services in Western Europe, Japan, and elsewhere suggests that private sector operation improves efficiency.

Postal services

In the past 20 years, the EU passed three postal directives requiring member states that account for 95 percent of the EU postal market to be fully liberalised by the end of 2010. The remaining 5 percent, which includes Hungary, the

84 Thompson, Louis S., "Railways in Eastern Europe", from *What Role for Railways in Eastern Europe*, European Conference of Ministers of Transport (ECMT) Roundtable 120, ECMT Conference in Cambridge, England, September 12–13, 2001.

Czech Republic, Poland, Romania, and Slovakia, were allowed to postpone the reform until the end of 2012. Although not a formal part of the Postal Reform, postal liberalisation was accompanied by reorganisation of state-owned postal operators, and today all EU postal entities, apart from Cyprus's, have been converted from state agencies to state-owned corporations.⁸⁵ Three postal services have been privatised (Austrian Post, Dutch TNT, and Deutsche Post). They had significantly higher earnings before interest and taxes (EBIT) margins (around 15 percent) from 2003 to 2011 than the best-performing state-owned services (Swedish Posten, Finnish Itella, and French La Poste), whose EBIT margins were around 6 to 7 percent.⁸⁶

CEE postal operators in general have not diversified their services and sources of revenue to the degree that many European services have. In 2011, all revenue of Poczta Polska came from universal mail services, while Swiss Post derived only 35 percent of revenue from postal service; it generated 26 percent of sales from postal financial services, 18 percent from postal retail, 15 percent from express parcel service, and 6 percent from information services.⁸⁷

Western European best practices offer a road map for steps to improve postal service efficiency: automate processes, standardise services, and diversify revenue. Deutsche Post DHL provides the ultimate model for how a postal service can evolve. It is not only the largest mail operator in Europe, but it has also become the largest logistics company since it was privatised in 1995. Deutsche Post invested in automation and standardisation to improve service quality and raise productivity in its core business. DHL, which started in package delivery, has become a strong player in global logistics services and now accounts for half of the company's \$74 billion (€53 billion) in annual revenue.⁸⁸

Electricity

State-owned electric monopolies in CEE regions were partly privatised after 2000. In Hungary, 50 percent of electricity generation today is in private hands, and distribution is fully privatised. In Slovakia, 80 percent of generation comes from Slovenské elektárne, which is 66 percent owned by Enel. And despite the fact that the state holds 51 percent stakes in all three distribution companies in Slovakia, the companies are fully managed by foreign owners (RWE, EDF, and E.ON). In Romania, 50 percent of electricity distribution is privately owned (by E.ON, CEZ, and Enel).

Average electricity consumption per capita in the region is only 58 percent of the Western European average (4.0 megawatt hours per capita compared with 6.8 MWh per capita).⁸⁹ CEE utilities currently generate enough electricity for the region's needs (average net generation per capita is 4.2 MWh), but the Union for the Coordination of Transmission of Electricity estimates that consumption in this region will increase by 25 percent over the next decade.⁹⁰

85 Mark Winkelmann et al., *The evolution of the European Postal Market since 1997*, study for the European Commission and DG Internal Market and Services, ITA Consulting and Wik-Consult, August 2009.

86 International Post Corporation.

87 Ibid.

88 Ibid.

89 *Statistical Yearbook (2011)*, European Network for Transmission System Operators of Electricity.

90 Union for the Co-ordination of Transmission of Electricity.

The persistence of state ownership in electricity generation and distribution, as in Croatia and Slovenia, could be a drag on future growth, given the lack of government resources to finance the expansion of capacity. In addition, unstable and unpredictable regulation across the CEE region, originating in both the EU and national legislatures, adversely affects the investment environment.⁹¹ For example, rapid growth in renewable energy before 2010 ended when government policies changed. The Czech Republic stopped support for photovoltaic solar energy completely; Bulgaria cut support for solar by 50 percent and for other renewable energy sources by 20 percent. Romania reduced by half the subsidies for renewables paid under its green certificate scheme.

Policy reversals and market shifts have also hampered nuclear energy. Up until 2011, there was a clear business case for building nuclear power plants, because electricity rates and carbon dioxide (CO₂) permit prices were high. Bulgaria, the Czech Republic, and Romania had ambitious plans to build new nuclear plants by 2020. However, when the wholesale price of electricity and CO₂ permits suddenly dropped in 2011, it became economically more viable to continue producing electricity from coal-fired power plants, so most of the nuclear-related projects were temporarily suspended. Plans for building new gas-fired generation facilities in the Czech Republic and Hungary were also derailed because low prices of CO₂ permits did not make use of gas economically attractive.

The Czech Republic is arguably a regional success story in energy market liberalisation. As of January 1, 2007, all customers were allowed to choose their power suppliers, and retail prices were set by the market. After a series of successful market entries by players such as Lumius, Dalkia, and Bohemia Energy, the market share of partially state-owned CEZ dropped from 60 percent in 2000 to 44 percent in 2011. However, the expected drop in prices due to increased competition has not fully materialised, mostly due to EU and national policies instituting fees to support renewable energy that was passed on to consumers. For instance, between 2011 and 2013, the wholesale price of electricity decreased by nearly \$24 (€15) per MWh, from \$70.40 (€50.60) to \$46.50 (€35.50), but the fee for support of renewable energy increased by \$8.20 (€6.90), from \$17.80 (€12.80) per MWh to \$26.1 (€19.70). Some 46 percent of the wholesale price drop was eaten up by an increased administrative fee, and the retail price remained almost flat at around \$162 (€124) per MWh from 2011 to 2013.⁹²

To create a more stable and sensible environment for energy investment, EU and CEE policy makers can clarify regulations and set clear energy policy goals. To promote competition and stability and improve energy security, it would help to have additional efforts and investment to connect regional energy networks and markets. Good examples of such efforts include the planned gas interconnections between Slovakia and Hungary as a part of a proposed north-south gas corridor from Swinoujscie to Krk. International electricity and gas trading hubs, such as the PXE (Power Exchange Central Europe) in Prague and CEGH (Central European Gas Hub) in Vienna, are also useful steps toward integrating regional energy markets. Large utilities can reduce regulatory burdens by expanding in non-regulated areas such as offering energy-saving services and products.

91 *Tackling investment challenges in power generation*, International Energy Agency, 2007.

92 Eurostat.

Telecom

The CEE telecommunications market is by far the most liberalised “network” industry in the region. Most of the countries started the liberalisation phase in the late 1990s. The Czech Republic, for example, was obliged to deregulate telecom service after a 1997 agreement with the World Trade Organization and to comply with a 1999 EU directive. Today, none of the eight CEE countries has a state-owned monopoly in mobile networks, and each has between three and five operators. Six Western European mobile telecom players (Deutsche Telekom, Orange, Telekom Austria, Telenor, and Vodafone) are active in these markets. The broadband data services market is equally liberalised, but in this sector local companies lead.

Overall, mobile penetration is almost on par with Western Europe’s. There are approximately 120 mobile subscriptions per 100 people, compared with 127 per 100 in the EU-15. However, the CEE market still lags behind the EU-15 in terms of fixed broadband Internet penetration (18 connections per 100 citizens, compared with 29). CEE countries have just one-fifth as many secure Internet servers per million people as the EU-15 (238 vs. 1,086), a sign of still underdeveloped e-commerce.⁹³

In the coming years, the CEE region’s telecommunications market will undergo another shift, as new EU policies are implemented to address the high degree of fragmentation in electronic communications in the EU (where there are 100 operators compared with four in the United States and three in China). Investment in communications infrastructure actually fell by \$4.5 billion (€3.5 billion) from 2008 to 2012, even though demand across networks grew fourfold. Consumers pay high roaming charges, which the European Commission regards as unjustified. Under proposed reforms, the EU would create a “Digital Single Market” that would ensure access to electronic communications from any point in the union without cross-border restrictions or unjustified additional costs and would permit companies to compete across all EU markets.⁹⁴ Once this regulation is in place, CEE telecommunications customers can expect to benefit from better connectivity, better quality of service, and lower charges.

GENERATE HIGHER DOMESTIC SAVINGS TO FUND GROWTH AND ATTRACT INVESTMENT

The third element of the refined growth strategy is to improve the self-funding capabilities of the CEE economies once aggregate demand picks up. Overall saving rates in the CEE economies are low compared with rates in other regions of the world. A healthy saving rate is important for an economy’s growth and competitiveness, providing the capital to fund business expansion and job creation, as well as to pay for infrastructure and other public investments that help the economy grow. Under the growth model we outline, consumption would fall from 78.6 percent of GDP to 74.6 percent, investment would rise from 24.9 percent of GDP to 26.0 percent, and savings would rise from 19.2 percent of GDP to 23.0 percent.

⁹³ *World development indicators 2011*, World Bank, 2011.

⁹⁴ *Measures concerning the European single market for electronic communications and to achieve a connected continent*, European Commission, COM(2013) 627 Final, 2013.

For nearly 20 years, savings in the CEE region have failed to cover investment. During this period, overall savings were about 19 percent of regional GDP, and investment hovered around 24 percent of GDP. The imbalance was the primary factor for regional current account deficits throughout the period. In 1995 the gap between savings and investment was about \$5 billion (€4.5 billion), and at its peak in 2008 investment exceeded savings by \$102 billion (€69 billion). The gap fell to \$41 billion (€28 billion) in 2011, when savings totaled about \$260 billion (€177 billion) and investment was \$301 billion (€205 billion).

Household saving habits, as well as government fiscal problems, are the root causes of anaemic saving rates in the CEE economies. In contrast, corporate savings have been rising rapidly in recent years, increasing from \$105 billion (€84 billion) in 2005 to \$221 billion (€159 billion) in 2011, when corporate savings reached about 18 percent of GDP. Household savings rose from \$29 billion (€23 billion) in 2005 to a peak of \$53 billion (€38 billion) in 2009 before dropping to \$21 billion (€15 billion) in 2011. Government savings, typically the smallest component of overall national savings, disappeared with the global recession; CEE nations have been running deficits since 2009.

Low household saving rates stem from many factors, including modest income levels, wariness about investing in financial assets, and government-financed education, health care, and pensions, which reduce major motivations to save. Low income levels in CEE leave households with relatively little disposable income for savings. According to a survey by ING, a Dutch bank, households in Slovakia, Poland, and Romania spend almost half their income on food and 14 to 18 percent of income on utilities. In most other European countries, food takes up a third or less of total income and utilities about 6 or 7 percent.⁹⁵

The arrival of strong Western European banks in the CEE region has improved bank management and bolstered confidence in the financial sector. But there is still some apprehension about investing in financial instruments, which is left over from the 1990s, when Ponzi schemes flourished and several banks went bankrupt. In the mid- to late 1990s, extremely high inflation—averaging 96 percent a year in Bulgaria and 68 percent in Romania—reinforced the dangers of depositing money in the financial system as buying power evaporated and returns on deposits failed to keep pace with rising prices.

Another factor in limiting saving is the breadth of state spending. Households generally accumulate savings for retirement, health care, and education; in CEE nations, those costs are largely covered by the state. The same ING survey found that 44 percent of the respondents in CEE countries were comfortable with their accumulated savings, compared with 33 percent in more developed EU economies.

When citizens of Central and Eastern Europe have the opportunity to invest, they tend to concentrate in real estate. In 2011, 87 percent of people in CEE economies owned homes, compared with 67 percent in the EU-15. Ownership is nearly universal in Romania, where at the peak of that country's real estate bubble only 15 percent of household wealth was held in formal financial

95 International survey on pensions and long term savings, ING, 2012. The survey was conducted by TNS NIPO, a Dutch survey agency, in May and June 2012; 1,000 respondents in each country were approached by questionnaire. The bank surveyed the Czech Republic, Poland, Romania, and Slovakia (CEE nations), as well as Austria, France, Germany, Italy, the Netherlands, Spain, and the United Kingdom from the EU-15.

instruments. From 2004 to 2007, Romanian real estate prices rose 23 percent annually (compared with a 4.2 percent annual return on savings accounts); in Poland, property values rose by 17 percent annually, while savings accounts paid 3.8 percent. Legislation in CEE countries also generally favours landlords, offering an incentive for purchasing property for rental, while in the EU-15 tenants receive greater protection.

Liquid financial assets—stocks, bonds, and mutual funds—continue to hold relatively little appeal for CEE residents. Financial markets are still underdeveloped, and the total capitalisation of CEE stock exchanges was just 20 percent of the region's GDP in 2011. In Europe, publicly traded stocks were worth 60 percent of the EU-15 GDP. In Romania and Slovakia, stock market capitalisation was less than 10 percent of GDP.

Funded pension systems and life insurance have yet to gain a strong foothold in the region. Assets under management in private pension funds in CEE countries accounted for about 9 percent of regional GDP in 2011, compared with about 33 percent in the EU-15. The story is similar for life insurance policies, where gross written premiums in CEE markets were less than 2 percent of GDP, compared with about 6 percent in the EU-15. In Western Europe, incentives, especially tax deductions, encourage investment in retirement assets and purchases of life insurance policies. Such incentives are weaker in CEE economies.

The slow development of pension and life insurance assets in the CEE economies can also be attributed to the relative newness of such instruments (private pensions were not introduced in the CEE region until the late 1990s) and mixed messages from governments. In reaction to the 2008 global crisis, for example, Hungary nationalised private pension funds. In the Czech Republic, attempts to build a mixed private and public pension system have been held back by a lack of political commitment and alignment between governing and opposition parties. Also, the plan, which opened at the beginning of 2013, did not offer sufficient incentives for individuals. Only about 80,000 people had signed up by September 2013.

By understanding why households in CEE economies are reluctant to put their money into the formal financial system, governments can begin to formulate policies to overcome these obstacles. Measures can be taken to improve the supply of investment options and to spark increased demand. For example, governments can help create a strong base of domestic institutional investors by reforming pension and insurance systems. In addition, they can encourage households to convert cash, gold, and other assets into bank deposits and other financial instruments. A significant focus should be on integrating the unbanked segment, which is one-third of the region's population.

CEE governments could learn from other countries that managed to implement successful policies to increase savings. For instance, in 2002, the Australian government revised the national retirement fund guidelines, requiring all employers to contribute 9 percent of salary and wages to the fund and placing strict limitations on early withdrawal of these funds by retirees. In part due to

these measures, Australia's household saving rate increased from 4.4 percent of GDP in 2003 to 8.0 percent in 2008.⁹⁶

The CEE banking system is also in need of higher domestic savings to fund lending, as funds from parent banks are reduced. The Western European banks that dominate Central and Eastern European markets are changing their models due to regulatory reforms, which means that lending by subsidiaries is increasingly financed by domestic funds.⁹⁷

On the supply side, governments can promote the continuing development of deep and stable financial markets that can effectively gather national savings and direct these funds towards the most productive investments. Policies could support stronger and more liquid corporate bond and equity markets. Governments can also create incentives for wider access to financial services, especially for lower-income households. In addition, smart policy measures can help assure that small and medium-sized enterprises are not squeezed out of the credit market in times of tight capital. Young companies in particular are a major source of new jobs, but rarely can they access global funding as readily as older and larger companies.

In addition to developing domestic sources of investment capital, the CEE economies can take steps to renew FDI flows. To attract both domestic and foreign investors, the CEE economies should consider a series of measures to make the region more attractive for investors: improving infrastructure, untangling regulatory complexity, and encouraging innovation, for example. The countries of the CEE region can learn from other nations that have created effective agencies to drive FDI. Singapore has its powerful Economic Development Board, which is responsible for a range of development activities, including attracting FDI. Recently, Singapore also created a Pro-Enterprise Panel under the Ministry of Trade and Industry, which is intended to build on the nation's business-friendly reputation and accepts online suggestions for ways to change regulations and eliminate red tape.

□ □ □

The new growth model provides a road map for CEE nations to consider. It is an ambitious programme, but not beyond the capabilities of these nations—their business communities, citizens, educational institutions, and policy makers. With careful planning and coordination, economies across Central and Eastern Europe can deal with challenges such as ageing and put themselves back on a path to sustainable growth and rising incomes.

96 See *Farewell to cheap capital? The implications of long-term shifts in global investment and saving*, McKinsey Global Institute, December 2010.

97 *Banking in Central and Eastern Europe and Turkey: Challenges and opportunities*, European Investment Bank, January 2013.



3. Building the foundation for the new growth model

To carry out the three strategic thrusts described in the previous chapter, the CEE economies need to address barriers to growth that span economies and sectors. By taking steps to improve infrastructure, enable urbanisation, build institutions, simplify regulations, enhance labour force quality, and build a greater capacity to innovate, CEE economies can develop an enduring foundation for growth. In this chapter we discuss ways to build this foundation.

ACCELERATE INFRASTRUCTURE DEVELOPMENT AND INCREASE PRODUCTIVITY OF INVESTMENTS

To support GDP growth rates that are comparable to pre-crisis levels, CEE countries would need to raise infrastructure spending from current levels. How much CEE nations need to increase infrastructure investments depends on the growth target. Over the past two decades (1992 to 2011), CEE nations invested an average of 3.3 percent of GDP per year in infrastructure, compared with the EU-27 average of 2.6 percent. In 2010, infrastructure spending was higher, at approximately 4.1 percent of CEE region GDP. To support a 4.6 percent GDP growth rate, as in the previous decade, investment would have to rise even further, to 5.1 percent of GDP through 2025, based on prevailing ratios of infrastructure assets to GDP around the world (Exhibit 32).⁹⁸

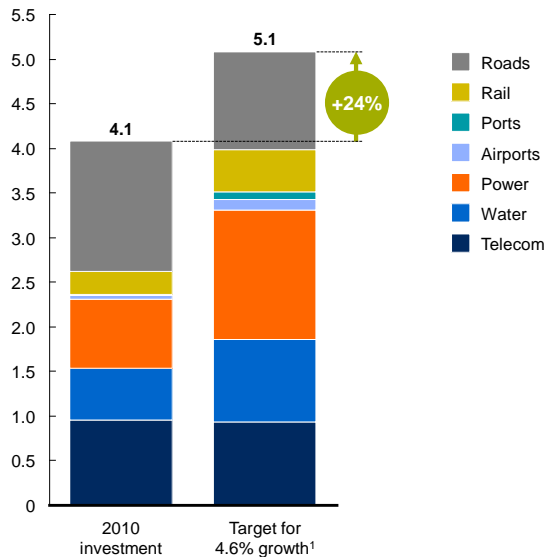
In particular, investments in roadways are needed to raise productivity in trucking, support expansion of food exports, and speed the overall flow of goods across and outside the region. Raising infrastructure spending in the immediate future will be extremely challenging. Not only is public spending capacity constrained across the eight CEE economies, but European Union funds for infrastructure projects also have been drastically reduced. Funding for the current EU infrastructure development program, which runs to 2020, was cut from \$50 billion (€36 billion) to \$29 billion (€21 billion), severely limiting assistance for roads, energy lines, and telecommunications network expansion.⁹⁹

98 See *Infrastructure productivity: How to save \$1 trillion a year*, McKinsey Global Institute, January 2013.

99 Exchange rate on October 30, 2013.

Exhibit 32**To reach an “aspirational” growth target, CEE economies would need to raise annual infrastructure investment by more than 20 percent**

Estimates of needed infrastructure investments, 2013–30 vs. 2010 actuals
% of GDP



¹ In line with historical growth rates.

NOTE: Based on six CEE countries, excluding Slovenia and Croatia.

SOURCE: IHS Global Insight; International Energy Agency; International Transport Forum; Global Water Intelligence; McKinsey Global Institute analysis

To pursue infrastructure improvements, even under tight fiscal constraints, CEE governments can use proven tactics to raise the productivity of infrastructure investments: improving project selection, streamlining project delivery, and raising the capacity of existing infrastructure rather than undertaking the expense of adding all-new road or ports or rail lines. Together such measures have been shown to achieve the same infrastructure outcomes at a cost reduced by as much as 40 percent.¹⁰⁰

- Improve project selection.** The United Kingdom set up a cost review program that identified 40 major projects for prioritisation, reformed overall planning processes, and created a cabinet subcommittee to oversee and ensure quicker delivery of projects. These measures reduced spending by as much as 15 percent. To improve project selection in South Korea, the government created the Public and Private Infrastructure Investment Management Centre. It saved 35 percent of its infrastructure budget by rejecting 46 percent of project proposals, compared with the 3 percent that were rejected before the centre was established.

¹⁰⁰ *Infrastructure productivity: How to save \$1 trillion a year*, McKinsey Global Institute, January 2013.

- **Streamline the delivery of infrastructure projects.** Completing projects on time and within budget can save as much as 15 percent of the investment cost. Streamlining involves simplified approval and land acquisition processes, contracts that foster cost savings by encouraging contractors to use advanced construction techniques, and more careful management of contractors. One Scandinavian road authority reduced overall spending by 15 percent by changing standards for road design, using lean construction techniques, and bundling the purchases of materials and sourcing them internationally.
- **Manage demand and optimise usage and maintenance of existing capacities.** Too often governments rush to build new infrastructure instead of more effectively using what they already have, such as by managing demand to match capacity. Demand management through congestion pricing has been used successfully in London and other cities and is becoming more effective with better monitoring technology. This could help extend the life of roadways in CEE countries and limit the productivity lost to traffic congestion. Warsaw was ranked the second most congested city on the continent in TomTom's 2012 index. Road quality varies considerably from country to country. In World Economic Forum competitiveness statistics, the region averages 3.7 on a 1 to 7 scale, compared with 6.0 for Germany and 4.4 for Italy. Croatia and Slovenia score very high (5.5 and 5.1, respectively), while Romania is rated 2.1 and Bulgaria 2.9.¹⁰¹
- **Improve infrastructure governance.** CEE economies may need to update infrastructure governance, a root cause of poor productivity in infrastructure investing. Government departments responsible for land, water, and air transport need to work closely together locally, regionally, and internationally. Politicians need to set the strategic direction for investment in infrastructure, but qualified independent experts need to put strategy into practice. Governments need to make sure stakeholders participate early on, and in meaningful ways. In Stockholm, for example, congestion charging was initially launched as a test, then briefly suspended to show the effects. After that, citizens voted in favour of permanent adoption.

101 *Global competitiveness report 2013–2014*, World Economic Forum, 2013.

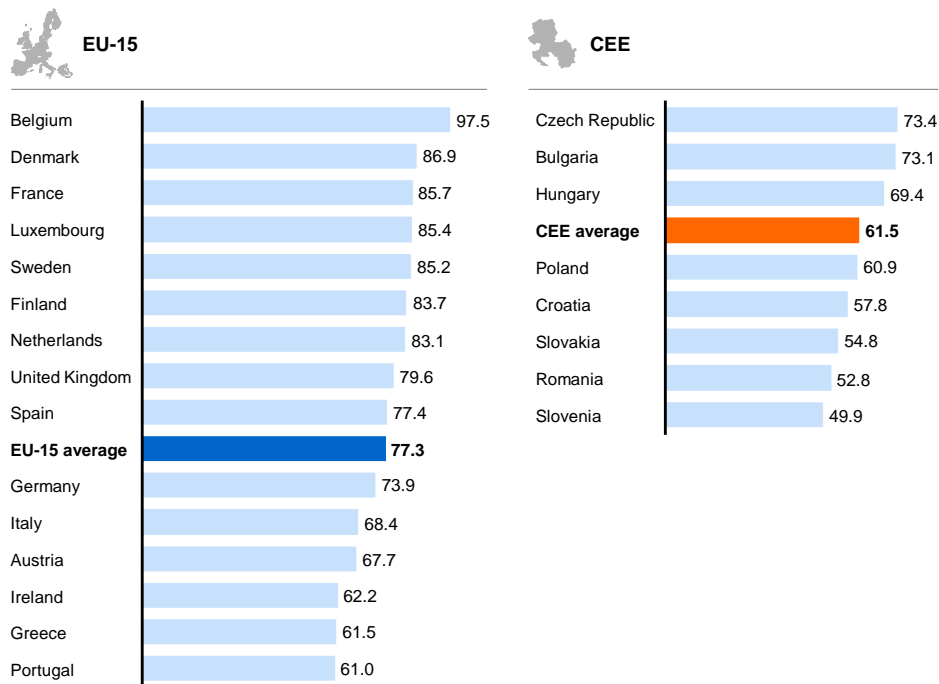
ENABLE FURTHER URBAN DEVELOPMENT

CEE countries are significantly less urbanised than the rest of the European Union, with only 62 percent of CEE residents living in cities, compared with 77 percent in the EU-15 (Exhibit 33). Urbanisation is even lower in the larger countries in the region: Poland is 61 percent urbanised, and Romania is only 53 percent urbanised. The United Nations estimates that urbanisation in the CEE region could rise to 70 percent by 2030, when it figures that EU-15 urbanisation rates could reach 81 percent.¹⁰² Enabling further urbanisation can have strong effects on growth and productivity. While urbanisation has advanced in other parts of the world, it has stagnated in the CEE region, rising from 61 percent to 62 percent since 1990. By contrast, China has built dozens of new cities and raised its urbanisation rate from 26 percent in 1990 to 51 percent in 2011.

Exhibit 33

Urbanisation rates in CEE nations average 62 percent compared with 77 percent in the EU-15

Share of urban population
% of total population



SOURCE: World Bank; World Development Indicators; McKinsey Global Institute analysis

¹⁰² *World population prospects: The 2004 revision and World urbanisation prospects: The 2005 revision*, United Nations Population Division, October 2006.

In general, high levels of urbanisation are associated with higher wealth, and there is a sharp disparity between the productivity of urban and rural areas, which affects national productivity and growth.¹⁰³ For example, the 32 percent of CEE population who live in cities with populations of more than 200,000 contribute 46 percent of the region's GDP.¹⁰⁴

Urbanisation is important to the expansion of several industries, such as modern retail. As noted, raising the percentage of modern stores could increase sector productivity, but these formats require a population density not available in sparsely populated areas. Higher levels of urbanisation can also help the development of productive service businesses, which can reach a larger base of potential customers. In addition, in urban areas, incomes and consumption tend to be higher, helping businesses to grow and operate productively.

For governments, the costs of providing infrastructure—such as public transportation, water, and electricity—and providing health care, education, and other services can be less per capita thanks to higher densities. Some initiatives to enable further urbanisation are listed below. However, it is important to bear in mind that the process is lengthy and requires sustained public-sector commitment:

- **Remove barriers to rural-urban migration.** Some policies aimed at assisting distressed rural areas can have the effect of keeping people from moving to urban areas. Policy makers can adjust such policies to strike a balance between preserving a nation's rural heritage and pursuing the benefits of urbanisation.
- **Invest in infrastructure.** Transportation infrastructure investments are critical to both urban and economic growth. Efficient urban transportation networks need to accommodate travellers within a city, between cities and their suburbs, and between cities. In addition, better transportation links between rural and urban areas can give rural populations better access to education, health care, and employment.
- **Improve local governance.** Because urbanisation is complex and entails solving problems for each location, the process is often more efficient when local governments have a high level of autonomy and accountability. To deliver the benefits of economies of scale while minimising the hazards of rapid growth, cities need to use professional planning and coordination, together with capable and accountable employees who can implement urbanisation initiatives. They also need to have a clear vision and plan for growth to begin with.

Any of the measures enabling further urbanisation should be taken in coordination with all stakeholders—local and city governments, and developers, as well as both rural and urban residents. Urbanisation must be planned and managed carefully to avoid common challenges such as congestion, poverty, and pollution.

103 David Bloom et al., "Urbanisation and the wealth of nations", *Science*, volume 319, number 5864, February 2008.

104 Cityscope 2.0, McKinsey Global Institute.

IMPROVE REGULATORY SYSTEMS AND INSTITUTIONS

To help revive the flow of foreign direct investment into CEE economies and to encourage expansion and new business formation by business owners and entrepreneurs within the region, the CEE governments can improve the business environment in several ways. They can streamline administrative and regulatory processes, strengthen legal protections for investors, and address corruption and informality.

- **Streamline administrative processes.** The World Bank's World Development Indicators report highlights the issues that confront businesses in CEE economies. For instance, it takes 58 days, on average, to register a property in a CEE country, compared with 25 days in EU-15 countries; it takes 15 days to export goods from CEE nations and 17 days for imports to get to CEE destinations, compared with ten days for imports and exports in the EU-15.¹⁰⁵ Aside from Slovenia, which has risen from 35 to 63 in the World Bank's Doing Business index, most CEE countries have not moved up in the rankings since they were first issued in 2005.¹⁰⁶ Slovenia reduced the time to start a business from 60 days to six, cut the time to register a property by two-thirds, and reduced corporate tax rates by more than 10 percent. The Czech Republic fell more than 20 places in the rankings, following revelations of corruption and complaints about the performance of the government bureaucracy. The survey has been shown to correlate with FDI, indicating that CEE countries would benefit by making renewed efforts to improve their attractiveness to global investors.¹⁰⁷

Latvia stands as an example of what countries can do to improve their business environments by addressing administrative and regulatory issues. Latvia transformed its institutions dramatically to prepare for entry into the EU and has continued improving its regulatory processes since admission. In 1999, opening a business took 17 procedures and 114 days. By 2004, it took five procedures and 16 days. Latvia made similar improvements on processes for construction permits and on taxes, credit protections, and rules requiring disclosure to investors. It now ranks 25 globally on the "Ease of Doing Business" list, ahead of Switzerland.

- **Improve the effectiveness of the legal system.** The CEE legal systems passed the tests required to enter the EU over the past decade. Yet, according to surveys of foreign investors, there are still concerns about legal protections and the ability to enforce contracts. The World Bank finds some weaknesses in legal protections in all CEE countries.¹⁰⁸ In five out of eight CEE countries, for example, enforcing contracts is a lengthy and complicated process; average time required to enforce a contract across the CEE region is 666 days, 150 days more than in the EU-15. Investor protections and resolution of insolvencies are also areas that could be improved. On average, it takes three years to resolve an insolvency case in a CEE country, compared with less than 18 months in the EU-15.¹⁰⁹ Hong Kong,

105 *World development indicators 2012*, World Bank, 2011.

106 *Doing business 2013*, World Bank and International Finance Corporation, 2012.

107 John Anderson and Adrian Gonzalez, *Does Doing Business matter for foreign direct investment?* World Bank, 2012.

108 *Doing business 2013*, World Bank and International Finance Corporation, 2012.

109 *World development indicators 2012*, World Bank, 2011.

Singapore, Sweden, and the United States all offer best-practice examples for settling insolvencies efficiently. Speeding the resolution of contract disputes may require establishment of specialised commercial courts that can make rapid decisions, and use of electronic filing and tracking systems to manage complaints.

- **Update legislation and strengthen regulatory frameworks.** It may not be sufficient to make regulatory processes more efficient. To boost productivity in some important sectors, CEE governments will need to further harmonise their laws with EU standards and strengthen the functioning of institutions. This would include adopting EU laws to simplify and automate land registry and allow foreign entities to buy land, which would attract multinational and foreign investors that can bring state-of-the-art technology and advanced know-how to CEE agriculture. To increase competition and improve productivity in network industries such as postal services and railways, CEE economies can also adopt regulatory frameworks that have enabled greater productivity in other nations.
- **Address corruption and informality.** CEE nations must make greater efforts to reduce corruption and informality. While the severity of the problem varies across the region, no CEE nation gets top scores from Transparency International on measures of corruption.¹¹⁰ The Czech Republic scored well in international assessments until the mid-2000s, but the country's reputation was damaged by a series of corruption cases that made international news and increased concerns among international investors. To limit corruption, CEE governments should use some of the measures recommended by Transparency International: regulation of political party financing, mandatory registration of lobbyists, ethics codes for elected officials, and legal protections for whistle-blowers.¹¹¹
- **Improve institutional capabilities.** Even with the best policies and a strong commitment by government leaders, improved performance of regulatory regimes cannot be expected without strengthening the institutions that must carry out policies and enforce regulations and laws. CEE nations can invest in capability building in the various ministries and departments that are responsible for implementing policy and enforcing regulations. On the World Bank's Government Effectiveness Index, which measures quality of civil service and quality of policy formulation and implementation on a scale from -2.5 to 2.5, CEE governments score very diversely, but with an average grade of 0.57. At 1.02, Slovenia is the best performer, while Romania is the worst at -0.31.¹¹² Among Western European countries, Germany scores 1.53, France 1.33, and Italy only 0.41. In other parts of the world, performance improvement programs in public-sector agencies have proved effective. Public-sector organisations can become more productive by adopting best practices. These include setting strategic goals for the organisation as well as measurable goals for managers and employees, and following up with performance evaluations of progress on agreed metrics.

110 Suzanne Mulcahy, *Money, politics, power: Corruption risks in Europe*, Transparency International, June 2012.

111 Ibid.

112 *Worldwide Governance Indicators*, World Bank, 2012.

INVEST IN LABOUR FORCE SKILLS

Central and Eastern Europe have extensive education systems and relatively well-educated populations. However, despite the region's success to date in providing high-skill labour to knowledge-intensive industries, CEE economies will need to make additional investments in education and training to create the labour force it needs to move up the manufacturing and services value chain and compete successfully with other developing economies with similar ambitions. To prevent a skills gap, CEE nations will need to make sure that university curricula and vocational training are aligned with the needs of key industries. In addition to bringing young people into the labour force with the right skills for tomorrow's jobs, CEE nations can try to fill the current gap in managerial talent through training and by finding ways to bring back professionals who have emigrated to Western Europe and elsewhere. Building the workforce needed for the 21st century involves improving secondary and tertiary education, as well as strengthening managerial skills to support the public and private sectors. Many of these efforts will require the participation and collaboration of public- and private-sector players.

- **Improve quality of education.** While CEE nations have good levels of educational attainment, the quality of education can be improved. In PISA exams, which test the knowledge of 15-year-old students, CEE students lag behind the 493 average of OECD nations: 424 in Romania, 429 in Bulgaria, and 476 in Croatia, for example. Only Poland scores above the OECD average, at 500.¹¹³ In post-secondary education, CEE institutions are ranked below universities in Western Europe. Only seven CEE universities rank within the Shanghai Academic Ranking of World Universities global top 500, compared with 181 in Western Europe and 30 in the Asia-Pacific region.¹¹⁴ A troubling sign about the actual effectiveness of the education system is youth unemployment. Across the OECD countries, the average share of people aged 15 to 24 who are neither in education nor employed is 17.1 percent, but the rate in Poland is 26.7 percent and in Hungary, 28.4 percent.¹¹⁵

Overall, the Central and Eastern Europe education system is not geared towards producing workers with skills that employers require. Education systems in CEE countries often focus more on raw knowledge acquisition than on equipping the workforce with skills for the new knowledge economy.¹¹⁶ To produce workers with the right knowledge and skills, educational institutions need to collaborate more with local companies and other stakeholders to define curricula and job requirements. In Brazil, the new government-led Oil and Gas Industry Mobilisation Program (Prominp) is bringing together companies, universities, and unions to coordinate actions to improve education and training to provide workers with the skills to keep the nation competitive in oil and gas.

113 OECD, *2009 PISA results*, www.oecd.org/pisa.

114 *2013 academic ranking of world universities*, Center for World-Class Universities at Shanghai Jiao Tong University, August 2013.

115 OECD, *March 2012 youth (age 15–24) unemployment rates*, www.oecd-library.org.

116 Lars Sondergaard and Mamta Murthi, *Skills, not just diplomas: Managing education for results in Eastern Europe and Central Asia*, World Bank, 2012.

- **Improve vocational training.** In addition to addressing gaps in secondary and post-secondary education, CEE nations can benefit from investments in vocational training. Youth unemployment is particularly high among workers who have not completed secondary education. Vocational training is a proven solution for school-leavers to earn qualifications that help them obtain employment. The Swiss system provides a good example. Two-thirds of students graduating from secondary schools attend Swiss vocational schools, which cover 230 types of occupations and are supported by 30 percent of companies. The Swiss vocational training system is intended to ensure a match between skills supply and demand; it relies on input from potential employers to help define needed skills and the government oversight of certifications.
- **Match labour supply with market demand.** Skill gaps arise and workers have difficulty finding employment when it is not clear what skills are in demand. In France, for example, by 2020, there could be 2.3 million more workers without bachelor's degrees than the labour market can use, while there could be 2.2 million too few candidates with bachelor's degrees for the jobs employers need to fill.¹¹⁷ Students should know which subjects in vocational and post-secondary institutions lead to employment and what levels of income graduates attain. Schools can publish performance data that lets employers see what skills graduates have. School performance data such as test scores can also be used by students to make better-informed choices about schools to attend and by government to manage educational institutions. Performance data can also be used to create goals and incentives for faculty and administrators.
- **Develop management skills.** CEE economies already face a skill gap in managerial talent. A near-term solution would be to lure back CEE professionals who have emigrated to Western Europe and elsewhere and bring their skills and experience back to their home economies. According to the OECD, more than 10 percent of CEE residents with tertiary degrees have emigrated. In Hungary and Romania, the emigration rates for college-educated residents may be twice as high as for all residents.¹¹⁸ China successfully encouraged emigrants to return by introducing preferential policies for their families, providing job search support, and encouraging local governments to compete for international talent. Other measures that have been used in other regions include lower income tax rates and subsidised housing.
- **Extend and improve on-the-job training.** In a context of increasing international competition, CEE companies need to raise the skills of their workers continuously. Because skilled labour is relatively scarce, on-the-job training is an important tool to raise skills and foster productivity. More than 40 percent of CEE firms offer some kind of on-the-job training, which compares well with the EU-15, but in most cases, these are relatively unstructured and ad hoc.¹¹⁹

117 *French employment 2020: Five priorities for action*, McKinsey Global Institute, May 2012.

118 *Migration—challenges and policies*, CESifo DICE Report 4/2011, Ifo Institute, 2011.

119 *World development indicators 2009*, World Bank, 2008.

SUPPORT GROWTH THROUGH R&D AND INNOVATION

To enable CEE economies to move up the value chain in knowledge-intensive manufacturing and service industries, the region needs to raise investment in research and development and create an environment in which innovative entrepreneurial companies can flourish. This will require building up the clusters that have developed around knowledge-intensive manufacturing, improving collaboration between industry and CEE research institutions, and putting in place the financing and support infrastructure that enables innovative startups to grow into globally competitive companies.

- **Establish manufacturing and engineering clusters.** CEE clusters today are focused on manufacturing, using low-wage labour to build products that are designed and developed in Western Europe, Japan, and South Korea. Overall, CEE countries invest about 0.9 percent of GDP in R&D, compared with 2.1 percent in the EU-15 and 1.4 percent in the BRIC economies. To raise the level of work performed in CEE clusters and increase R&D activity, CEE economies can increase collaboration between businesses and universities. The World Economic Forum gives CEE countries 3.6 points on a scale of 1 to 7 for R&D collaboration between businesses and universities, compared with 4.7 for the EU-15. The low level of collaboration suggests that businesses currently do not derive significant benefits from university research, limiting innovation. CEE governments can use financial incentives to raise the level of collaboration between businesses and universities and among businesses. Sweden, which spends 3.7 percent of GDP on R&D, offers research grants to companies, universities, institutes, and collaborative networks through the state Vinnova agency. It requires that its grants be matched by other organisations, helping to promote cross-fertilisation of ideas across institutions.
- **Become an R&D hub for multinationals.** CEE countries are beginning to gain some traction in outsourced R&D and engineering work, which are the fastest-growing category of O&O in the region. India and China, however, have been more aggressive in their efforts to become R&D hubs for multinational enterprises. These efforts include links to leading universities to help support private R&D.
- **Enable academic-business cooperation via joint research centres.** Collaboration can be stimulated by the establishment of joint research centres within leading universities so that industry can have access to leading researchers. In Brazil, the Federal University of Rio de Janeiro set up a technological park where research is done jointly with energy companies such as Petrobras and Schlumberger. In Germany, the Fraunhofer institutes play an important role in business-oriented research and innovation and have been a template for recent initiatives in the United Kingdom and the United States. In the CEE region, such hubs could focus on improving productivity in automotive manufacturing.
- **Encourage innovative startups with business incubators.** Many places have tried (and failed) to be the next Silicon Valley, but some countries have succeeded in putting in place the access to capital and expertise that can nurture entrepreneurs. In CEE countries, citizens manifest high desire to start a business (in a survey, 21 percent say they intend to launch a business, compared with 10 percent of EU-15 residents). However, only 5 percent

actually follow through, compared with 6 percent in the EU-15. Israel has implemented a series of policies to promote young, innovative companies, such as offering direct grants to startups. Companies can receive as much as 90 percent of research costs from the government, but successful companies are required to pay back the funds with a percentage of their future sales. Israel has established numerous business incubators, which began with public funding, but most of them are now private. It also supports research programmes, provided that they are partnerships between companies and universities.



The outstanding growth that the eight economies of the CEE region achieved in the years prior to the global financial crisis demonstrates their fundamental and enduring strengths. However, the advantages and resources of these economies need to be used in new ways to restore pre-crisis growth rates. This means maintaining a healthy trade balance, addressing productivity and investment issues in lagging sectors, and raising domestic savings while bringing back FDI. The effect of these moves can be a sustainable model that relies on greater investment-oriented growth rather than debt-driven consumption. In addition to carrying out the three major thrusts we identify, a successful growth model will also require investments in infrastructure, workforce skills, and other enablers, including raising labour force participation to offset the effects of ageing populations. Ultimately, these economies face a choice: to resume pre-crisis growth or accept a business-as-usual approach that will limit growth and improvement in living standards. We believe that as they did 25 years ago, the people of Central and Eastern Europe will rise to the challenge, use their talents and energy, and move their nations forward.



Bibliography

Anderson, John and Gonzalez, Adrian, *Does Doing Business matter for foreign direct investment?* World Bank, 2012.

Banking in Central and Eastern Europe and Turkey: Challenges and opportunities, European Investment Bank, January 2013.

Beyond austerity: A path to economic growth and renewal in Europe, McKinsey Global Institute, October 2010.

Bijsterbosch, Martin, and Marcin Kolasa, *FDI and productivity convergence in Central and Eastern Europe: An industry-level investigation*, European Central Bank working paper series number 992, January 2009.

Bloom, David, David Canning, and Günther Fink, “Urbanisation and the wealth of nations”, *Science*, volume 319, number 5864, February 2008.

CMS Cameron McKenna, *A guide to electricity markets in Central and Eastern Europe*, 2007.

Cullmann, Astrid, Juergen Apfelbeck, and Christian von Hirschhausen, *Efficiency analysis of East European electricity distribution in transition: Legacy of the past?* DIW Berlin, German Institute for Economic Research discussion paper number 553, 2006.

Dimova, Dilyana D., “The benefits of privatizing banks to strategic foreign investors: A survey of Central and Eastern Europe”, *Undergraduate Economic Review*, volume 2, issue 1, 2005.

Egan, Michelle, *Constructing a European market: Standards, regulation and governance*, Oxford Scholarship Online, 2003.

EU transport in figures—statistical pocketbook, European Commission, 2012.

European Commission and Economic Policy Committee, *The 2012 ageing report: Economic and budgetary projections for the 27 EU member states (2010–2060)*, February 2012.

The evolution of the European Postal Market since 1997, study for the European Commission, ITA Consulting, August 2009.

Geloso Grosso, Massimo, Anna Jankowska, and Frédéric Gonzalez, *Trade and regulation: The case of construction services*, OECD, December 2008.

Girmscheid, Gerhard, and Michael Kröcher, "Innovative sales concept and knowledge-platform for prefabricated building construction", presented at CIB World Building Congress in Cape Town, South Africa, May 14–18, 2007.

Greece 2021: Defining the new growth model and strategy for Greece, McKinsey Global Institute, May 2011.

Guidote, Maria Beatrice, "A case study on the car industry of the Czech Republic: Tracing FDI trends in Central and Eastern Europe after the 1990s", *Core fields of European culture III*, Socioeconomic Geography of the Central European Countries, December 2008.

Ifo Institute, CESifo DICE Report 4/2011, *Migration—challenges and policies*, 2011.

International Energy Agency, *Tackling investment challenges in power generation*, 2007.

McKinsey Global Institute, *Farewell to cheap capital? The implications of long-term shifts in global investment and saving*, December 2010.

McKinsey Global Institute, *Financial globalisation: Retreat or reset?* March 2013.

McKinsey Global Institute, *French employment 2020: Five priorities for action*, May 2012.

McKinsey Global Institute, *From austerity to prosperity: Seven priorities for the long term*, November 2010.

McKinsey Global Institute, *Infrastructure productivity: How to save \$1 trillion a year*, January 2013.

McKinsey Global Institute, *Lean Russia: Sustaining economic growth through improved productivity*, April 2009.

McKinsey Global Institute, *Manufacturing the future: The next era of growth and innovation*, November 2012.

McKinsey Global Institute, *Reaching higher productivity growth in France and Germany*, October 2002.

McKinsey Global Institute, *Sweden's economic performance: Recent developments, current priorities*, May 2006.

McKinsey Global Institute, *Trading myths: Addressing misconceptions about trade, jobs, and competitiveness*, May 2012.

McKinsey Global Institute, *Turkey: Making the productivity and growth breakthrough*, February 2003.

Measures concerning the European single market for electronic communications and to achieve a connected continent, European Commission, COM(2013) 627 Final, 2013.

Mulcahy, Suzanne, *Money, politics, power: Corruption risks in Europe*, Transparency International, June 2012.

“Nestlé’s milk district model: Economic development for a value-added food chain and improved nutrition”, *HBS Case Collection*, November 2005 (revised March 2006).

OECD and International Energy Agency, *Tackling investment challenges in power generation: In IEA countries*, 2007.

Palmer, Robert, *Skills and productivity in the informal economy*, International Labour Organisation, 2008.

Panorama of transport, Eurostat, 2009.

Poland 2000: From transition to new regulatory challenges, OECD, July 2002.

Pollitt, Michael, *Evaluating the evidence on electricity reform: Lessons for the South East Europe (SEE) market*, Economic and Social Research Council, 2008.

Raiffeisen Research, *CEE banking sector report*, May 2013.

Regulatory reform in the Czech Republic, OECD, 2001.

Schwab, Klaus, *Global competitiveness report 2012–2013*, World Economic Forum, 2012.

Schwab, Klaus, *Global competitiveness report 2013–2014, Full Data Edition*, World Economic Forum, 2013.

Statistical yearbook 2011, European Network of Transmission System Operators for Electricity, 2011.

Schneider, Friedrich, “The shadow economy and shadow economy labour force: What do we (not) know?” *World Economics*, volume 12, number 4, November 2011.

Sondergaard, Lars, and Mamta Murthi, *Skills, not just diplomas: Managing education for results in Eastern Europe and Central Asia*, World Bank, 2012.

“Stemming brain drain with the Grid in Southeast Europe”, *Natural Sciences Quarterly Newsletter*, volume 2, number 3, July–September 2004.

Teicholz, Paul, “Labour-productivity declines in the construction industry: Causes and remedies (another look)”, *AECbytes*, viewpoint number 67, March 14, 2013.

Thompson, Louis S., “Railways in Eastern Europe”, from *What Role for Railways in Eastern Europe*, European Conference of Ministers of Transport (ECMT) Roundtable 120, ECMT Conference in Cambridge, England, September 12–13, 2001.

UniCredit Group, *Residential real estate in CEE*, May 2008.

Winkelmann, Mark, Torben Schoenershoven, Eva Lauerbach, Olivia Dihel, Tim Ulrich, Antonia Niederpruem, Alex Dieke, and Petra Junk, *The evolution of the European Postal Market since 1997*, study for the European Commission and DG Internal Market and Services, ITA Consulting and Wik-Consult, August 2009.

Women and men in the informal economy: A statistical picture, International Labour Organisation, 2002.

World Bank and International Finance Corporation, *Doing business 2014*, 2013.

United Nations Population Division, *World population prospects: The 2004 revision* and *World urbanisation prospects: The 2005 revision*, October 2006.

Related MGI and McKinsey research



McKinsey Insights iPad app (September 2013)

This new app provides mobile access to the latest perspectives from McKinsey, MGI, and the *McKinsey Quarterly*. Our articles and reports address the most challenging issues facing senior leaders around the world, spanning countries, industries, and all business functions to examine leadership and corporate strategy to organisation, technology, marketing, and operations. The app allows you to browse and search articles, videos, and podcasts by theme, industry, function, region, and source; create personalised reading lists that are accessible offline; be notified when new content is published; and instantly share articles via email and social networks. The app is available from the Apple Store.



Urban World tablet app (May 2013)

An unprecedented wave of urbanisation is driving the most significant economic transformation in history, as the centre of economic gravity shifts decisively east. MGI's new app offers an intuitive sense of this new urban world, showcasing GDP, population, and income levels for more than 2,600 cities worldwide in 2010 and 2025. Available for iPad, iPhone, and Android, from all major app stores.



Investing in growth: Europe's next challenge (December 2012)

In this report, MGI looks in detail at the evolution of private sector investment over the past five years in Europe, and more broadly over the past 30 years in advanced economies. The aim is to provide a fact base that will help policy makers prioritise sectors where interventions to stimulate private investment are likely to be most effective. MGI provides five essential disciplines that policy makers should keep in mind in order to maximise the likelihood of their interventions being successful.



European growth and renewal: The path from crisis to recovery (July 2011)

Europe is growing again, but the recovery is uneven and under threat from the continuing Eurozone debt crisis. Europe has significant strengths on which to build but needs to address profound long-term challenges that could limit its future growth. MGI sets out a perspective on where the European economy stands, the challenges it faces, and the very considerable strengths on which it can build.



Beyond austerity: A path to economic growth and renewal in Europe (October 2010)

With multiple pressures on growth and constrained public finances, Europe needs structural reform even to match past GDP growth rates. Parts of Europe have begun to reform with demonstrable success. If the rest of Europe emulated their best practices, the region could add 4 to 11 percent to per capita GDP, without cutting holidays and leave.

www.mckinsey.com/mgi

E-book versions of selected MGI reports are available at MGI's website, Amazon's Kindle bookstore, and Apple's iBookstore.

Download and listen to MGI podcasts on iTunes or at www.mckinsey.com/mgi/publications/multimedia/

McKinsey Global Institute
December 2013
Copyright © McKinsey & Company
www.mckinsey.com/mgi

 @McKinsey_MGI

 McKinseyGlobalInstitute