

Slovak growth story: All about manufacturing

- The Slovak economy recorded the fastest rate of economic growth of all EU countries during 2001-2010. The high growth was mainly due to capital deepening and concomitant very fast labor productivity growth in manufacturing – this sector contributed almost with a half of growth of real value added during 2001-2010. Employment in the economy increased only slightly during the time period (+0.7%pa).
- Slovakia boasts the highest productivity of labor in Central and Eastern Europe in PPP terms both economy-wide and in manufacturing. If the Slovak economy operated at the Czech or Slovenian employment level, the country's GDP would be 12% higher than that of the Czech Republic and 2% higher than that of Slovenia. With a large buffer of the unemployed labor, Slovakia could relatively quickly surpass countries like the Czech Republic or Slovenia in GDP per capita in PPP, should additional investments in the future years take up the existing labor slack.
- Policies to improve the business environment, further improvements in the judicial system and a complex program towards creating knowledge-based economy together with the on-going fiscal consolidation would be the right response to lagging FDI recently. While the outcome of the general elections scheduled for 10 March is uncertain, the past resilience of this small country in light of its often thorny economic and political past over the last twenty years justifies our moderate optimism.

Slovakia is a top EU growth performer

After the problematic 1990's, the Slovak economy recorded some remarkable achievements in the past decade. On the growth count, it triumphed over all other EU countries with its average growth of 4.8% pa during 2001-2010. Its manufacturing output in real terms almost tripled during the decade recording astronomical labor productivity growth. The country's productivity of labor in PPP is the highest in CEE, both economy-wide and in manufacturing. With a large buffer of the unemployed labor, Slovakia could relatively quickly surpass countries like the Czech Republic or Slovenia in GDP per capita, should additional investments in the future years take up the existing labor slack

TOP 10 GROWTH PERFORMERS IN EU (2001-2010)¹

	Index 2000=100	CAGR 2000-2010 ²
Slovakia	159,7	4,8%
Lithuania	153,3	4,4%
Romania	149,2	4,1%
Bulgaria	148,8	4,1%
Poland	146,4	3,9%
Estonia	145,9	3,8%
Latvia	143,2	3,7%
Czech Republic	136,9	3,2%
Luxembourg	135,1	3,1%
Cyprus	132,1	2,8%

Source: Eurostat, UniCredit Research

Taping into recently published Eurostat data, in this brief note we break down the overall economic performance sector by sector trying to highlight the main driving forces of the Slovakia's performance during the past decade. Which sectors over-performed in terms of value added generation and which disappointed? Where was labor productivity growth the fastest and which sectors generated most jobs? Finally, what are the main challenges for Slovakia to sustain or come close to the growth dynamic from the past ten years?

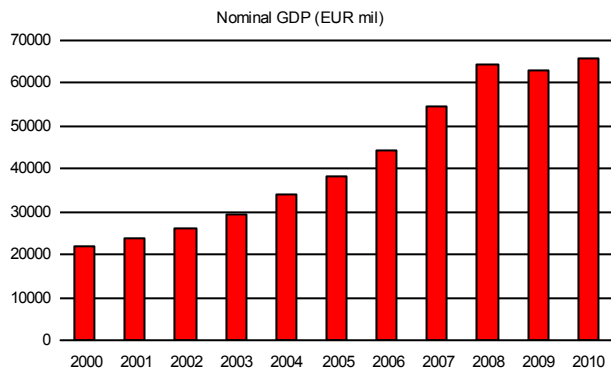
Slovakia as a latecomer

The economic transformation this small country has undergone in the past ten years is nothing short of remarkable. Slovakia was entering the past decade in the midst of the second transformational recession just as the new pro-market government of PM Dzurinda was embarking upon a complex reform agenda. Sweeping reforms of the first half of the decade left no problematic area untouched and have unleashed the economic potential of the country. An FDI boom followed triggering an economic take-off – in 2007 GDP growth reached double-digit levels.

During the period 2000-10, the overall nominal size of the economy in euro terms tripled from EUR 22bn to EUR 65.9bn (average growth 11,6% pa). This was due strong real economic growth (avg 4.8% pa) but also very fast real currency appreciation driven by productivity gains and inflow of capital. The headline economic numbers are well-known, but what were the driving forces of the fast growth on a sectoral level?

¹ Measured by the real GDP growth rates during 2001-2010

² CAGR – compound annual growth rate

SLOVAKIA'S NOMINAL GDP TRIPLED DURING THE PAST DECADE³


Source: Eurostat, UniCredit Research

Manufacturing the chief engine of growth

Breaking down the value added in the economy during the time period shows that the growth was to a large extent driven by the stellar performance of manufacturing. The average real growth of value added in manufacturing was 10.9% pa suggesting that this sector contributed almost half to the growth of real value added during the past decade (49.8ppt). The other two sectors which contributed most – e.g. they grew relatively fast and their weights in the economy are high – were construction (9.9ppt) and trade (9.4ppt). This means that nearly 70% of the growth of the value in the Slovak economy during the last decade was generated by these three large sectors! Other dynamic branches of the economy were art, entertainment and recreation (average 9.3% pa) electricity, gas, steam (6.5%) and information & communication (5.3%).

MANUFACTURING GROWING BY 10.9% ANNUALLY


Source: Eurostat, UniCredit Research

MANUFACTURING "CREATING" HALF OF THE GROWTH

Economic Sectors	CAGR 2010-2000	Share in Economy 2010 (constant prices)	Contribution to Growth 2010-2000
A - Agriculture	3,3%	2,9%	2,1
B - Mining and quarrying	2,0%	0,7%	0,3
C - Manufacturing	10,9%	29,3%	49,6
D - Electricity, gas, steam and air conditioning supply	6,5%	6,4%	7,8
E - Water collection, sewerage, waste management	-1,2%	0,8%	-0,3
F - Construction	5,9%	8,6%	9,9
G - Wholesale and retail trade	3,8%	11,4%	9,4
H - Transportation and storage	-4,2%	4,3%	-6,0
I - Accommodation and food service activities	-1,7%	1,0%	-0,5
J - Information and communication	5,3%	4,1%	4,3
K - Financial and insurance activities	4,8%	3,3%	3,2
L - Real estate activities	0,6%	6,7%	1,0
M - Professional, scientific and technical activities	4,3%	4,5%	4,0
N - Administrative and support-service activities	2,8%	2,2%	1,4
O - Public administration and defense; compulsory social security	2,9%	6,5%	4,2
P - Education	3,8%	3,2%	2,6
Q - Human health and social work activities	-0,2%	2,7%	-0,1
R - Art, entertainment and recreation	9,3%	2,2%	3,3
S - Other service activities	2,3%	0,9%	0,5
TOTAL VALUE ADDED	4,9%	100,0%	100,0

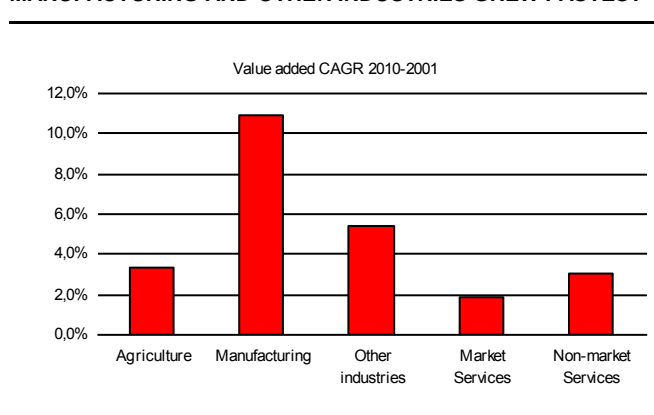
Source: Eurostat, UniCredit Research

³ Converted to Euro by the yearly market exchange rates

Manufacturing posting double-digit growth

We have also grouped the individual sectors into five groups of sectors: agriculture, manufacturing, other industries, market services and non-market services. The inspection of the data shows two groups of sectors reporting the highest growth were manufacturing (+10.9%) and other industries⁴ (+5.4%) while agriculture grew by a decent 3.3% (but registered a very high growth of labor productivity). Interestingly, the growth of market services was rather slow (+1.9% pa) negatively impacted by the recent (after 2008) poor performance of several market services (such as trade, transportation and storage and hotels and restaurants). If we calculated the growth of market services during 2000-2008 period the average rate of growth would have been much higher 4.2%. Weak domestic demand in recent years is clearly one of the main reasons for this sectoral development.

MANUFACTURING AND OTHER INDUSTRIES GREW FASTEST



Source: Eurostat, UniCredit Research

Cars and flat TV-screens the main production articles

As said above, manufacturing was the chief engine of the growth fuelled by the investment boom. However, not all sub-sectors within manufacturing performed the same – some sectors have boomed while others have stagnated. A glance at the table, which shows performance of manufacturing sub-sectors, reveals that the top 3 growth champions were 1. computer, electronic and optical products, 2. motor vehicles and 3. other transport equipment all registering average per annum growth of above 20%! Other six sectors – furniture; rubber and plastics; coke and refined petroleum products; fabricated metal products, machinery and equipment and wood products – reported the average growth rate above 10% pa.

On the other side of the spectrum, textile and leather production stagnated over the last decade while printing and basic metals showed relatively weak growth rates (2.4% and 3.0% pa resp.).

The two main articles the Slovak manufacturing sector produces are flat-screen TVs and cars – they together account for about 20% of real value added in manufacturing. While this is no small number, it is not as high as is often presumed or the impression one gains from anecdotal evidence. Furthermore, going forward, we do not expect this figure to further increase. Rather, we expect the Slovakia's manufacturing base to become more diversified.

ELECTRONICS AND CARS GROWING BY OVER 20% PA

Manufacturing sub-sectors	CAGR 2010-2000	Share in Mfg 2010 (constant prices)	Contribution to Mfg Growth 2010-2000
Computer, electronic and optical products	26,2%	8,5%	11,8
Motor vehicles, trailers and semi-trailers	21,2%	12,8%	17,0
Other transport equipment	20,3%	1,0%	1,3
Furniture; other manufacturing	16,3%	3,5%	4,3
Rubber and plastic products	16,1%	5,2%	6,2
Coke and refined petroleum products	13,6%	8,1%	9,1
Fabricated metal products	13,5%	10,1%	11,2
Machinery and equipment n.e.c.	13,1%	6,8%	7,5
Wood and of products of wood (except furniture)	12,1%	3,3%	3,5
Chemicals and chemical products	9,9%	4,9%	4,6
Electrical equipment	9,4%	3,7%	3,4
Food products, beverages, tobacco	9,3%	8,4%	7,7
Repair and installation of machinery and equipment	8,6%	3,6%	3,1
Basic pharmaceutical products	7,8%	1,2%	1,0
Paper and paper products	7,7%	2,7%	2,2
Non-metallic mineral products	5,3%	4,4%	2,8
Basic metals	3,0%	7,5%	2,9
Printing and reproduction of recorded media	2,4%	1,1%	0,4
Textiles, wearing apparel, leather and related products	0,1%	3,3%	0,1
MANUFACTURING TOTAL	10,9%	100,0%	100,0

Source: Eurostat, UniCredit Research

We have also grouped the manufacturing sectors according to technological intensity based on NACE 2. The data show that during the last ten years Slovakia substantially increased the share of high and medium-high technology production. The average annual growth of high tech production was 21,5% and that of medium-high technology was 14,6%. We expect the technological sophistication of Slovak manufacturing to keep increasing going forward.

⁴ Other industries include mining and quarrying (B), utilities (D,E) and construction (F).

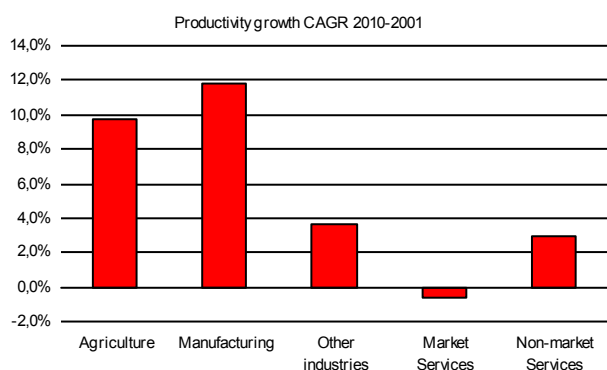
NEARLY 40% OF SLOVAK MANUFACTURING HIGH OR MEDIUM-HIGH TECH

	2000	2010	CAGR 2010-2001
High tech	3,9%	9,6%	21,5%
Medium-high tech	20,9%	29,2%	14,6%
Medium-low tech	45,1%	38,9%	9,2%
Low tech	30,1%	22,4%	7,7%
Total	100%	100,0%	10,9%

Source: Eurostat, UniCredit Research

Productivity gains led by manufacturing and agriculture

During the past ten years most of the sectors of the Slovak economy recorded strong productivity gains. This was possible due to significant imports of new technology and improvements in the managerial and organizational techniques brought about by FDI. At the aggregate level the increase in real labor productivity reached 4.2 % on average. This aggregate number masks significant differences on the sectoral level. The labor productivity was fastest growing in two traditional sectors – agriculture and manufacturing. Interestingly, Slovak agriculture was able to register nearly double-digit productivity gains (average growth 9.7% pa) and Slovak agricultural workers now achieve by far the highest productivity level in Central and Eastern Europe. This growth or productivity is trumped only by manufacturing productivity growth which was nearly 12% on average during the past decade. On the other hand, productivity in market services declined by -0.6% CAGR (mostly due to unfavorable developments after 2008).

MANUFACTURING ANNUAL PRODUCTIVITY GROWTH AVERAGED NEARLY 12%


Source: Eurostat, UniCredit Research

Looking at the labor productivity growth in manufacturing subsectors, three sectors reported average annual labor productivity growth above 20% and additional ten sectors productivity growth above 10% pa. The productivity surge in the Slovak manufacturing during the last ten years has been truly remarkable! **Slovakia's strong manufacturing base can be its competitive advantage and conduce to fast income growth going forward – manufacturing sector traditionally reports higher productivity growth than other sectors such as services.**

TRANSPORT EQUIPMENT, ELECTRONICS AND REFINERY PRODUCTS REPORTING HIGHEST PRODUCTIVITY GROWTH

Manufacturing sub-sectors	Average annual productivity growth 2010-2001
Other transport equipment	24,1%
Computer, electronic and optical products	22,3%
Coke and refined petroleum products	21,0%
Machinery and equipment n.e.c.	16,5%
Chemicals and chemical products	16,2%
Furniture; other manufacturing	15,2%
Basic pharmaceutical products	14,8%
Food products, beverages, tobacco	13,6%
Paper and paper products	11,7%
Rubber and plastic products	11,6%
Motor vehicles, trailers and semi-trailers	11,0%
Fabricated metal products, except machinery and equipment	10,5%
Wood and of products of wood (except furniture)	10,0%
Electrical equipment	9,6%
Repair and installation of machinery and equipment	9,3%
Non-metallic mineral products	9,1%
Textiles, wearing apparel, leather and related products	7,1%
Basic metals	5,6%
Printing and reproduction of recorded media	1,2%
MANUFACTURING TOTAL	11,8%

Source: Eurostat, UniCredit Research

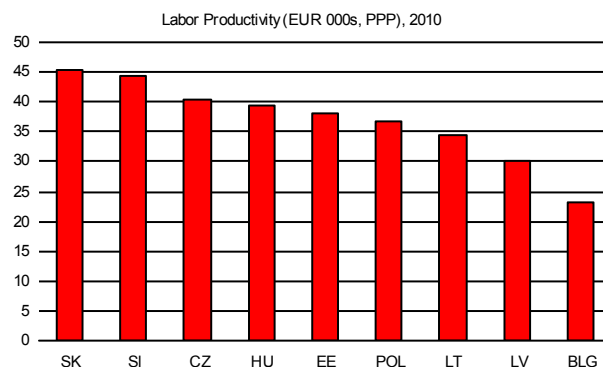
The two sectors which saw the highest productivity gains during the past ten years – manufacturing and agriculture – released labor on net during the time period (avg. -5.8% pa and -0.8% resp.) The highest growth in terms of employment was seen in market services (+2.5%pa) with professional & scientific services (+4.3% pa), trade (+3.6%pa) and administrative and support services (+3.0% pa) registering the highest job generation. Other industries (+1.7%pa), construction in particular also generated a high job growth (+4.2%) while employment in non-market services stagnated.

EMPLOYMENT GROWTH BY SECTORS

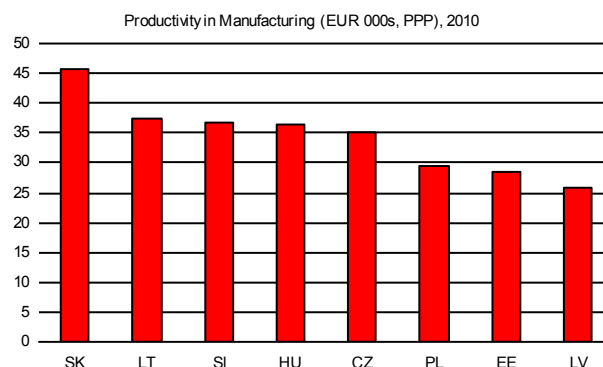
Sectors	2010/2000	2010/2000
	%	thousands
A - Agriculture	-5,8%	-56,8
B - Mining and quarrying	-6,6%	-7,3
C - Manufacturing	-0,8%	-37,4
D - Electricity, gas, steam and air conditioning supply	-3,6%	-8,8
E - Water collection, sewerage, waste management	-3,2%	-8,9
F - Construction	4,2%	61,9
G - Wholesale and retail trade	3,6%	114,7
H - Transportation and storage	-0,4%	-5,7
I - Accommodation and food service activities	2,6%	15,5
J - Information and communication	1,3%	5,9
K - Financial and insurance activities	0,8%	3,2
L - Real estate activities	1,8%	3,8
M - Professional, scientific and technical activities	4,3%	40,0
N - Administrative and support-service activities	3,0%	21,1
O - Public administration and defense; compulsory social security	1,6%	22,1
P - Education	-0,7%	-12,5
Q - Human health and social work activities	-0,8%	-11
R - Art, entertainment and recreation	-0,9%	-2,1
S - Other service activities	2,6%	7,4
TOTAL EMPLOYMENT	0,7%	+145,1

Source: Eurostat, UniCredit Research

We have compared the labor productivity adjusted for PPP across the CEE universe in 2010. The data shows that Slovakia is a productivity leader both when comparing the whole economies and also in its strongest sector, manufacturing. We also conducted a following thought experiment: we calculated what GDP per capita Slovakia would generate if it employed its labor at the same rate as do the two countries in CEE which have a higher GDP per capita, Slovenia and Czech Republic. Of course, this calculation is simplification because it assumes that average labor productivity of those to be employed is equal to that of those already employed. The results are nevertheless staggering - Slovak GDP per capita in PPP would be 12% higher than that of the Czech Republic and 2% higher than that of Slovenia (at these two countries' respective employment levels).

SLOVAKIA IS A LABOR PRODUCTIVITY LEADER IN CEE


Source: Eurostat, UniCredit Research

SLOVAKIA WITH A CLEAR LEAD IN LABOR PRODUCTIVITY IN MANUFACTURING IN CEE


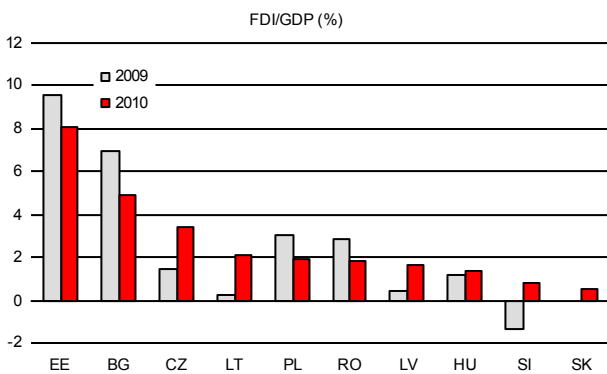
Source: Eurostat, UniCredit Research

This experiment clearly shows one potential avenue for a future fast income growth in Slovakia – expansion of the currently low employment level. Given the very high productivity of the Slovak labor force if additional investments in the future years – especially if taking place in higher value-added sectors - take up the labor slack, Slovakia could relatively quickly become the richest CEE country! At least by official GDP per capita (PPP) metric...

Policies to spur FDI inflow necessary to keep the growth dynamic

What are the policies which would be conducive to further investment growth? Since 2009, Slovakia has been lagging behind other CEE countries in the inflow of FDI. Policies to improve the business environment (such those contained in the government’s Singapore project), further improvements in the judicial system and a complex program towards creating knowledge-based economy together with the on-going fiscal consolidation would be the right policy response.

SLOVAKIA LAGGING IN FDI RECENTLY



Source: Eurostat, UniCredit Research

General elections scheduled for 10 March this year will reveal whether the elected government will be committed to such reform undertakings. While the outcome of the elections is uncertain, resilience of this small country in light of its often thorny but ultimately rewarding economic and political path which it has travelled over the last twenty years justifies our moderate optimism.

Stay tuned for more from Slovakia and its politics!

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