

SECTORAL SPECIALISATION IN THE SR

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Introduction

Sectoral specialisation in the broader context is understood as the degree to which employment and added value are concentrated in the sectors of one country's economy in comparison with those of another. Its influence may be seen:

- in the development of labour productivity and the business cycle,
- in the level of overall inflation with regard to different price levels and the weighting of individual sectors,
- through the transmission mechanism, via which monetary policy interventions influence the inflation level.

On the basis of the economic theory of endogenous growth, sectoral specialisation has an important effect on productivity from the long-term aspect. Individual sectors may differ in their production potential, which depends primarily on their degree of technological advancement, on savings from large-scale production and on the degree of regulation on the part of the state's economic policy. Structural changes, where resources are shifted from sectors with low labour productivity into more productive sectors, are an impulse for faster economic growth in the long term.

Sectoral specialisation may influence economic growth also in the short term. Development in individual sectors may differ from the aspect of the whole economy's business cycle, depending on the interconnectedness of sectors, or their integration in global trade. For example, the different production and product characteristics of a sector (product life, importance of supplies, capital demands of production) can lead to different reactions from the individual sectors to structural shocks in the economy. The result is a varied length and amplitude of business cycles of individual countries, as well as their synchronisation, which differs between individual states.

The mutual co-ordination of economic and monetary policy, interconnection of macro-economic policy and micro-economic restructuring together with reform of a deformed institutional framework can create in Slovakia an environment conducive to long-term sustainable economic growth and better use of human capital. This can be helped by an understanding of the structural development of the SR economy in connection with the

effect of both domestic, as well as external factors, where Slovakia's accession to the European Union plays an important role.

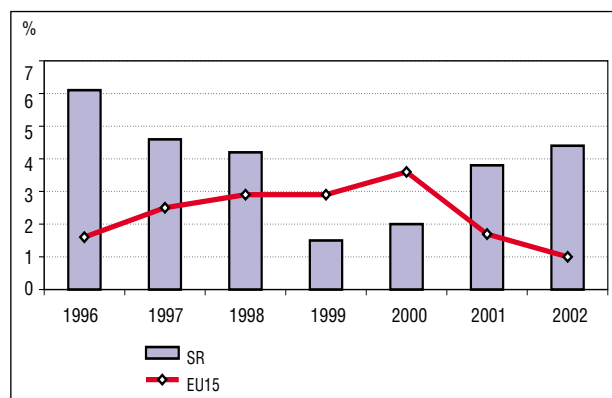
1. Structural aspects of Slovakia's economic development

This article analyses the development of the sectoral structure of the Slovak economy on the basis of value added, employment and labour productivity and compares them with the average data for the European Union, which at the time of processing covered 15 countries (i.e. those before 1 May 2004). With regard to the limited availability of data for EU countries, the basis of the analysis is the period 1996 – 2002. These data have been used also in the second part of the article, in calculating structural indicators for the SR.

For the purposes of the analysis, the data was aggregated into six sectoral categories:

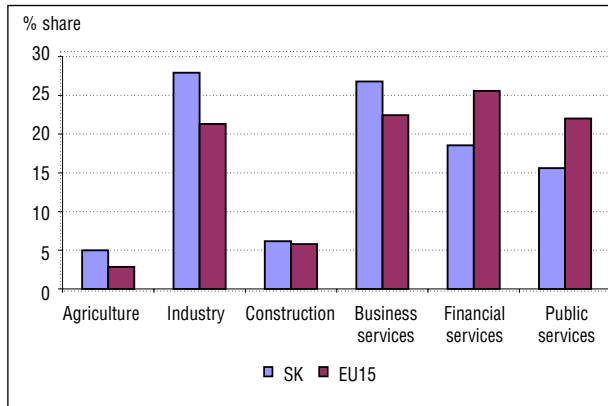
- agriculture (farming, hunting and forestry; fishing, fisheries),
- industry (mining and quarrying; manufacturing, electricity; gas and water supply),
- construction,
- business services (wholesale and retail trade, repair of motor vehicles and personal goods; hotels and restaurants; transport, storage, posts and telecommunications),
- financial services (financial intermediation; real estate, renting and business activities),
- public services (public administration and defence; compulsory social security; education; healthcare and

Graph 1 Real GDP in the SR and EU15





Graph 2 Added-Value Weightings of the SR and EU15



Source: OECD, average 1996 – 2002, NBS recalculations from volumes at current prices of individual countries

growth. Over the period 1999 – 2000, under the influence of a decline in real wages and domestic demand, real economic growth slowed and its gradual acceleration in the further period was connected with a recovery in consumption and investment. The development of the European Union economy differed when the five-year period of expansion up to 2000 was replaced in years 2001 and 2002 by a slowdown in GDP growth.

The sectoral structure of the Slovak economy shows that the relatively higher share of added value in the SR in comparison with the average structure of European Union economies is created in industry and agriculture. Where in the EU the share of services in added value created is on average 70%, in the SR services contribute to 60% to the total added value created.

SR – Structure of Added Value by Sector

(% , current prices)

	1996	1997	1998	1999	2000	2001	2002	average 1996 – 2002
Agriculture	5.6	5.6	5.3	4.7	4.7	4.5	4.5	5.0
Industry	31.1	27.4	27.1	29.1	27.6	26.7	26.4	27.9
Construction	7.5	7.1	7.1	5.5	5.4	5.0	5.4	6.2
Services total	55.8	59.8	60.5	60.7	62.4	63.7	63.7	60.9
Business services	24.1	26.3	26.9	26.9	27.6	28.9	26.8	26.8
Financial services	15.6	17.7	17.5	18.1	19.9	19.9	21.2	18.6
Public services	16.1	15.8	16.1	15.7	14.9	14.9	15.7	15.6

Source: NBS recalculations from OECD data

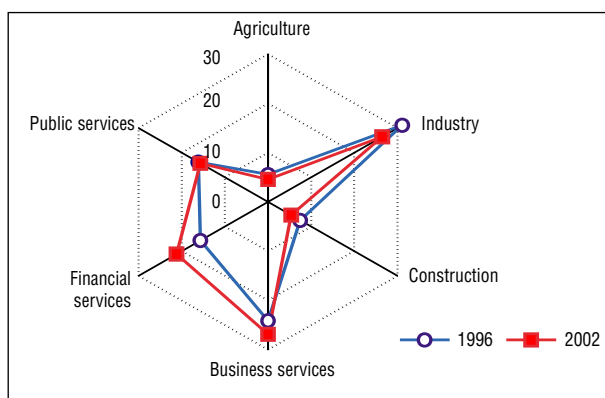
social aid; other community, social and personal services).

1.1 Added value

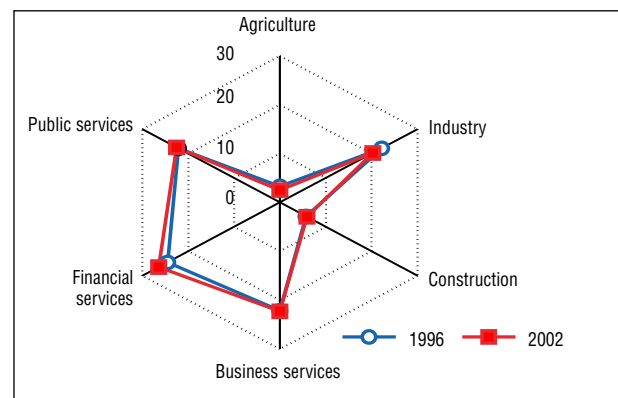
In the whole period analysed the asynchronous course of the business cycle in the SR compared to that of the EU is clear. The gross domestic product of the SR over the period 1996 – 1998 saw, as a consequence of increasing domestic demand, relatively high rates of

Under the influence of structural changes in the Slovak economy the share of individual sectors in added value created is changing and is gradually approaching the respective levels in EU countries. Over the period 1996 – 2002 the share of industry fell from 31% to 26%, where there was a concurrent growth in financial and business services. In comparison with trends in the EU, structural changes have least affected public services, where their share in added value in the SR over the course of the whole period remained unchanged (lagging behind the

Graph 3 Added Value by Sector in the SR

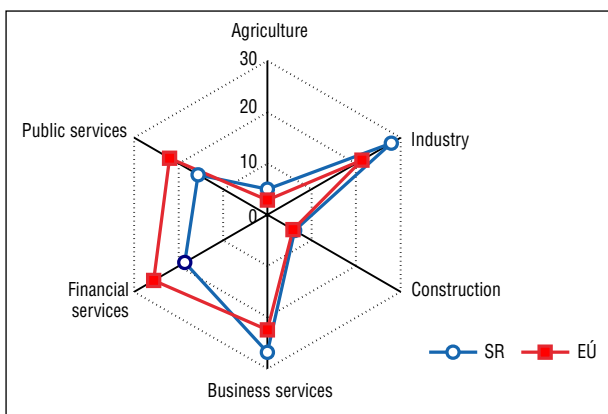


Graph 4 Added Value by Sector in the EU





Graph 5 Added Value by Sector in the SR and EU 1996 – 2002



(21.3%) being exceeded to the greatest degree by Ireland (34.3%). In other countries the share of industry was lower than in the SR, where added value creation was significant for industry in Finland, Germany and Sweden.

Construction is the sector with the least variance in its weightings in added value creation of in EU countries. The average share (5.8%) was slightly exceeded only by Austria, Greece, Spain and Portugal, which could be connected with the drawing of financial resources from the EU structural funds. Slovakia, with an average share of 6.2%, achieved the EU average, primarily as a result of the significant growth in investment over the period 1996 – 1998.

In EU countries on average 70% of added value

Sectoral Structure of Added Value in the SR and EU – average for 1996 – 2002

(%)

	Agriculture	Industry	Construction	Business services	Financial services	Public services
SR	5.0	27.9	6.2	26.8	18.6	15.6
EU – average	2.9	21.3	5.8	22.4	25.6	22.0
Countries above the EU average	GR 7.9 IE 4.8	IE 34.3	ES 8.0 AT 7.8 PT 7.3 GR 7.2	GR 28.5 ES 27.3	LU 44.1 FR 29.6 DE 29.4	DK 26.3 SE 25.7
Countries below the EU average	LU 0.7 DE 1.2 UK 1.2	LU 12.3 GR 14.3	SE 4.7 IE 18.2 ES 19.3	DE 17.7 IE 19.3	PT 18.7 IE 17.1	LU 15.8

Source: NBS recalculations from OECD data

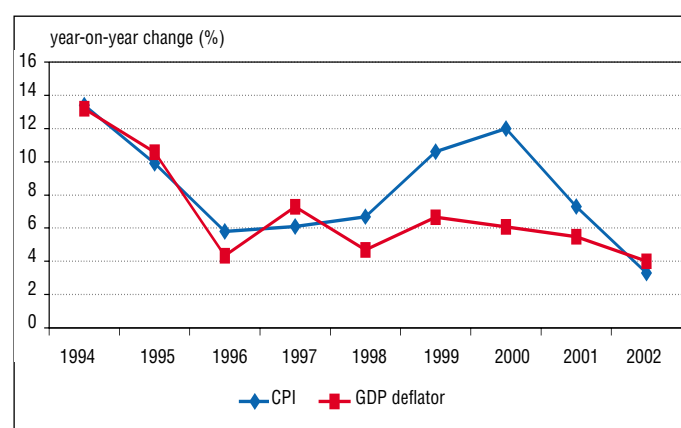
share in European Union countries by five percentage points). The share of construction in total added value in the SR is identical with that in European countries. Though the share of agriculture in the SR slightly exceeds its share in the framework of the EU structure of weightings, the trend of a moderate decline in this share over the course of the individual years is the same as in the EU.

From the graphs above it can be seen that EU economies are marked by relatively steady shares of the respective individual sectors in added value creation. An exception is Luxembourg, where the share of services exceeds 80% and financial services represent almost twice the EU average. In other sectors however Luxembourg has the lowest values in the EU.

In agriculture most EU countries achieved the EU average (2.9%), where the level of 5% (the average for the SR) was equalled or exceeded only by Ireland and Greece. Their high share gradually fell over the course of 1996 – 2002 and in 2002 a 7% level was recorded only by Greece.

In industry a slight dispersion of weightings between individual countries can be discerned, the EU average

Graph 6 CPI and GDP Deflator Development in the SR



came from the services sector, of which financial services formed 25.6%, business services 22.4% and public services 22%. Besides Luxembourg, financial services are significantly developed also in France and Germany. Greece and Spain have the highest share of business services and Denmark and Sweden a relatively significant share of public services. Slovakia with its share of 60.9% is found below the average for EU countries.

1.1.1 Added-value inflation

For assessing price changes in added value creation in individual sectors it is more appropriate to use implicit price deflators than the CPI index, since the former more closely take account of price development, which is different in individual sectors. The development of CPI and the overall GDP deflator in the SR, at the aggregate level, have a similar development from the aspect of their trend.

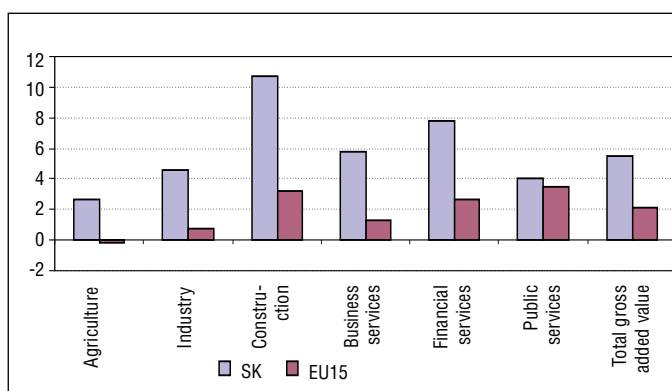
Price development of added value between individual sectors in EU countries over the years 1996 -2002 reported a lower degree of volatility than in comparison with the SR. The average values of sectoral inflation in EU countries are connected with lower values for overall inflation. The fastest price growth was in construction and in the public sector, while deflation occurred in agriculture. In Slovakia the strongest price influences on added value creation were seen in construction, primarily over the years 1997 – 1999 and in financial services. Value-added creation inflation on average for the period 1996 –2002 in the SR reached 5.5%, while in the EU15 countries price development was more stable and inflation similarly calculated reached 2.1%.

While sectoral inflation in the EU countries developed in a relatively stable manner, it can be seen from data for the SR that this development was more volatile, probably as a result of the implementation of economic reforms and gradual structural changes in individual sectors. One source of instability in price development from the sectoral aspect may have been also revisions made to estimates of added value, where the further implementation of ESA 95 methodology procedures could correct the development of sectoral inflation in the SR.

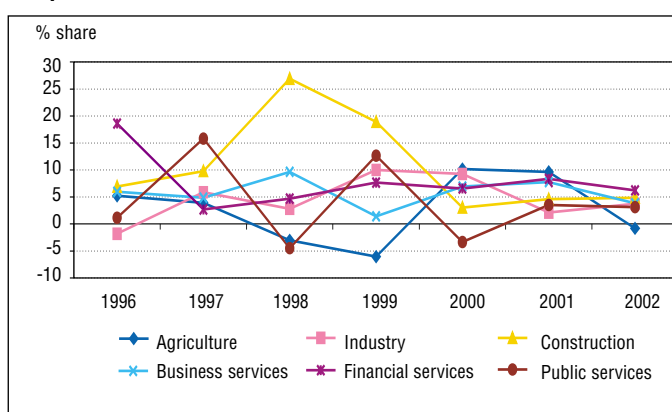
In agriculture, a cycle can be seen in the Slovak economy, which converges with price development in EU countries. Surpluses on the cereals market and the decrease in the price level for livestock production caused a fall in agriculture prices in 1999. For climate conditions (droughts) in 2000 led to a low harvest and subsequent rise in prices in 2000, which continued under the influence of the intervention policy in 2001. Since 2002 through the influence of a good harvest and intervention policy from the preceding period prices in agriculture have been gradually falling. The volatile price development of added value in

¹ In foreign literature the term value-added inflation is used in this context.

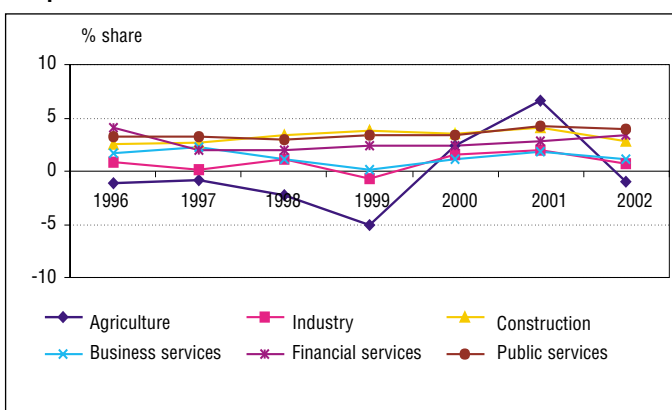
Graph 7 Value-Added Inflation by Sector in the SR and EU15



Graph 8 Value-Added Inflation in the SR



Graph 9 Value-Added Inflation in the EU15



construction in the SR is probably connected with the development of investment demand.

The development of prices in industry was to a certain extent affected by administrative interventions concerning regulated prices and converged to the development of overall inflation measured by the consumer price index. The cyclical development of inflation in business services is clearly connected with the business cycle in the Slovak economy, where the decline in purchasing power and the economic slowdown led to a similar slowdown in price growth.

To be continued in issue 9/2004