

4.4. Gross Value Added and Labour Productivity

- **Increase of GVA share in production**

Gross value added (GVA), amounting in 2009 to 3,258.9 billion CZK in current prices, was lower by 62.5 billion CZK on a year-to-year basis. Compared to the decrease in value of the domestic production, this was much less since the decrease in production was, for more than nine-tenths, caused by decrease in intermediate consumption. The structural change in the basic production proportions and the efficiency growth of the consumed intermediate product were the factors with a positive effect on GVA. There was also a substantial change in the GVA branch structure. The share of the quaternary sector characterised by a low intermediate consumption intensity of production increased significantly (by 1.6 percentage points); with this enhanced share, the sector again came closer to the secondary sector. Within the quaternary sector, the banking and insurance industries experienced the strongest growth. The position of the other sectors weakened; the largest decrease was recorded in the tertiary sector, and within that particularly in the branches of trade, motor vehicle repairs and consumer goods (by 1.1 percentage points).

Table No. 4.4.1 Gross value added

Current prices

	2005		2006		2007		2008		2009	
	billion CZK	%	billion CZK	%	billion CZK	%	billion CZK	%	billion CZK	%
Total GVA	2,675.3	100.0	2,907.7	100.0	3,178.0	100.0	3,321.4	100.0	3,258.9	100.0
Sector I	81.0	3.0	75.5	2.6	78.3	2.5	84.5	2.5	74.4	2.3
Sector II	1,013.1	37.9	1,110.9	38.2	1,221.8	38.4	1,248.9	37.6	1,212.9	37.2
Sector III	663.2	24.8	744.0	25.6	791.3	24.9	838.6	25.3	790.7	24.3
Sector IV	918.0	34.3	977.3	33.6	1,086.6	34.2	1,149.4	34.6	1,180.9	36.2

Note: Sector I includes BCEA A+B, Sector II includes BCEA C to F, Sector III includes BCEA G to I, Sector IV includes BCEA J to P according to CZ-NACE, ver. 1.1 (BCEA).

Source: CZSO, national accounts, own calculations

- **Substantially higher decrease in GVA volume than value**

In 2009, the prices of consumed intermediate products fell significantly more than the prices of domestic production. Implicitly, this resulted in an increase in the aggregate price level of GVA by 2.8%, i.e. a growth that was 1.7 percentage points stronger than last year. This fact had a major impact on the year-on-year change in the value and volume of GVA. The combined influence of the physical volume and prices on the GVA value shows, namely, that the 2009 year-on-year decrease in GVA in current prices referred to above was caused solely by the decrease in its volume (-151.9 billion CZK), since the increased price level contributed to a rise in the value by 89.4 billion CZK. As a result, the decrease in the GVA volume was substantially higher than the decrease in its value. Compared to the 2008 developments when the increase in the volume contributed to the increase in the value by nearly three-fourths, this was a markedly different combination.

Table No. 4.4.2 Year-on-year changes in gross value added

Changes in	2005		2006		2007		2008		2009	
	billion CZK	%	billion CZK	%	billion CZK	%	billion CZK	%	billion CZK	%
Value	145.6	5.8	232.4	8.7	270.3	9.3	143.4	4.5	-62.5	-1.9
Volume	166.1	6.6	203.0	7.6	171.4	5.9	106.6	3.4	-151.9	-4.6
Prices	-20.5	-0.8	29.4	1.0	98.9	3.2	36.8	1.1	89.4	2.8

Source: CZSO, national accounts, own calculations

- **Strong GVA decrease in the processing industry**

The extensive differences in the branch activities (from an extremely strong increase to a substantial drop) and in the time horizon are the reasons lying behind the total decrease in the GVA volume in 2009. In real terms, GVA went down by 4.6% in 2009 on a year-to-year basis (after a 3.4% growth last year); the secondary sector, recording a 12.2% decrease (after a 6.5% increase last year resulting in a

2.5 percentage point positive effect), had the largest negative influence on this drop (4.6 percentage points). The development within the secondary sector was quite varied; GVA dropped by 15.2% in the processing industry, while growing slightly (by 0.9% in the construction industry). The GVA decrease in the tertiary sector by 4.5% had a 1.1 percentage point negative effect on the whole; within the tertiary sector, the strongest GVA decrease was recorded in trade, motor vehicle repairs and consumer goods (by 8.1%) and the strongest GVA increase in catering and accommodation (by 5.4%).

Table No. 4.4.3 Development of gross value added

In % and percentage points (p.p.) from constant prices

	2005		2006		2007		2008		2009	
	Y/y in %	Effect p.p.	Y/y in %	Effect p.p.	Y/y in %	Effect p.p.	Y/y in %	Effect p.p.	Y/y in %	Effect p.p.
Total GVA	106.6	6.6	107.6	7.6	105.9	5.9	103.4	3.4	95.4	-4.6
Sector I	110.9	0.4	84.6	-0.5	88.2	-0.3	105.1	0.1	149.0	1.2
Sector II	107.9	3.1	112.3	4.7	106.9	2.6	106.5	2.5	87.8	-4.6
Sector III	106.6	1.6	110.8	2.7	107.2	1.9	102.5	0.7	95.5	-1.1
Sector IV	104.6	1.5	102.0	0.7	105.1	1.7	100.3	0.1	99.7	-0.1

Note: Y/y is the year-on-year change; Sector I includes BCEA A+B, Sector II includes BCEA C to F, Sector III includes BCEA G to I, Sector IV includes BCEA J to P according to CZ-NACE, ver. 1.1 (BCEA).

Source: CZSO, national accounts, own calculations

- ***The sharpest GVA drop in the second quarter***

The level of GVA decrease varied strongly throughout the year of 2009; on a year-to-year basis, the sharpest GVA decrease was recorded in the 2nd quarter (by 5.5%) and the slightest GVA decrease was recorded in the 4th quarter (by 3.6%), which is a considerable difference compared to the last-year's growth (-9.3 percentage points and -4.9 percentage points). The GVA volume (in 2000 constant prices) in the 2nd quarter of 2009 was thus 13.1 billion CZK lower than in the 2nd quarter of 2007. The seasonally adjusted data show that, following a significant quarter-on-quarter decrease in the GVA volume in the 1st quarter (by 5.2%), it continued dropping in the 2nd quarter (by 0.5%) to increase again in the second half of the year compared to the previous period (by 0.9% in the 3rd quarter and by 1.0% in the 4th quarter). After seasonal adjustment, the sharpest GVA decrease on a year-to-year basis was recorded in the 2nd quarter (by 5.2%) and the slightest in the 4th quarter (by 3.9%).

- ***Large employment decrease in the secondary sector***

The annual average number of employed persons (recalculated to the full-time equivalent according to the concept of the national accounts), amounting to 5,185.4 thousand for 2009, was 1.7% lower on a year-to-year basis. The largest decrease was recorded in the secondary sector (by 3.8%) where the share in the total employment declined by 0.9 percentage points (to 37.7%) on a year-to-year basis. The employment increased slightly in the quaternary sector (by 0.2%). The same sector achieved also the highest level of labour productivity (measured by GVA in current prices per employee); it exceeded the annual average by 7.3%, i.e. by 2.8 percentage points more than a year ago. The labour productivity in the primary sector is significantly below the average (by more than one-third).

- ***GVA drop influenced predominantly by the labour productivity decrease***

In real terms, labour productivity decreased by 3.0% in 2009 on a year-to-year basis, which implies that the decrease in the number of employed persons contributed with more than one-third (55.0 billion CZK) to the total decrease in the GVA volume (by 151.9 billion CZK), with less than two-thirds (96.9 billion CZK) being attributable to labour productivity. The labour productivity development is based on the efficiency of fixed assets, which dropped down by 5.1%, and on the fixed asset/labour ratio, which increased by 2.2%. In the branch and sector breakdown, both the level of and the year-on-year change in labour productivity varied strongly and had a substantially different influence on the GVA development. Labour productivity grew high above the average in the primary sector (by 50.8%), while decreasing in the secondary sector by 8.7%.

Table No. 4.4.4 Employment and labour productivity developments

Year-on-year changes in %

	2005		2006		2007		2008		2009	
	Employment	Labour product.	Employment	Labour product.	Employment	Labour product.	Employment	Labour product.	Employment	Labour product.
T o t a l	1.1	5.4	1.8	5.7	2.7	3.1	1.7	1.7	-1.7	-3.0
Sector I	-4.2	15.8	-1.6	-14.0	0.0	-11.8	0.0	5.1	-1.2	50.8
Sector II	1.0	6.8	2.0	10.1	2.1	4.7	1.6	4.8	-3.8	-8.7
Sector III	0.3	6.3	1.2	9.5	2.9	4.2	0.7	1.8	-1.0	-3.5
Sector IV	2.6	1.9	2.5	-0.5	3.7	1.4	2.8	-2.4	0.2	-0.5

Note: Sector I includes BCEA A+B, Sector II includes BCEA C to F, Sector III includes BCEA G to I, Sector IV includes BCEA J to P according to CZ-NACE, ver. 1.1 (BCEA).

Source: CZSO, national accounts, own calculations.