

2. Production Performance of Industries in the Economy

It is possible to view the business or corporations from two angles. Through the individual industries¹ or as a one of main institutional sectors. The advantage of using institutional sectors lies in the fact, that these sectors join units with a similar economic behaviour. In case of business sector (in the institutional view categorised as non-financial corporations²) it is mostly the significant role as a producer, investor and also employer. For assessment of the long-term dynamics of the performance of the businesses in the CR the data from the national accounts were primarily used.

2.1. Basic characteristics of the businesses (in the view of institutional sectors or industrial branches)

Key influence of non-financial corporations on the creation of gross value added of the national economy was interrupted by the onset of recession in 2009...

...contrary to growth rates in the following years their share has not even in 2012 reached the pre-crisis level

At times of prevailing boom increased their share of gross value added in the economy especially the manufacturing industry and progressive services...

Non-financial corporations in the CR represent a key sector of the economy in the view of gross value added creation. The role of this sector has been increasing in the long-term. It was strengthened by the processes of economic integration (mostly the accession of the CR into the EU), which markedly expanded the export potential of domestic (mostly industrial) companies. Between years 2003 and 2008 the proportion of non-financial businesses on the gross value added creation in the whole national economy increased by nearly 5 p.p. Non-financial corporations sector was however also the most hit (out of all sectors in the CR) by the deep recession of 2009. Although the non-financial corporations generate since that time value added by year-on-year higher rates in comparison to other sectors of the economy, they remained also in 2012 below the level of the peak boom (in 2008 they created nearly two thirds of gross value added of the national economy). Mirror picture of the development of non-financial corporations represents the sector of households (mostly small entrepreneurs). At the beginning of the 90s households generated one quarter of value added of the whole economy, in 2012 its weight decreased to one sixth. Entrepreneurs felt the negative effect of recession mostly in years 2011 and 2012, specifically in construction as well as wide spectrum of services (mostly in food service activities). Sector of government institutions participated on the value added of the national economy in the long-term without higher fluctuations by one eighth. Adopted saving measures between years 2009 and 2012 led to the lowering of the weight of this sector by 0.5 p.p. At time of economic recession the influence of financial institutions in the Czech economy strengthened, their share on the total value added reached the highest value from the half of 90s. Mildly, but steadily strengthens its weight the so far peripheral sector of non-profit institutions.

More significant structural changes in terms of gross value added creation can be observed in individual industries. High dynamics of the growth of value added of non-financial corporations in the long-term, mostly boom period (from half of 90s till year 2008). was dragged mostly by the manufacturing industry, in smaller part by some dynamic services industries (e.g. information activities or professional, scientific and technical activities). In this period on the contrary lowered their share on the value added of the whole economy the construction, energy industry as well as mining (in all cases due to the adverse development in the second half of 90s) and also already in the half of 90s relatively modest primary sector.

¹ Dynamics of the performance of individual branches (from the view of value added, sales, closed orders or employment) is assessed in more detail in regular (quarterly, annual) reports regarding the development of the CR economy, e.g. http://www.czso.cz/csu/2012edicniplan.nsf/publ/1109-12-q4_2012http://www.czso.cz/csu/2012edicniplan.nsf/publ/1109-12-q4_2012

² Non-financial corporations include institutional units, whose main function is to produce goods and non-financial market services and which have the nature of market producers. Both private and public companies, enterprises, cooperatives as well as some non-profit institutions serving corporations belong here, as well as some significant units, which are not independent legal person (so called quasicompanies) belong here.

Chart 13 Share of institutional sectors on gross value added creation¹⁾ in the total economy and real growth of GDP

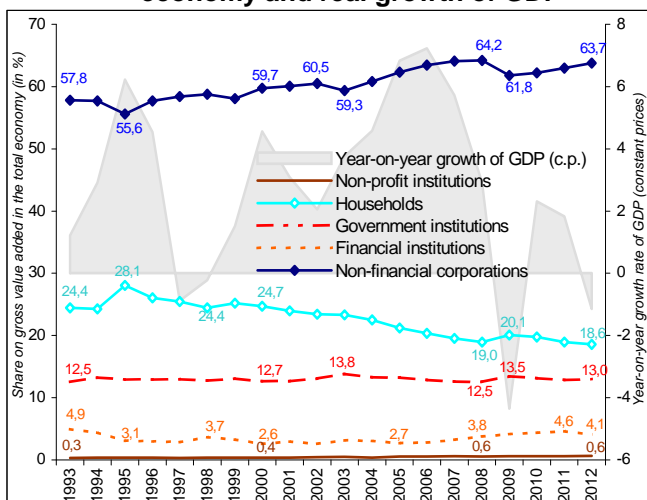
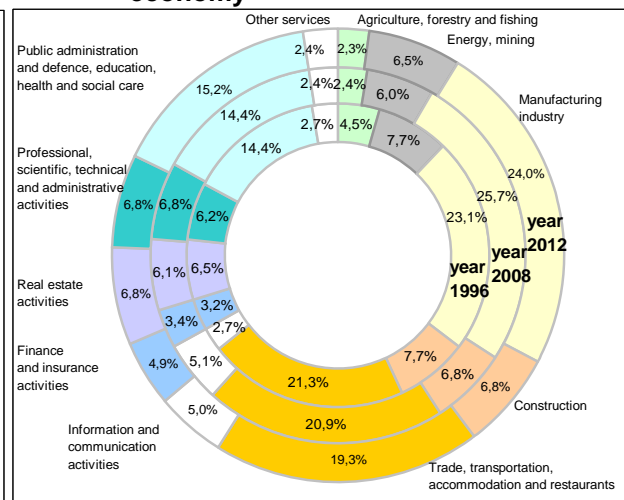


Chart 14 Share of groups of industries on gross value added creation¹⁾ in the total economy



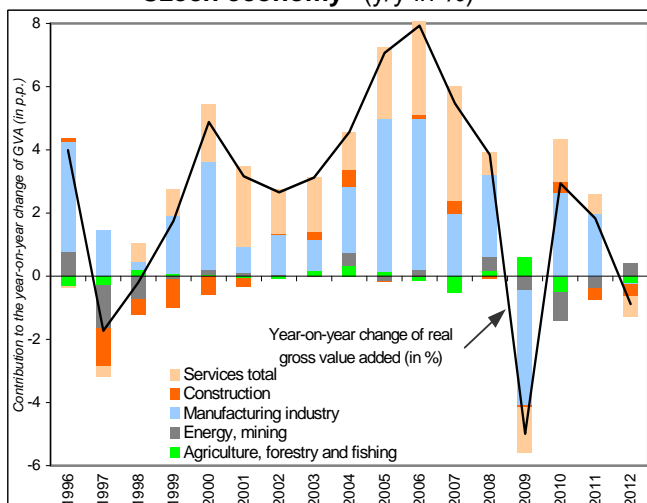
¹⁾ in basic prices (i.e. without taxes lowered by subsidies on products).

Source: CZSO (national accounts)

...since the burst of recession have been relatively successful the financial services

In the subsequent period (2009-2012) marked by a deep recession the most decreased their share mainly the manufacturing industry and also in the group of services (trade, transportation, accommodation and food service activities). Relatively successful during recession were on the other hand energy industry, real estate activities, public services and mostly financial and insurance activities, which increased their share on the gross value added in the national economy in four years nearly by one half (from 3.4 % to 4.9 %)

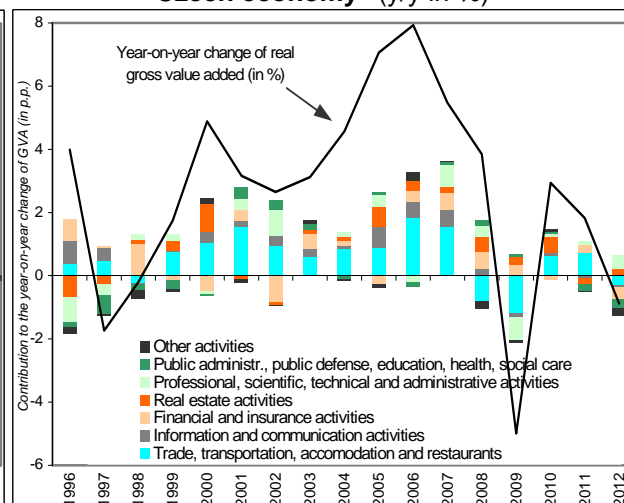
Chart 15 Share of main groups of industries on the growth of gross value added of the Czech economy¹⁾ (y/y in %)



¹⁾ in basic prices (i.e. without taxes lowered by subsidies on products).

Note.: Calculated on seasonally adjusted data

Chart 16 Share of branches of services on the growth of gross value added of the Czech economy¹⁾ (y/y in %)



Source: CZSO (national accounts)

During boom in half of 90s as well as one decade later the manufacturing industry contributed to the year-on-year growth of value added in the CR economy markedly more compared to the services sector total

Data combining dynamics of growth of individual sectors as well as their total size (from the view of gross value added production) are mirrored in the contributions of partial industries to year-on-year growth of real gross value added of the national economy. With respect to the size of industries it is not surprising, that in the long-term the manufacturing industry contributed the most to the growth of value added. During period 1996-2008 it lost its dominant position only twice, to the benefit of financial services (1998) and to a cluster of selected services - trade, transportation, food service activities and accommodation (2001) resp. In most years of this period were the contributions of the manufacturing industry even notably higher compared

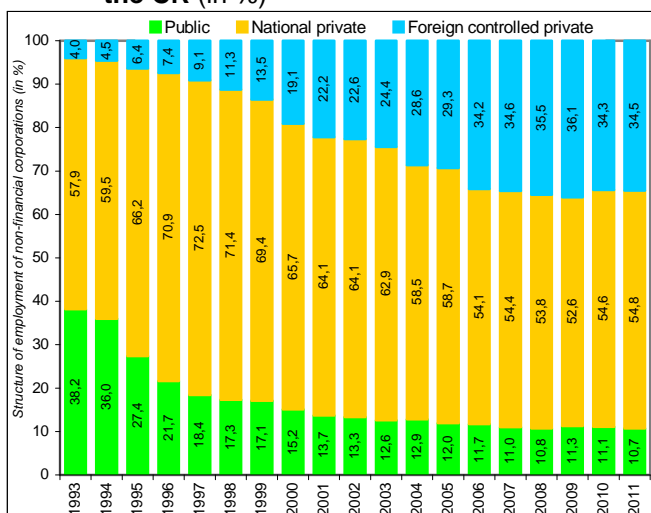
to the whole tertiary sector. Within the services framework, the most contributes to the growth of value added in the whole economy in the long-term the cluster of services (trade, transportation and warehousing, food service activities and accommodation), which also as one of the first segment within services experienced the worsening of economic performance already during the year 2008. Within services, its position gradually improved the public services as well as professional, scientific, technical and administrative services, which still by the end of 90s influenced the growth of value added in the economy negatively, while throughout the most of the subsequent decade, their contribution was visibly positive (in years 2007-2008 secured one seventh of the growth of value added of the whole economy). The same can be within the secondary sector framework stated regarding the energy industry and construction.

Key meaning of the manufacturing industry for changes in dynamics of value added of the whole economy lasted also in year of deep recession and following two years of mild recovery

Key meaning of the manufacturing industry for the year-on-year dynamics of gross value added of the whole CR economy was further enhanced during the recession. In 2009 it shared in nearly three quarters on the sharp fall of the value added (-5 %). In the following two years it managed to easily compensate the year-on-year falls of the gross value added in the energy industry, construction or public services. For the whole year 2012 (with the minimal influence of manufacturing industry) on 1% year-on-year drop of the value added of the whole economy participated to the comparable extent most of other industries, in primary, secondary (especially construction) as well as tertiary sector (financial services, public services, trade as well as transportation, food service activities). The most significant feature of 2012 was gradual weakening of the year-on-year dynamics of the produced value added visible in most key industries during the year. The most for the production of transportation vehicles, negatively affected by the weakening of foreign demand. Growth of value added on the contrary did not stop in some smaller sections of services (real estate activities and employment activities) and thanks to a favourable development in first three quarters of 2012 also in the energy industry.

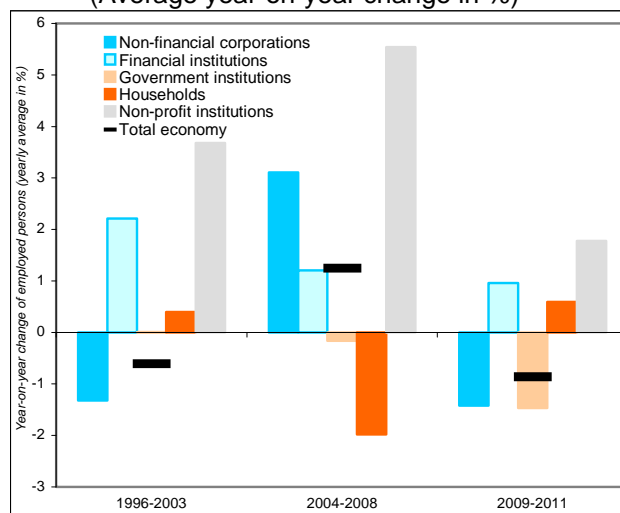
Weakening of year-on-year dynamics of gross value added during 2012 was felt the most in export oriented branches of the manufacturing industry

Chart 17 Employment structure¹⁾ based on subsectors of non-financial corporations in the CR (in %)



¹⁾ recalculated jobs to full-time equivalents

Chart 18 Relative change of number of employed²⁾ based on institutional sectors in the CR (Average year-on-year change in %)



Source: CZSO (national accounts)

Non-financial corporations in the CR concentrate nearly three fifths of jobs

Sector of non-financial corporations is generally considered to be not only a significant producer of value added, but it also enjoys a key role on the labour market. In 2011 this sector provided jobs to 59 % of employed persons in the CR (jobs recalculated to full-time employment). The weight of the non-financial corporations on the total employment is tightly connected to the change of the inner structure of employment in this sector.

Restructualisation waves in the agriculture and industry in the 90s markedly decreased

Throughout the whole 90s and also in the first years after year 2000 faced this sector a fall of job vacancies (the strongest apart from the beginning of 90s in periods 1998-2000 and in 2003 – with year-on-year losses of jobs -3 to -4 %). These

employment in public non-financial corporations as well as whole business sphere

losses were connected with the restructalisation waves in the primary and later mostly in the secondary sector, as well as with the shifts in the ownership structure of businesses (privatization of state companies and eventually also the entry of foreign owners). While the long-term fall of the share of public companies in the total employment in the whole non-financial corporations sector practically halted in 2013, the growth of employment in the foreign controlled private corporations continued also in the later boom years. It was possible thanks to still strong entry of the foreign capital into the domestic businesses, as well as the expansion of current production capacities of businesses under foreign control, which benefited from the dynamic development of exports. Between years 2003 and 2009 increased in the businesses³ the share of those under foreign control from 21 to 29 % (for industry), from 15 % to 25 % resp. (for market services). At the end of boom the foreign capital controlled 4 out of 10 corporations¹⁷ in market services with headquarters in Prague, and nearly 45 % of industrial corporations¹⁷ located in the Pilsen region. In the period 2009-2011 the proportions between individual subsectors of non-financial corporations remained without significant changes – public businesses employed one tenth of employees of the whole non-financial corporations sector, businesses with the prevailing foreign capital one third and national private businesses near 55 %. Weight of the foreign controlled corporations in years 2010 and 2011 slightly lowered, mostly in industry.

Growth of weight of foreign controlled corporations was supported by strong growth of foreign direct investment (mainly from the break of millennium) continued also in the period of boom

Portion of jobs spills over between non-financial corporations and the sector of small entrepreneurs in connection with the business cycle

In the successful period between years 2004-2008 the non-financial corporations belonged (next to the small segment of non-profit organisations) to the sector with the fastest growing employment (year-on-year on average by 3 %). Portion of jobs most likely spilled into the non-financial corporations in the time of boom (also thanks to the higher dynamics of wage growth) from the household sector (i.e. small entrepreneurs). Opposite phenomenon then occurred besides other things also for the reason of rationalisation of the operating costs of businesses after year 2009. In the 2009-2011 period the employment in the non-financial corporations sector as well as in government sector decreased by similar dynamics. While for the non-financial corporations it arrived in the form of one-off deeper fall in 2009 (-4%), in case of government sector it was a more gradual reduction spread throughout the whole period.

Chart 19 **Gross value added per employed person** (in thousand crowns, constant prices, differences based on branches main groupings)

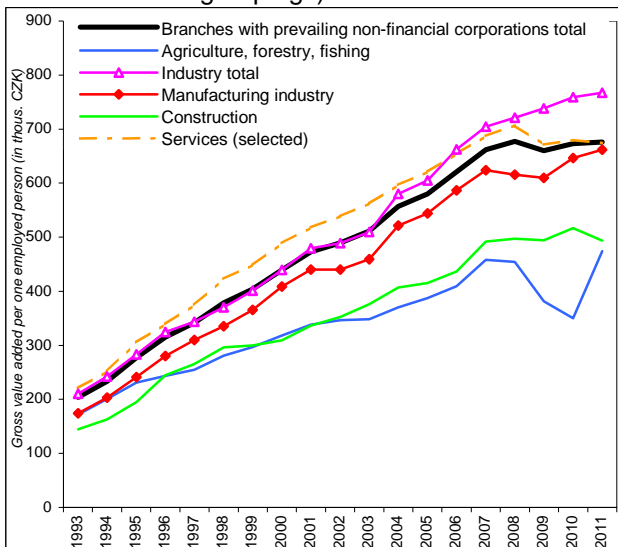
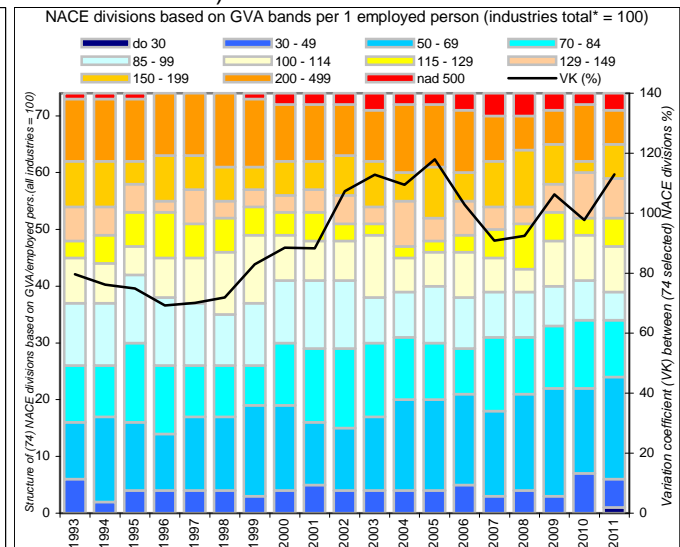


Chart 20 **Gross value added per employed person** (non-financial corporations total*=100; selected divisions of industry classification NACE*)



* Based on (74) divisions of industrial branches with prevailing non-financial corporations

Note.: Branches with prevailing non-financial corporations include all divisions of classification of economic activities (CZ-NACE) apart from financial and insurance activities (64-66), predominantly public services (84-91, 94) and households (97-98)

Employed persons = recalculated jobs on full time equivalents

Source: CZSO (national accounts)

³ With 20 and more employees at the end of respective year.

Long-term lag in the productivity in the primary sector and construction, favourable development in industry

One of the basic feature of the long-term productivity development (expressed as a ratio of gross value added to employed person) can be considered the development of inter-industry differentiation. It is obvious already from an approximate comparison of the main sectors of the economy. While in 1993 the productivity in the primary sector laid one seventh below the level of all industries (including all branches with prevailing of non-financial corporations), in 2011 it was lower nearly by one third (opposed to long-term fall of employment and strong year-on-year growth of gross value added against year 2010). In construction the productivity in the long-term oscillates between 70-75 % of level of all industries. Thanks to the growing weight of export oriented corporations under foreign control there was a convergence for the manufacturing industry, especially in the second half of the 90s. Above average growth of productivity in the whole secondary sector was ensured a decade later also by a favourable development in industries with high productivity – energy industry and mining industry. During recession on the contrary decreased the advance of the whole tertiary industry (without financial and public services) over other industries.

Growth of the inter-branch differences in productivity between years 1998 and 2005 and also during the recession

At the level of division (74) of the industry classification is for the last two decades apparent an increase of the frequency of partial industries, whose productivity does not reach 70 % of the level of all branches, as well as industrial divisions with a very high productivity (extraction of crude petroleum and natural gas; production and distribution of electricity, gas, steam and air conditioning; manufacture of tobacco products). The value of variation coefficient, which summarizes the relative differences between all assessed divisions, expressed a relatively sharp growth of differences in productivity between years 1998-2005. In spite of short-time slight convergence of industry productivities on the peak of boom the size of relative disparities between individual divisions in 2011 was the second highest in history.

Chart 21 Gross value added per employed person* (in thous. crowns, cur.p., selected industry divisions)

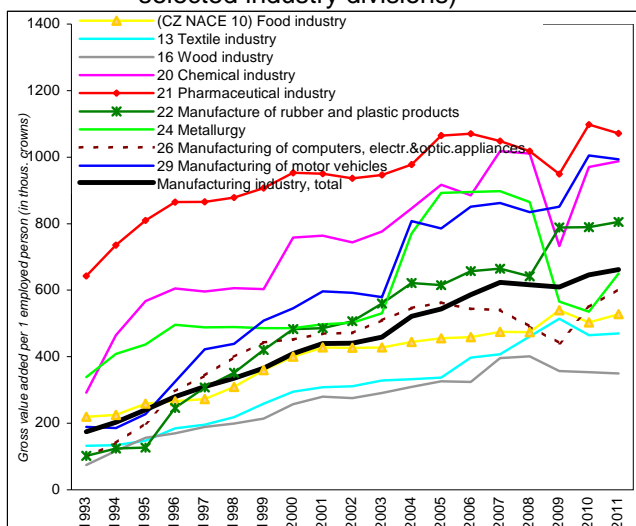
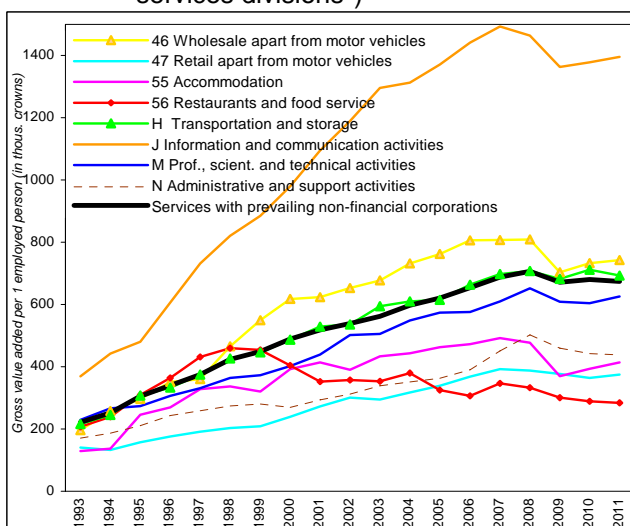


Chart 22 Gross value added per employed person (in thous. crowns, cur.p., selected services divisions*)



* Selected divisions of economic branches with prevailing non-financial corporations

Note.: employed persons = recalculated jobs to full-time equivalents

Source: CZSO (national accounts)

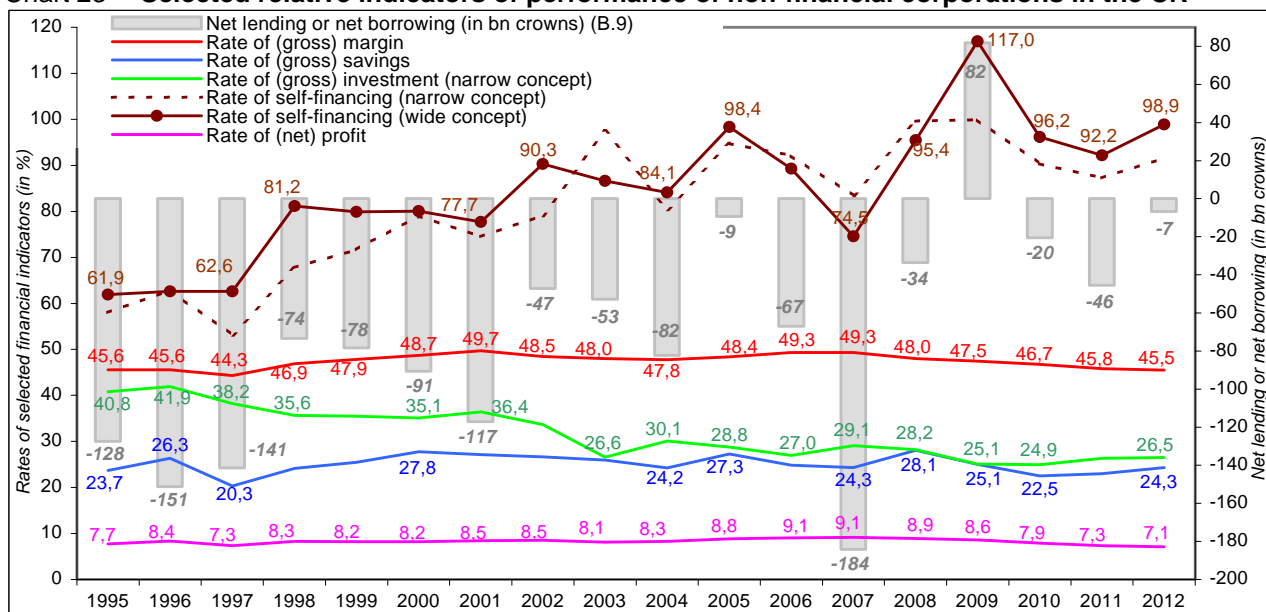
2.2. Performance of non-financial corporations in the CR

More detailed analysis of the economic behaviour of the non-financial corporations in the CR is enabled by the time series of the sector accounts

Transformations of the economic behaviour of the sector of non-financial corporations can be relatively comprehensively characterised by a set of basic indicators derived from the national accounts tables. In the long-term view, it is apparent that the non-financial corporations in the CR similarly to most developed countries show financial need – i.e. net borrowing (their creditor is usually the financial sector). This was the case of the national private non-financial corporations mainly in the 90s, when the

businesses as a result of the need to renew the production base invested massively. Still in the period 1998-2002 their investment rate moved around 35 % and it was the highest among all institutional sectors of the Czech economy (in the earlier part of the 90s it was exceeded only by the financial sector).

Chart 23 Selected relative indicators of performance of non-financial corporations in the CR



Notes to the calculation of relative indicators:

- Rate of gross margin = gross operating surplus (B.2g) / gross value added (B.1g) * 100
- Rate of gross savings = gross savings (B.8g) / gross value added (B.1g) * 100
- Rate of gross investment = gross fixed capital formation (P.51) / gross value added (B.1g) * 100
- Rate of self-financing (narrow concept) = gross savings (B.8g) / gross fixed capital formation (P.51) * 100
- Rate of self-financing (wider concept) = (gross savings / B.8g + capital transfer balance / D.9rec- D.9pay /) / (gross fixed capital formation / P.51 + changes in inventories / P.52 + acquisitions less disposals of valuables / P.53 + acquisitions less disposals of non-financial non-produced assets / K.2) * 100
- Net profit rate = net operating surplus (B.2n) / total production (P.1) * 100

Source: CZSO (national accounts)

In the second half of 90s the strongly indebted non-financial corporations did not create enough of own resources for their strong investment need and had to take further debt mostly in the form of loans

Causes of the deep deficits (net borrowing) of the non-financial corporations in the second half of 90s laid among other things in the relatively lower rates of gross margins (beside other things as a result of mild recession in the economy), high debt (and subsequently higher need for repayments) and gradual deepening of the balance of owner income due to the higher outflow of dividends to foreign owners. Businesses could not earn enough resources, resp. savings (gross savings rate fell in 1997 to 20 %) to cover own high investment needs (during 1995-97 they managed to cover from own resources less than two thirds of investment).

During boom also increased the margin rate as well as the profitability of businesses...

After 2001 the net borrowing as well as the rate of self-financing of non-financial corporations markedly improved. The rate of gross investment fell to the level of the whole national economy and the higher rate of gross margins enabled not only the strengthening of the dividend outflow mainly to the foreign owners, but also a relatively higher savings creation. In year of the peak boom (2007) achieved the non-financial corporations sector with the historically so far highest rate of gross margins (49 %) also a record financial deficit. The reason behind a seeming inconsistency was both the deep fall of the owner income balance (outflow of dividends but also a reinvested profits from foreign direct investment) and the high rate of investment mostly (esp. historically highest increase in inventories: year-on-year by total 100 bn crowns). Sharp improvement of the net lending/net borrowing of non-financial corporations in the year 2008, which experienced in its second half a notable signals of upcoming recession mostly in industry, was facilitated by a marked growth of savings (in absolute terms they even more than twice exceeded the value of savings in the household sector). The important role was played also by a mild fall of the investment rate as well as a lower increase of the stock of inventories and also the exceptionally positive balance of the non-financial

...however businesses kept a significant financing need due to the growing outflow of dividends to the foreign shareholders and also by the contribution of growing stock of inventories

Businesses reacted to the year of deep recession by lowering of employment or investment and marked year-on-year fall of stock of inventories

corporations sector from the reinvested profits from foreign direct investment. Economic recession fell in 2009 on the sector of non-financial corporations in the CR by a full force. Gross value added here year-on-year fell the most out of all sectors (nominally by 6.3 %). This slump was partially compensated by the decrease of employment (-4 %), businesses however cut mostly the investment (gross fixed capital formation decreased by one sixth) and the stocks of inventories declined year-on-year by record 41 bn crowns. Year-on-year fall of inventories (however by a grade lower) recorded non-financial corporations only in the economically weak end of 90s.

Table 2 **Weight of non-financial corporations sector on national economy (%)**
(selected aggregates of national accounts sets)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Production	71,3	70,4	69,5	70,8	71,9	72,3	71,2	72,9	73,6	73,3	72,9	74,0	74,6	76,1	76,7	76,5	74,3	75,5	76,4	77,0
Gross value added	57,8	57,7	55,6	57,7	58,4	58,7	58,1	59,7	60,0	60,5	59,3	60,8	62,3	63,4	64,1	64,2	61,8	62,2	63,0	63,7
Net value added	59,2	59,3	56,0	58,5	59,1	59,5	58,3	60,2	60,3	60,8	59,5	61,2	63,0	64,3	65,0	65,2	62,2	62,6	63,5	64,3
Compensations of employees	69,1	68,7	68,5	69,2	70,5	71,6	70,2	71,0	70,4	70,5	69,3	70,5	71,4	71,8	72,7	73,7	72,5	73,1	73,8	73,9
Net operational surplus and mixed income	46,4	47,2	40,1	44,3	42,5	44,1	43,3	46,8	48,3	48,9	47,2	49,1	52,4	55,1	55,7	54,5	49,0	48,6	49,0	50,0
Net savings ¹⁾	34,3	59,2	15,1	38,4	-5,9	25,2	35,6	57,9	57,6	87,7	110,9	50,3	71,1	49,9	49,0	68,2	153,1	136,9	74,1	133,8
Gross fixed capital formation	57,4	62,2	65,5	68,4	67,7	66,9	67,7	66,4	70,1	67,7	53,8	63,7	62,5	60,4	62,3	61,1	56,7	57,0	62,0	64,4
Net lending (+) or borrowing (-) ²⁾	-267	82	232	139	144	210	160	101	111	50	40	70	12	94	111	44	-182	18	75	12
Indebtedness ³⁾	72,0	72,1	69,1	70,8	70,3	68,7	65,8	66,3	62,6	61,3	60,5	59,0	58,2	57,5	55,4	51,7	51,6	51,4	49,5	.
Net worth ⁴⁾	12,8	16,0	19,0	20,3	20,8	24,0	25,2	25,7	27,0	25,8	27,6	28,0	27,6	27,9	27,5	28,9	29,1	30,3	31,0	.

¹⁾ In 1997 acquired for non-financial corporations negative values, in the aggregate national economy were in the whole monitored period only positive.

²⁾ For the whole period was the balance for the whole national economy negative, for non-financial corporations acquired the balance of financial management the positive values only in years 1993 and 2009.

³⁾ Sum of financial liabilities in the final balance sheet: Securities other than interests (AF.3), Loans (AF.4), Other liabilities (AF.7)

⁴⁾ Balance sheet at the end of period, expresses the difference between the level of (financial and non-financial) assets and financial liabilities.

Source: CZSO (national accounts)

In times of „post-crisis“ stabilization businesses fought with the decreasing margin rate, prudent costs on labour force, as well as the investment area; they managed to keep repaying former loans

During 2010-2012 the businesses managed to renew a mild nominal growth of gross value added (ranging 1-2 %) and to stabilize the total employment (accompanied by a mild growth of paid compensations to employees – in 2012 +1.6 %). On the contrary they did not achieve to stop the falling gross margin rate, which gradually moved down to the level of half of 90s. Businesses were however successful in repaying the former loans (interest balance lowered from -50 bn crowns in 2010 to -7 bn crowns two years later) and also the long-term growth of outflow of dividends mostly to foreign owners ceased. Very careful was the growth of investment rate, as well as the year-on-year additions to the inventory balance. This behaviour in summary suggests that the non-financial corporations sector in the CR did not expect in the near future any substantial recovery of the economy. Thanks to the prudent attitude towards investment reached the non-financial corporations a high rate of self-financing, both from own savings (90 %) and all accumulation sources (nearly 100 %) and low deficit of the financial results.

Non-financial corporations in the CR in the long-term strengthen their influence on the performance of the whole economy

From the perspective of the last two decades there is an obvious total favourable development for all important macro indicators (see table 2) of non-financial corporations in the CR in relation to other institutional sectors, especially after year 2000. Corporations were due to their marked exports orientations the first of all sectors of the CR economy hit by the economic recession. Its signals emerged in the business sector already in 2008 with a year-on-year decrease of the share of production and net operating surplus of non-financial corporations in total national economy.

Recession of the beginning of year 2009 in the CR strongly affected first the non-financial corporations sector, later the government sector and households

Recession in this sector fully manifested in 2009 by a deep fall of the weight of non-financial corporations on investments and net operational surplus of the whole economy (in a lesser extent for value added and production). In the subsequent years the non-financial sector tried to utilize the short-term recovery of economies of the main exports destinations, while the consequences of recession fully manifested

The share of non-financial corporations on the whole economy exceeded in year 2012 the pre-crisis level especially for the investment, savings and production, not yet the value added

in other sectors of the CR economy – mostly the government sector and households. The result was a gradual growth of weight of performance indicators of the non-financial corporations sector on the whole CR economy. „Pre-crisis“ weight on the whole economy reached in 2012 the non-financial corporations in the CR in case of production, employee compensations (despite the fall of employment exceeding the level of most other sectors), creation of savings (among other also due to the impact of notable worsening of the performance of the government sector) and fixed investment. The proportion of net value added produced by the non-financial corporations on the total economy (opposed to production) in four years decreased by 1 p.p. It was the result of both higher dynamics of fixed capital consumption and costs within the production process (intermediate consumption).

Weight of foreign controlled corporations in the Czech economy strengthens in the long-term and significantly affects performance of the whole non-financial corporations sector

Performance of the whole non-financial corporations sector is influenced by its partial subsectors, whose behaviour is determined also by the completely different ownership structure. Non-financial corporations can be by ownership (resp. property control⁴) divided into public (under state control), national private (in private ownership of entities of the given state) and under foreign control (remaining businesses, whose behaviour is decided by non-residents).

Chart 24 **Cost of labour of non-financial corporations** (share of employee compensations (D1) in net value added (B.1n); subsectors of non-financial corporations

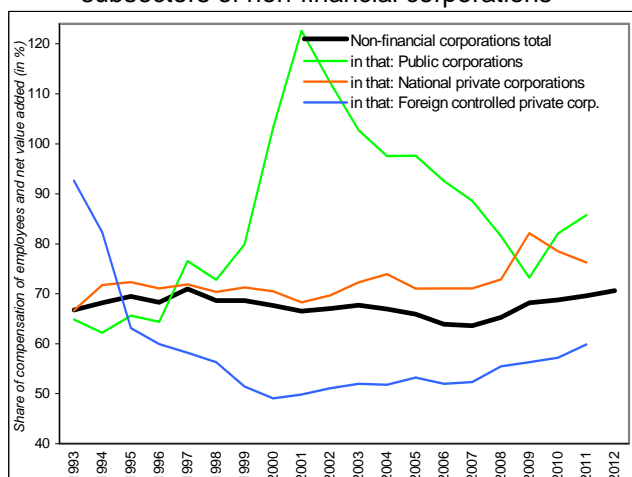
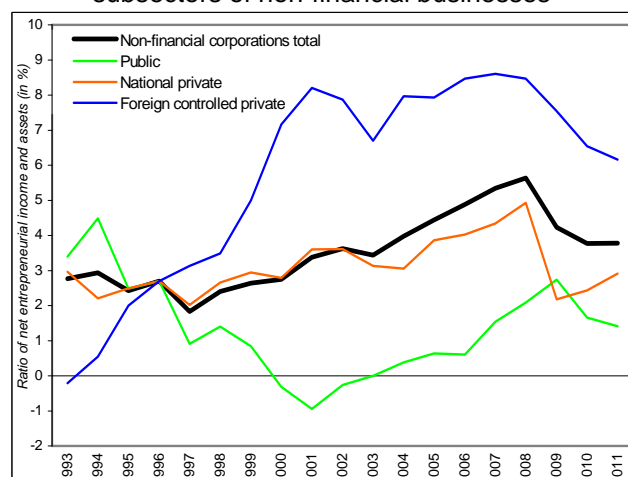


Chart 25 **Rate of return of non-financial corporations** (ratio of net entrepreneurial income (B.4n)* and assets (AN+AF); subsectors of non-financial businesses



¹ Net entrepreneurial income (B.4n) is the balancing item of the business income accounts, i.e. balancing item corresponding to the concept of profit before distribution and tax on income, as used in the business accounting.

Rate of return of non-financial corporations = $B.4n / (AN+AF) * 100$

Source: CZSO (national accounts)

In case of the CR includes the subsector of corporations under foreign controls all branches, subsidiaries and places of business (of non-residential businesses) on the CR territory. Share of individual subsectors of non-financial businesses markedly changed mostly in the 90s and following period of boom, as evidenced by the above-mentioned significant shifts of employment between subsectors.

Labour costs swallow two thirds of produced net value added of businesses...

Significant part of produced net value added is in the non-financial corporations sector immediately used to cover the operational costs, mostly the compensations to employees. These include mostly the gross wages and salaries (incl. benefits in kind) and also all social contributions paid by the employer. In the view of employer thus represent complete costs of employing labour force. Share of compensations paid to employees in net value added⁵ decreased in the circumstances of the business sphere in the CR mostly in years of boom, a turn occurred in year 2008 (for public non-financial corporations only in 2010), since that time the labour force costs cut higher and higher share of the net value added produced by businesses.

⁴ By the control of the company are meant the decisions regarding its economic behaviour due to the holding of more than one half of shares, resp. control via a packet of shares of more than one half of votes belonging to shareholders.

⁵ This share can be with a small simplification interpreted also as an inverse value of net margin rate of businesses (i.e. the share of net operational surplus on net value added).

... recession of the economy launched regardless of the ownership structure of businesses a mild increase of their share; companies attempt to sustain qualified employees

Businesses in times of recession attempted to sustain the qualified labour force (in the anticipation of future growth of orders) and searched the needing savings of costs in other areas than the expenditure on labour force. Sharp growth of the rate of labour force cost emerging in public non-financial corporations after 2000 is linked to the more extensive transformation of the ownership structure of businesses in the period of strong inflow of foreign direct investment directed mostly to the more perspective businesses.

Dominant position of businesses under foreign control did not majorly affected even the recession...

The mirror picture of the development of rate of costs of labour force provides the development of the rate of return of businesses. Since the second half of the 90s is obvious the dominant position of foreign controlled corporations (at times when the majority of net entrepreneurial income was still generated by firms controlled by the national private capital. Only in years 2000-2002 produced the firms with foreign owners a half of entrepreneurial income of all non-financial corporations in the CR, in 2009 it was just under two thirds. Deep recession of the economy adversely affected the rate of return of businesses regardless of the owner. However the most were hit (due to the fall of demand in exports destinations) the foreign controlled corporations, still compared to the national private corporations they sustained the relative rate of return on the double level.

...their rate of returns exceeds the level of private domestic businesses still more than one half

Chart **Property income balance**
26 (main types of incomes for sector of of non-financial corporations)

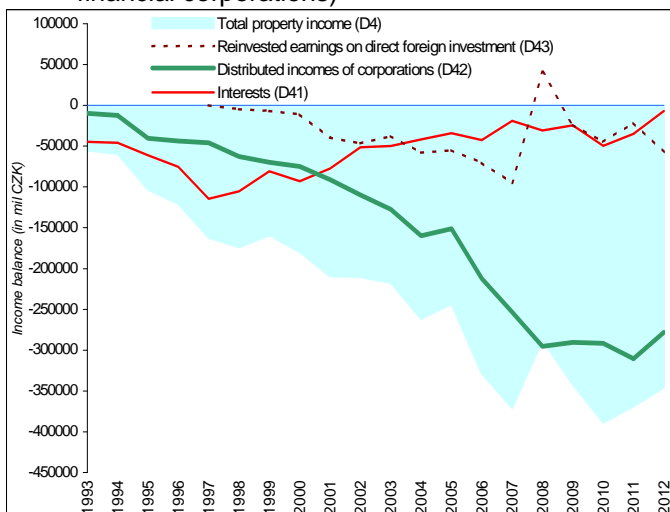
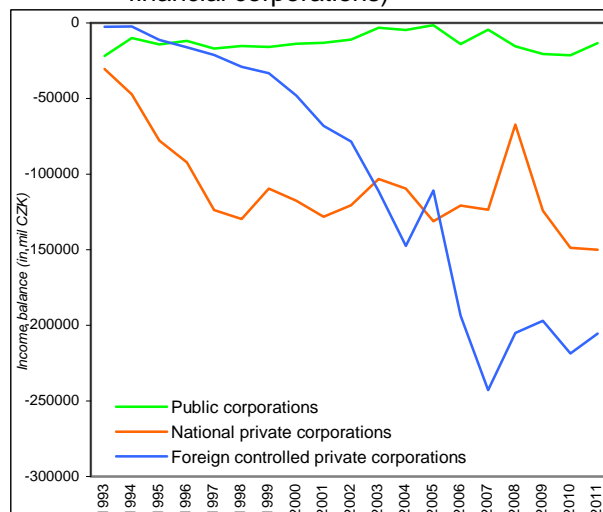


Chart 27 **Property income balance (D4)**
(comparison of subsectors of non-financial corporations)



Source: CZSO (national accounts)

In the 90s the high investment need of the businesses in the CR was mostly covered by loans from domestic banks, in the subsequent decade mostly by foreign capital

Non-financial corporations in the CR lost in the process of primary redistribution of income in years 2010-2012 until now record two thirds (in absolute terms yearly more than 350 bn crowns) of produced net operational surplus. Notable impact of owner income deficit is however for businesses in the CR a long-time phenomenon. Since 1995 the businesses have lost in the primary redistribution less than half of net operation surplus only twice (in 2005 and 2008). While in the 90s the under-capitalised domestic businesses searched sources of necessary investments mostly in the bank loans, in the later years they stemmed mostly from the massive inflow of foreign direct investment (mostly from period 1999-2002). High interest rates as well as the indebtedness of businesses were in the 90s the causes of deep negative balance from interests (in times of recession of years 1997-1998 paid the non-financial corporations for interest by 105-115 bn crowns more compared to their income from deposits).

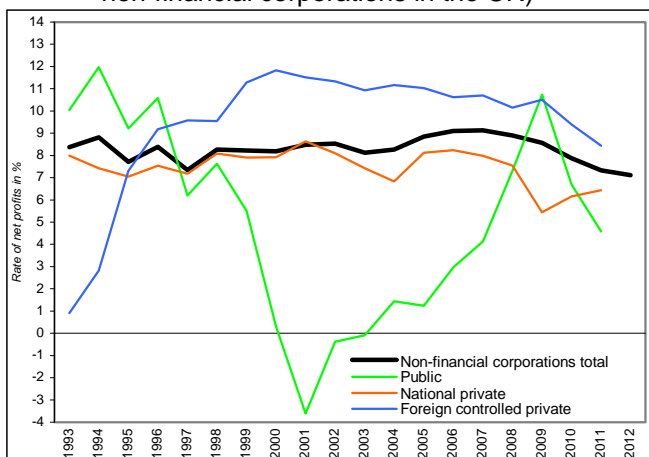
Recession halted the growth of outflow of dividends from the non-financial corporations sector in the CR, but businesses better repay the

Since year 2001 the negative balance from redistributed income of corporations (mostly in form of dividends) exceeds over the size of negative balance flowing from interests. Gradual deepening of the negative balance of owner income temporarily stopped for corporations in 2008 due to the marked strengthening of income (for national private corporations) from reinvested profits from foreign

loans

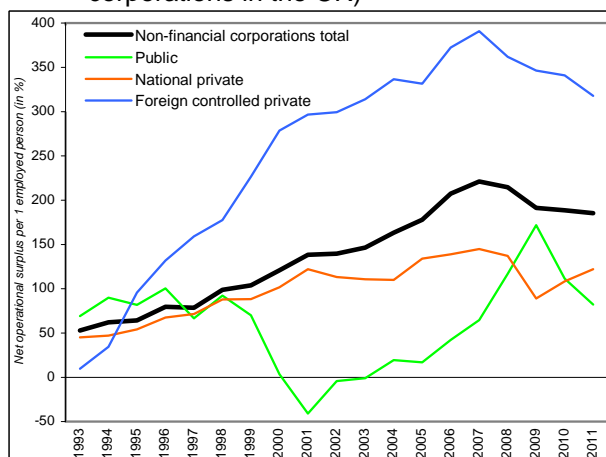
direct investment and from simultaneously sharp decline of transferred operation surpluses from foreign investment (for foreign controlled corporations). In times of recession the slump of the dividend balance for the non-financial corporations in the CR halted (mostly due to the influence of businesses under foreign control) and at the same time the businesses manage to be repaying loans (interest balance lowered between years 2010 and 2012 in the whole non-financial corporations sector from -50 bn crowns to -7 bn crowns).

Chart 28 Share of net operational surplus (B.2n) on total production (P.1) of non-financial businesses (comparison of subsectors of non-financial corporations in the CR)



recalculated jobs to full-time equivalent

Chart 29 Net operational surplus per 1 employed person (in thous. crowns) (comparison of subsectors of non-financial corporations in the CR)



Source: CZSO (national accounts)

Differences in the profitability rate for businesses by their ownership structure deepened during the boom, in recession convergent tendencies were apparent

Differences between subsectors of non-financial corporations in the long-time development of rate of profit, alternatively produced operational surplus per employed person give in the basic features a similar picture of business sphere in the CR as in case of its rate of return. The scissors open among businesses based on the type of prevailing owner especially at times of boom (among other also due to the larger changes of the ownership structure resulting from the inflow of foreign direct investment), in times of recession (second half of 90s, decade later resp.) there were apparent convergent tendencies (mostly for the profitability rate). Negative rate of profit of public non-financial corporations in 2001 was the result of deep year-on-year fall of gross value added in the group of these businesses accompanied by a stagnation of total costs per labour force. Negative impacts of the current recession put a mark on profitability but as well as on productivity. Productivity was also affected by a varying dynamics of employment in the different groups of businesses. Between years 2008 and 2011 the total employment decreased in foreign controlled corporations by 6.8 %, in private companies with prevailing domestic capital by 2.5 %, for businesses controlled by the public sector by 4.8 % (where opposed to the previous categories occurred the largest year-on-year decrease not until 2011).

Varying dynamics as well as timing of reduction of total employment among subsectors of business in times of recession

2.2.1. Investment rate

Differences in the investment rate between the subsectors of the non-financial corporations lower than for profits or productivity

Opposed to indicators covering other aspects of the performance of businesses (labour costs, rate of return, profitability, productivity) in case of investment activity (expressed by rate of gross investment) there are no differences between the assessed group of businesses so significant (which is valid especially for businesses with the prevailing private capital). With respect to size still less and less significant subsector of public non-financial corporations holds within the business sphere in the long-term the highest rate of investment. Exception was only the period of first half of 90s and year 2003 (when the value of acquiring tangible fixed assets was likely negatively influenced by higher sale of state property). Individual subsectors of businesses slightly differ in the long-time in the structure of gross fixed capital formation. Foreign controlled corporations still more often invest into acquiring of non-tangible fixed assets (e.g. SW, database, cultural and art works, geological exploration) and also prefer more the investments into new assets as

Long-term differences of businesses in the structure of gross fixed capital formation

opposed to the already used.

Chart 30 **Rate of gross investment of non-financial corporations in the CR**
(subsectors of non-financial corporations)

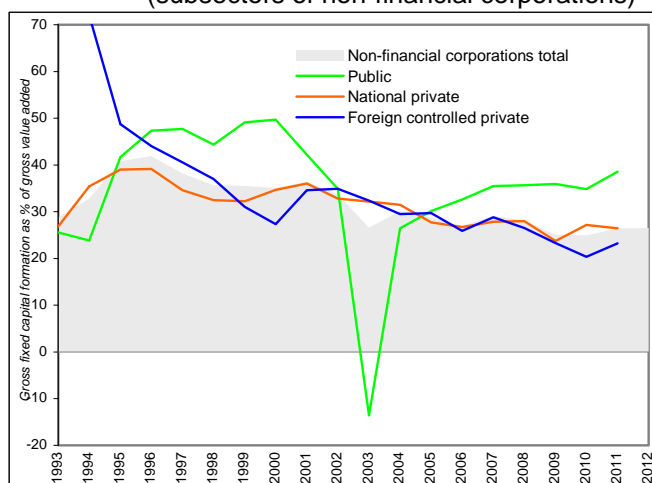
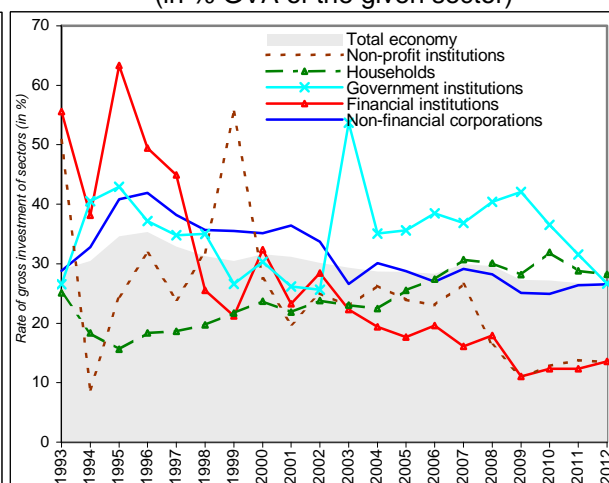


Chart 31 **Rate of gross investment of institutional sectors in the CR**
(in % GVA of the given sector)



⁷ Investment rate in more narrow conception i.e. gross fixed capital formation (P.51)/ gross value added (B.1g) * 100

Source: CZSO (national accounts)

Narrow and wider conception of investment; part of investment of businesses included in their intermediate consumption

Investments can be understood also in a wider conception (investment to inventories, acquiring of valuables or to land). When included also these items the excess of rate of investment of foreign controlled corporation over other businesses in the 90s is even more highlighted, the rate of investment of public non-financial corporations after 2008 also increases. However not even this conception can completely capture the investment behaviour of businesses. It does not involve e.g. the expenditures on research, education or marketing activities (these items can be found in total intermediate consumption and cannot be individually analysed by means of national accounts).

Differences in the rate of investment of various subsectors of non-financial corporations in the shadow of significant differences between various sectors of national economy

Differences in the rate of investment between various subsectors of businesses in the CR are in the long-term in the shadow of much more significant differences in the investment activity of different sectors of the national economy. The investment rate in the non-financial corporations sector fell slightly below the level of the whole economy only in the short time period, when these businesses in the CR were most hit by recession. On the contrary through the whole 90s and also the half of subsequent decade they belonged to the sectors with the highest investment activity. Significant contribution of inflow of foreign direct investment as well as processes of economic integration also played its role. In times of boom the highest rates of investment were reached by the government sector, whose investment activity was however significantly restricted by the saving measures in years 2010-2012. Despite of this government investment rate still however by the end of period maintained the level of the non-financial corporations.

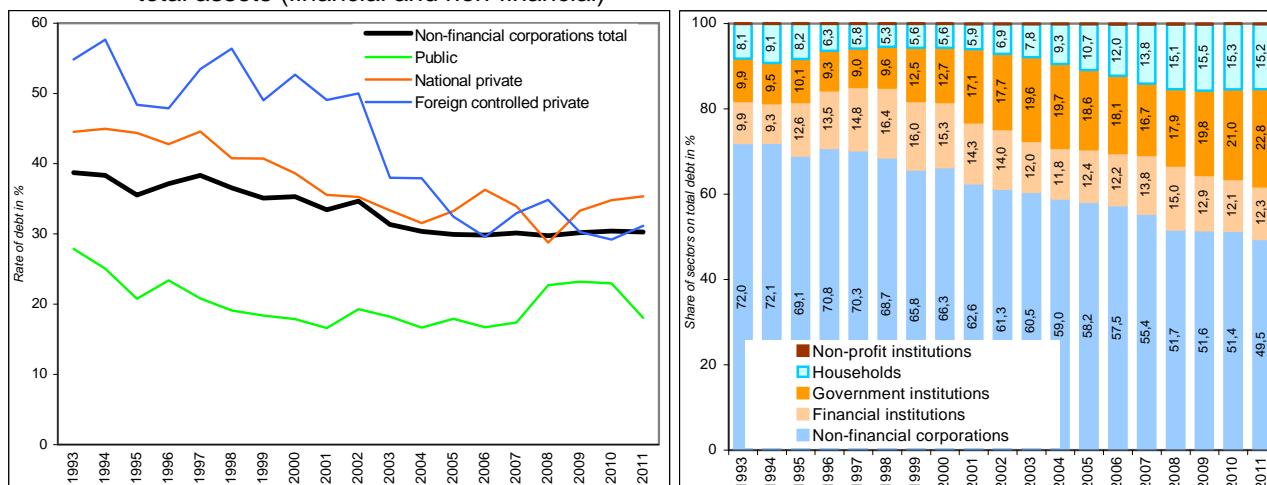
2.2.2. Debt ratio

Indebtedness in relation to non-financial businesses assets

Apart from the common transactions and accumulation of non-financial assets (capital) the performance of businesses is affected also by the accumulation of financial property (incl. the changes of property and liabilities resulting from random and formal influences and also due to the movement of prices). Important indicator derived from the relation between the property and liabilities balance of the non-financial corporations is the debt ratio⁶.

⁶ The total debt does not include the value of interests (AF.5 – shares and other securities). Their proportion on total liabilities of non-financial corporations in the CR oscillates in the long-term near 50 %.

Chart 32 Rate of debt of non-financial corporations in the CR, share of selected liabilities on total assets (financial and non-financial)* Chart 33 Share of institutional sectors on total debt* of the CR



*Sum of financial liabilities in the closing balance sheet: Securities other than shares (AF.3) + Loans (AF.4) + Other liabilities (AF.7) divided by sum of financial (AF) and non-financial (AN) assets

Source: CZSO (national accounts)

Opposed to the gradual fall of the debt ratio the non-financial corporations sector still holds the first place of the relatively most indebted sector of the Czech economy

The size of indebtedness reaches (in relation to the value of all assets) for the non-financial corporation sector the highest values of all institutional sectors in the CR. A high debt ratio was typical of businesses practically through the whole 90s, both for national private businesses as well as businesses under foreign control. While for national private businesses the debt ratio started to gradually fall down in the second half of 90s, for companies directed by foreign owners it fluctuated around a high level (50 %) until year 2002. Since 2005 the debt ratio for both groups of private businesses does not significantly differ and the indebtedness of the whole business sector stagnated since then.

Current recession has not led so far for non-financial corporations thanks to their prudential behaviour to a larger increase in the debt ratio

Compared to other sectors (mostly the government) the businesses were negatively influenced by the deep recession, to which they managed to flexibly react (high creation of savings in 2008, major lowering of costs as well as investment in 2009 and successful repayments of loans in the subsequent years). Despite this their debt ratio remained in 2011 the largest from all sectors (30 %), followed by the government sector (25.5 %), financial sector and households (similarly 15.5 %) and the least indebted non-profit sector (6.5 %).

Lower debt ratio of public firms affected also by a high value of their property

Debt ratio of companies shows a significant connection to the investment need of companies realised in the preceding years, it is also however affected by the size of the assets. In this sense can be partially explained the lower indebtedness of the public non-financial companies in the long-term featuring a relatively high value of their property (e.g. buildings, land). Value of non-financial assets of public firms shared at the end of 2012 on the aggregate value of these assets in the whole non-financial corporations sector by a complete one quarter.

High dynamics of the growth of indebtedness of individual sectors situated in different periods

Individual sectors differed also by a varying course of the debt dynamics. In the period of subsiding boom as well as mild recession (1995-1998) the most grew the debt (in relation to total assets) in the financial sector, in the period 1999-2003 for government institutions, in years of culminating boom (2004-2007) for households (including households as consumers as well as small entrepreneurs), which from year 2008 the government sector again took the leading position in debt dynamics.

Businesses saturated a high investment need by the bank loans mostly in the 90s, later it was replaced by a foreign capital ...

With the debt ratio of businesses is also connected the volume of loans acquired in the past. Loans of financial institutions active in the CR were the key source of funds covering the high investment need of businesses mostly in the 90s, afterwards their significance started gradually falling, which is apparent from the view of banks themselves as well. While still at the end of 2002, the loans to non-financial corporations formed a half of the value of all client loans provided by

commercial banks in the CR, at the end of boom period they fell to 40 % and in the half of 2013 they reached only a one third share.

...and since 2009 the businesses lost the position of dominant loan client of banks (to the benefit of households)

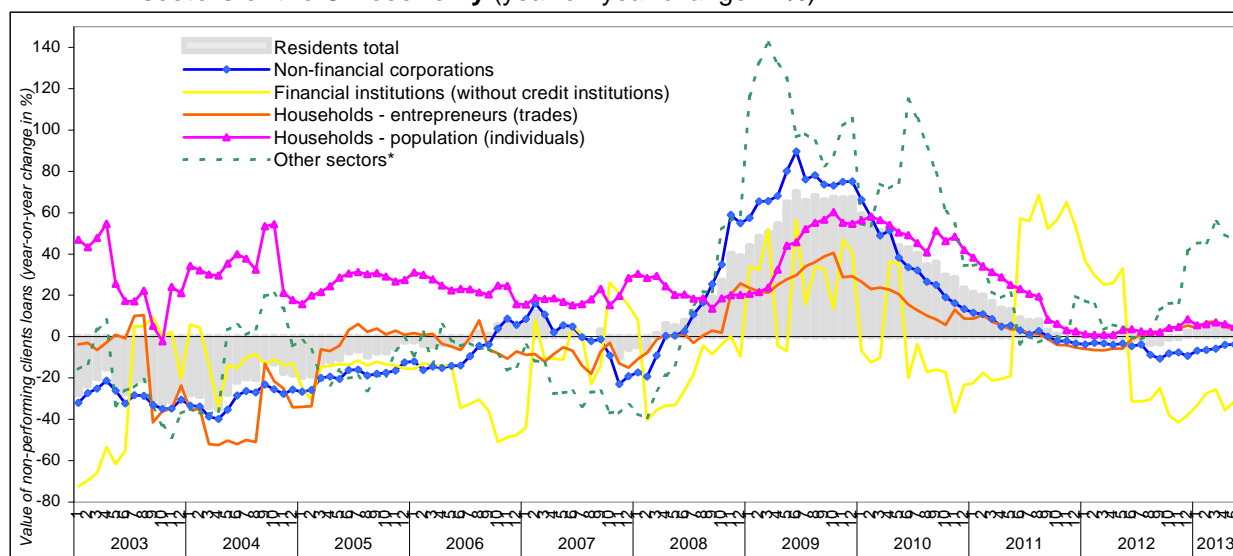
Mostly with the expansion of the mortgage market households assumed the role of the dominant client (as consumers). From May 2009 the volume of loans provided to households overtook the loans to non-financial corporations. From the half of 2010 the strong growth of loans provided to households slowed down and the division of loans between institutional sectors did not change to a large extent in the subsequent period any more.

2.2.3. Loans in default

The growth of loans in default as one of the signals of coming recession turned up firstly for businesses, later for small entrepreneurs and roughly with a year's lag also for households

Financial health of businesses is reflected also in the frequency of loans, which are paid off with a longer delay (loans in default, resp. non-performing loans)⁷. Long-term development of year-on-year changes of the volume of loans evidences a narrow connection with the business cycle – mostly for non-financial corporations and small entrepreneurs. At the same time there is obvious a different onset of first impacts of strong economic weakening during year 2008. In the business sector the size of loans in default increased already at the beginning of Q3 2008, for small entrepreneurs it eventuated only in the last two months of the same year. In case of households (population) the dynamics of the value of problematic loans started to accelerate since the second half of 2009 (signs of prudential behaviour of households occurred by the end of 2008 by the decrease of year-on-year dynamics of the consumer credit).

Chart 34 Dynamics of non-performing clients loans (in total loans) of the selected institutional sectors of the CR economy (year-on-year change in %)



⁷ Other sectors include: government and non-profit institutions and also non-residents

Note: In financial institutions are not from year 2008 included saving and credit institutions.

Source: CNB

Continuous year-on-year growth of the size of loans in default in the last decade only in the household sector

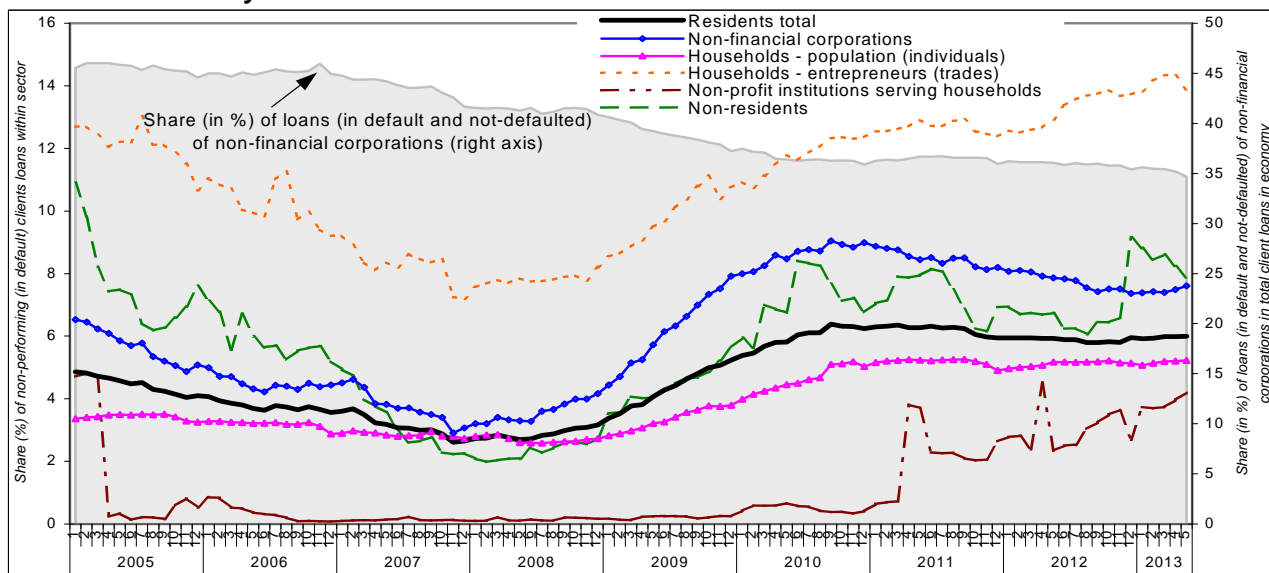
Households as the only institutional sector of the economy kept at least a mild growth of the size of troubled loans throughout the whole last decade (while at times of boom these were sustained by the high dynamics of all closed consumer credit, in years 2011-2012 they were more affected by the undiminishing volume of loans for housing). On the contrary in the non-financial corporations sector the volume of troubled loans started since the second half of 2011 year-on-year slightly fall. It was due to the more prudent approach of businesses as well as banks themselves when concluding new loan contracts.

We gain even more precise information regarding the payment ability in the

⁷ Include loans, whose repayments of interest or principal are delayed by 90 days or more, or repayments of interest for 90 days or more were capitalised, refinanced or postponed based on agreement, or repayments exceeded the deadline by less than 90 days, but exist other good reasons (such as debtors announcement of bankruptcy) leading to doubts, that repayments will be executed in full amount.

individual sectors of the economy, when we compare the size of loans in default with the aggregate balance of loans in these sectors. The share of troubled (non-performing) loans reached for all sectors a long-time minimum (data are available since 2002) at the break of years 2007 and 2008. In this period, it was also achieved a minimal difference in the share of loans in default between two main segments of the loan market – non-financial corporations (2.9 %) and households (2.8 %).

Chart 35 Share of non-performing clients loans (in total loans) of institutional sectors of the CR economy



Source: CNB

Growth of share of loans in default was in crisis year 2009 for the non-financial corporations the sharpest among all sectors of the economy...

...mild improvement in the subsequent two years resulted from a prudent investment policy of businesses together with more strict set up of loan terms of banks

Adverse development of the weight of problematic loans in the sector of small entrepreneurs since the beginning of recession still continues

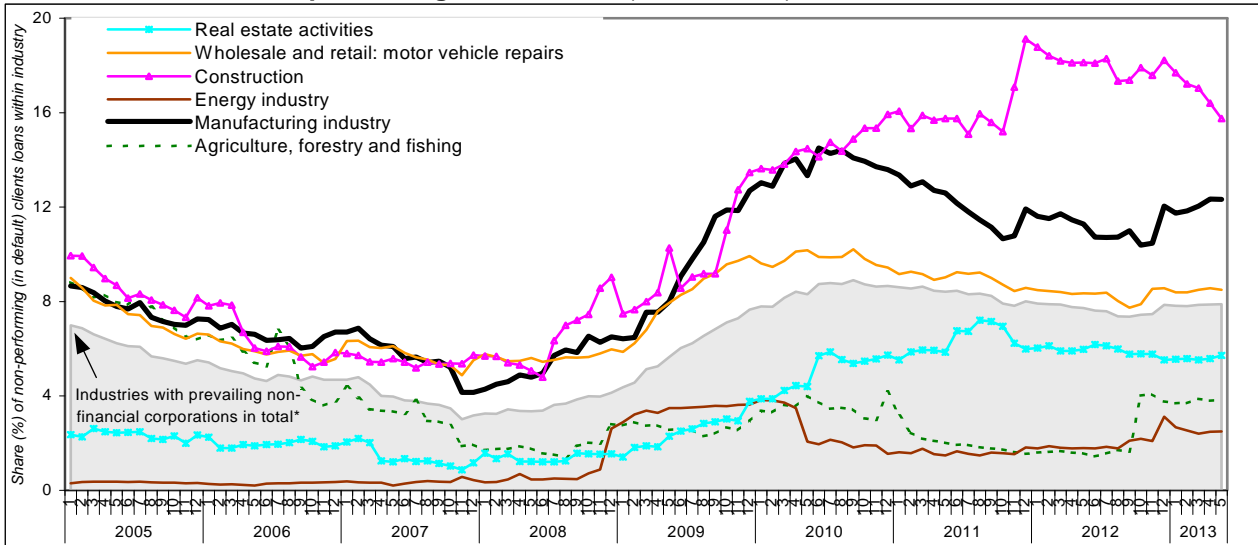
Proportion of loans in default since 2005 the highest in restaurants, accommodation and food service activities; adverse development launched with recession lasts also in construction, on the contrary improvement in trade and manufacturing industry

Crisis year 2009 was reflected in all institutional sectors in marked increase of the proportion of problematic loans. In business sphere this process started the first (in half of 2008), was the most dynamic (during crisis year the share of loans in default increased from 4.4 % to 8.0 %), but it also reached the first its peak up-to-date (9.0 % at the end of Q3 2010). Favourable development in the business sphere halted at the end of 2012. The share of troubled loans of businesses increased during the first half of 2013 by 0.2 p.p. and remained one quarter above the level of whole economy. Relatively favourable development for businesses in the last two years can be explained by the above mentioned factors – tightening of the terms of loan providers (as a reaction to sharp growth of troubled loans in 2009) and also a more responsible behaviour of companies (repaying the former loans and very cautious growth of the investment rate).

On the contrary, the share of loans in defaulted of small entrepreneurs most likely has not peaked yet, with its growth lasting for already more than four years and during 2013 exceeding the 14% boundary. It is probably the effect of long-term unfavourable development in certain industries hit mostly by the drop of private consumption (construction, trade, food service activities etc.). In the view of banks themselves, the sector of small entrepreneurs however composes in comparison to the business sector and population a relatively small segment of the loan market – it shared on the problematic loans of all sectors below 3.5 % in the half of 2013.

Ongoing economic recession led among others also to a marked differentiation of industries according to the proportion of troubled loans. While the manufacturing industry (represented especially by the non-financial corporations) managed to improve its payment morals towards banks already during 2010, in case of constructions the signs of improvement can be traced only to the beginning of 2013. Unfortunately, the extent to what the sector of small entrepreneurs shares on the adverse result of loans in construction cannot be from the commonly available data discerned, which is anyway valid also in case of trade, whose development was however between years 2010 and 2012 notably more favourable.

Chart 36 Share of non-performing clients loans (in total loans) of the selected industries of the CR

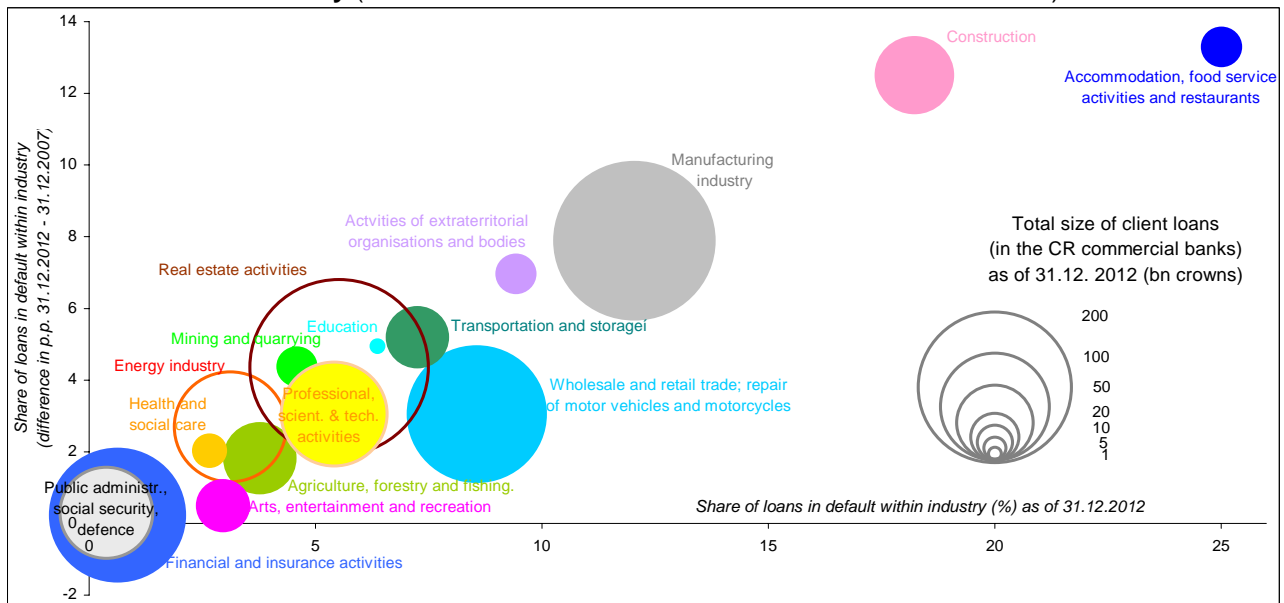


*) Includes all codes of economic activities classification (CZ-NACE) apart from financial and insurance activities (64-66), predominantly public services (84-91, 94) and households (97-98) Source: CNB

In small segments of the market – energy industry, mining industry and primary sector – the proportion of troubled loans significantly below the level of whole economy

Recession on the contrary did not influence the payment morals towards banks of economic entities with predominating focus on primary sector much. If we omit the loan specific industries (financial sector and public services), then it was just the primary sector, which as the only industry decrease the share of its loans in default between years 2005 and 2013. Relatively small segment with respect to size the accommodation, restaurants and food service activities records up to year 2005 the highest share of loans in default, in fact continuously (only in 2010 it was exceeded with a worse payment morals by construction and for a short time also by manufacturing industry). Out of industries with a prevailing non-financial businesses display a good payment morals in the long-terms the energy industry and mining industry.

Chart 37 Share of non-performing clients loans (in total loans) and its change in main industries of the CR economy (between 31 December of 2007 and 31 December of 2012)



Source: CNB

Manufacturing industry contributed between years

In times of recession the payment morals towards banks worsened the most in construction and the accommodation, restaurants and food service activities.

2007 and 2012 to the growth of size of non-performing loans of all industries (with the prevailing non-financial corporations) by one third

However these industries participated on the size of loans in default of all industries with a prevailing non-financial business in the half of 2013 still only by one seventh. Key manufacturing industry in the last five years due to the impact of very adverse development in 2009 also considerably increased its size of loans in default. Because of its large weight (also on the loan market) contributed this industry to the increase of the total volume of loans in default (of all industries with prevailing non-financial businesses) between years 2007 and 2012 by one third.

Significant differences in the representation of loans in default between branches are also conditioned by structural differences

Large inter-branch differences in the representation of loans in default in the last years are not only the result of the current economic situation in individual branches. They also reflect the different investment need given by the nature of various branches or the investment policy in the 90s. Significant role is most likely played by the ownership structure (public businesses, private businesses national and under foreign control), as well as differences in size of entities in individual branches (large companies, small and medium enterprises, small entrepreneurs). Preference for other financial sources apart from bank loans must also be mentioned (non-bank intermediaries, investment subsidies from public sources etc.).