STUDY ON

‘MONITORING OF SECTORAL EMPLOYMENT’

ACCOUNTING NO: SI2.577818

CONTRACT NO. VC/2010/0064

FOR

EUROPEAN COMMISSION

DG EMPLOYMENT, SOCIAL AFFAIRS AND INCLUSION

FICHES

2011-12-17

Synthetic Fiche

Agriculture, forestry and fishing (NACE A)

Value added

Figure 1: Share in total value added

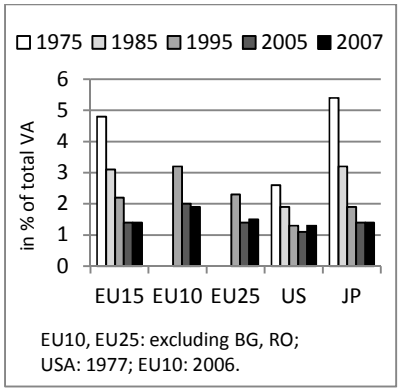
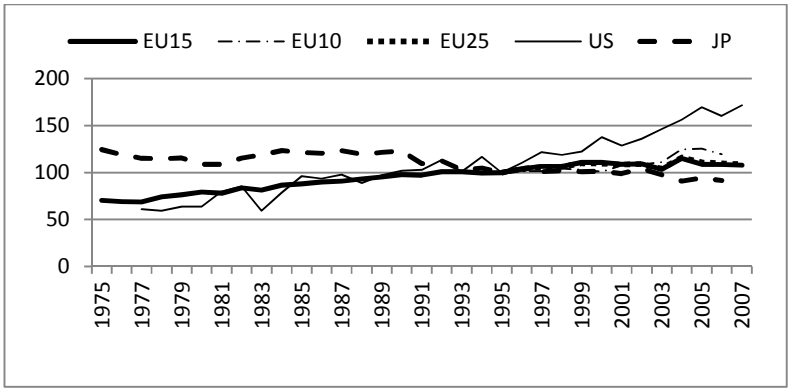


Figure 2: Value added, Index: 1995=100



The share of agriculture, forestry and fishing (A) in total value added (VA) in the EU-15, US and Japan, for which data are available for 1975-2007, fell substantially throughout the whole period (Figure 1). In the EU-15 it amounted to 4.8% in 1975 and declined to 1.4% in 2007. Alike, in Japan the share fell from 5.4% to 1.4% in 2006. By contrast, agriculture in the US amounted to only 2.6% of total value added already in 1977 and declined to 1.1% in 2007. In the EU-10 (i.e. the countries which entered the EU in 2004) agriculture still amounted 3.2% of total VA after the initial stages of the transition. Thereafter its share in total VA also declined to 1.9% in 2007. Accordingly, in the EU-25, the share of agriculture in total VA fell from 2.3% in 1995 to 1.5% in 2007. In the period 1975-2007 the US experienced almost continuous real growth in VA in agriculture. In the EU-15 real, however, growth in VA lasted only until the late 1990s, from then on stagnation can be observed. In Japan VA remained constant until the early 1990s, thereafter VA in agriculture declined gradually. In the EU-10 only minor growth was recorded after 1995, but this had only a small effect on the development of VA in the EU-25 which remained more or less unchanged.

Productivity

Figure 3: Value added, growth in %, annual av.

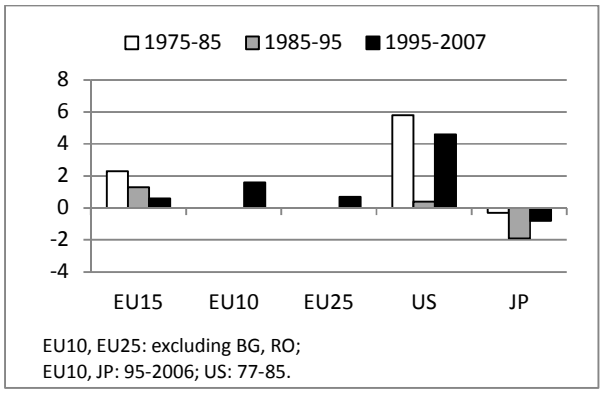
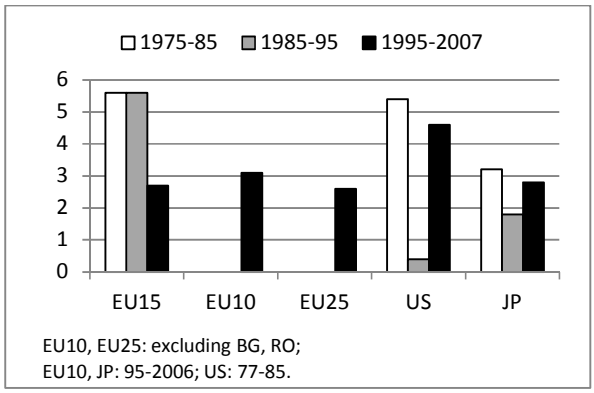


Figure 4: Productivity (VA/hours worked) growth in %, annual av.



In the EU-15 the annual 5.6% labour productivity growth in agriculture (VA per hour worked) was comparatively high in 1975-1995 but fell to 2.7% a year in 1995-2007 (Figure 4). In the US, productivity growth was also high with 5.4% in the years 1975-1985 and 4.6% from 1995 onwards. Productivity growth, by contrast, was almost negligible in the period 1985-1995. In Japan growth in productivity remained comparatively stable throughout the whole period, amounting about 2.6% a year. In the EU-10, productivity grew by 3.1% a year in 1995-2007, which was only slightly higher than in the EU-15. Therefore also in the EU-25 productivity grew quite similarly with 2.6% a year.

Employment and hours worked

Figure 5: Share in total employment

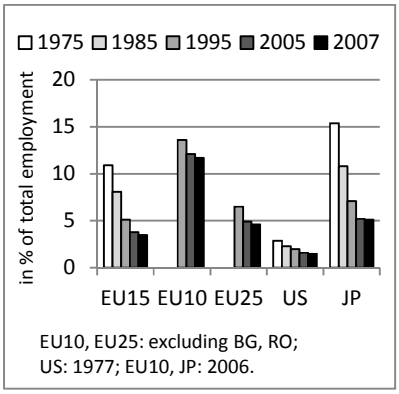


Figure 6: Employment, growth, annual av.

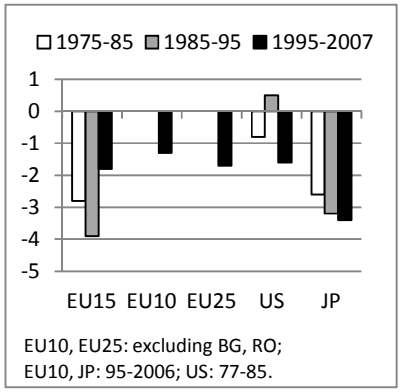
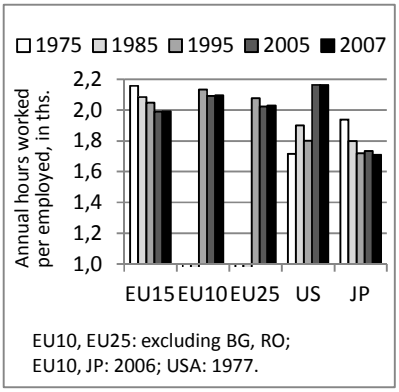


Figure 7: Av. hours worked per employed



The share of agriculture in total employment for the countries observed (Figure 5) also fell substantially over the period covered. In the EU-15, agriculture accounted for 10.9% of total employment in 1975 but for only 3.5% in 2007. In the US the share fell from 2.9% to 1.5% over the same period, while in Japan it declined from 15.4% to 5.1%. In the EU-10 productivity levels are still much lower in agriculture compared to the EU-15. Therefore the share of that sector in total employment was with 13.6% still quite high in 1995. Also thereafter the share fell only slightly to 11.7% until 2007. In the EU-15 and the EU-25 alike the share of agriculture in employment also declined from 6.5% to 4.6% over these 12 years. Except in the US, where employment in agriculture rose slightly from 1985 to 1995, the number of employed in the sector fell in all other described parts of the world throughout the given period (Figure 6). In the EU-15 the rate of decline reached almost 4% from 1985 to 1995, but moderated afterwards to 1.8%. In the US employment in agriculture remained almost stable until 1995; thereafter it declined by 1.6% p.a. By contrast, in Japan rates of decline tended to go down further, reaching 3.4% in the period 1995-2007. In those 12 years also in the EU-10 a decline of 1.3% p.a. could be observed, alike in the EU-25 with 1.7%. In the EU-15 average annual hours worked per person employed in agriculture amounted to 2157 hours in 1975 (Figure 5). In the following three decades the average fell slightly to 1992 hours in 2007. In Japan, hours worked per employed were already much lower than in the EU-15 in 1975 (Figure 5). Thereafter they declined gradually from 1938 hours to 1710 in 2007. In the US, by contrast, the average rose from 1716 to 2164 hours a year throughout the period. In the EU-10 average hours worked declined only slightly to 2096 a year in 2007.

Synthetic Fiche

Manufacturing (NACE C)

Value added

Figure 1: Share in total value added

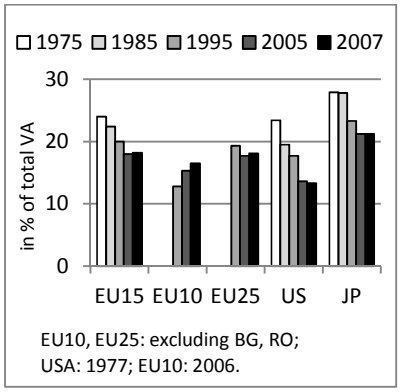
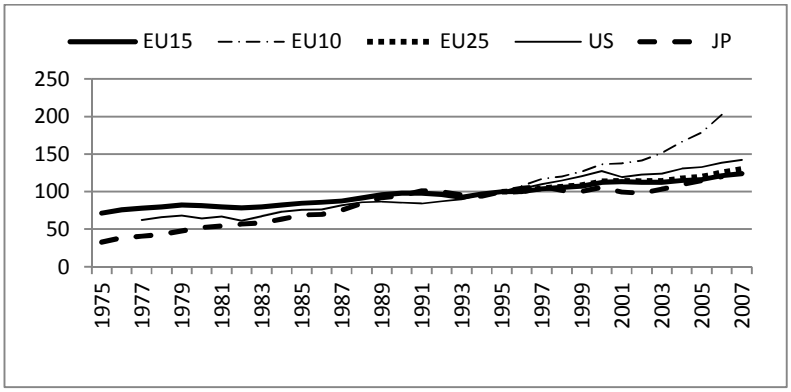


Figure 2: Value added, Index: 1995=100

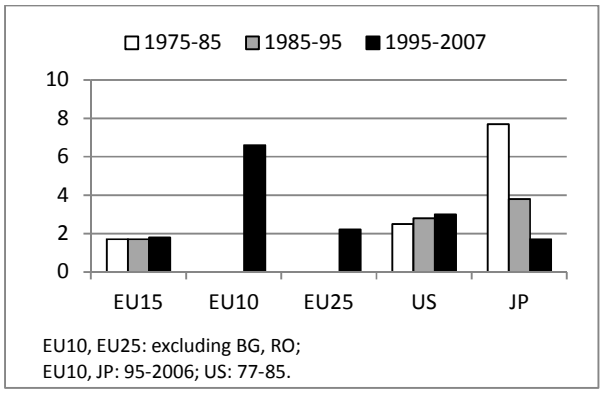


In general, the share of manufacturing (C) in total value added (VA) in the EU-15, US and Japan, for which data is available for 1975-2007, gradually dropped throughout the whole period (Figure 1). In the EU-15 it amounted to 24% in 1975 and declined to 18% in 2007. In the US the share was similar to the EU-15 in 1977 but dropped more sharply due to higher total VA growth in the subsequent decades to almost only 13% in 2007. By contrast, in Japan manufacturing amounted to not less than 28% in total value added in 1975 and remained at that level until about 1985. From that time on also here a decline of relative importance set in. Nevertheless, the share in total VA still accounts for 21% in 2006. In the EU-10, for which data is available only from 1995 onwards, after a process of deindustrialization in the course of the transition crisis in the first half of the 1990s, a period of reindustrialization started from 1995 onwards. While in 1995 manufacturing accounted for only 13% of total VA, its share rose to at least 16.5% until 2006. Thus in the EU-25 the share of the manufacturing sector in total VA fell only slightly from 19% in 1995 to 18% in 2007. Figure 2 shows that until the beginning of the 1990s real growth in VA was strongest in Japan and lowest in the EU-15. From that time onwards VA growth was higher in the US than in Japan and the EU-15. In the EU-10 catching-up, starting in 1995 was substantially swift which, however, did not lead to a VA growth in the EU-25, being much higher there compared to the EU-15.

Productivity

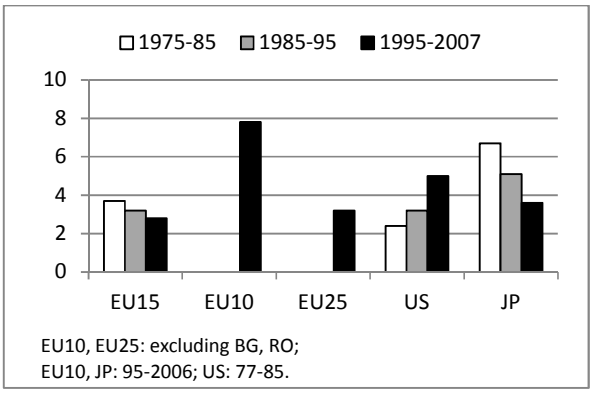
In the EU-15 growth in productivity (VA per hour worked) declined gradually from 3.7% p.a. in the period 1975-1985 to 2.8% in 1995-2007 on average per year (see Figure 4). In the US productivity growth was with 2.4% p.a. quite low in 1977-1985 and rose slightly to 3.2% in 1985-1995. Over the period 1995-2007 annual productivity growth accelerated to 5% which was partly driven by ICT technologies. Japan experienced productivity growth of 6.7% p.a. in 1975-1985, thereafter average annual growth in productivity still remained at 3.6% in 1985-2006. In the EU-10 productivity rose by not less than 7.8% p.a. in 1995-2007, predominantly driven by a catching-up process. Due to the low weight of the EU-10 in the EU-25 country group productivity growth was with 3.2% p.a. only slightly higher in the EU-25 compared to the EU-15 in 1995-2007.

Figure 3: Value added, growth in %, annual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

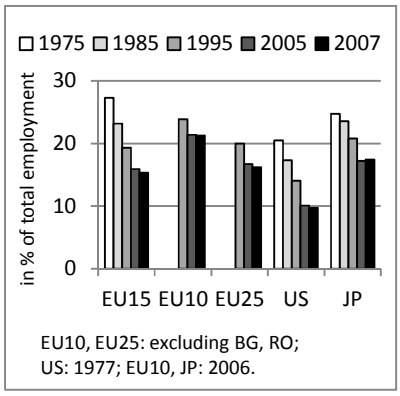
Figure 4: Productivity (VA/hours worked) growth in %, annnual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

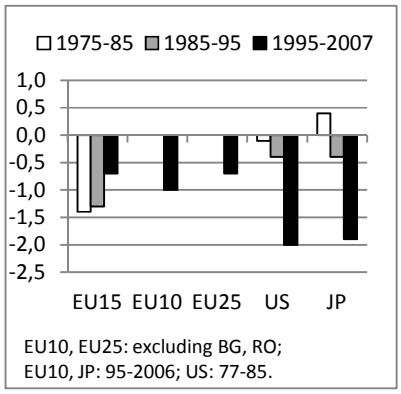
Employment and hours worked

Figure 5: Share in total employment



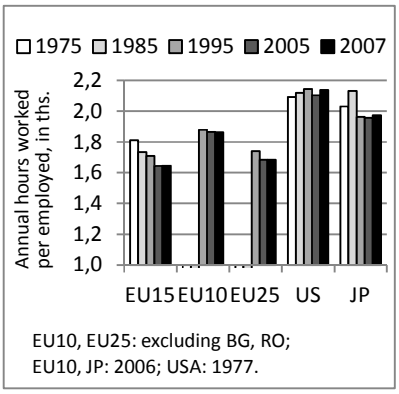
EU10, EU25: excluding BG, RO;
US: 1977; EU10, JP: 2006.

Figure 6: Employment, growth, annual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

Figure 7: Av. hours worked per employed



EU10, EU25: excluding BG, RO;
EU10, JP: 2006; USA: 1977.

As in value added also in employment the shares of manufacturing fell (see Figure 5), however, more pronounced due to the stronger productivity growth in this sector compared to services sectors. In the EU-15 in 1975 manufacturing accounted for 27% of total employment; until 2007 the share had dropped to 15%. In the US it amounted to 21% in 1977, falling to about 10% in 2007. In Japan in the same period it declined from 25% to 17% in 2006. Also in the EU-10 the catching-up in productivity levels let the share of manufacturing in employment descend slightly from 24% to 21% in 2007. Thus also in the EU-25 the share declined from 20% in 1995 to 16% in 2007. Only Japan experienced some employment growth in manufacturing in the period from 1975-1985. Apart from that, employment dropped in all countries and country groups throughout the period analysed (see Figure 6). While in the EU-15 the annual decline became more moderate over time, in the US and Japan the drop was especially steep in the period from 1995 onwards with -2% and -1.9% p.a. In the EU-15 the 1812 hours worked per employed person annually in 1975 were already much below the levels of the US and Japan (see Figure 7). In the following three decades the level fell gradually to 1645 hours in 2007. In the US throughout the period observed the amount of hours worked remained stable at an average 2120 hours per year. In Japan, worked hours rose until the end of the 1980s but declined slightly afterwards. Still, the level was with 1973 hours per year in 2006 much higher than in the EU-15. In the EU-10 no changes can be detected in the short period from 1995 to 2007; on average employees worked 1870 hours per year. The level of hours worked per person is only slightly higher in the EU-25 compared to the EU-15.

Synthetic Fiche

Construction (NACE F)

Value added

Figure 1: Share in total value added

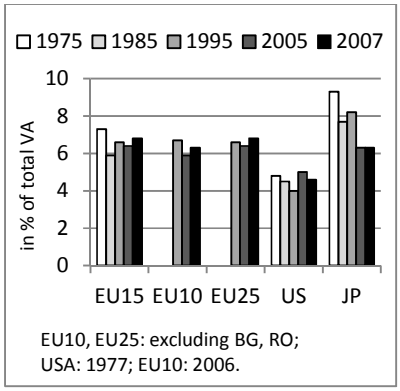
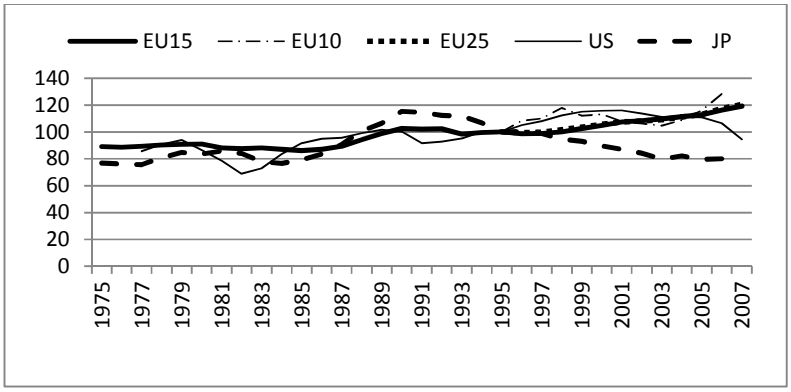


Figure 2: Value added, Index: 1995=100

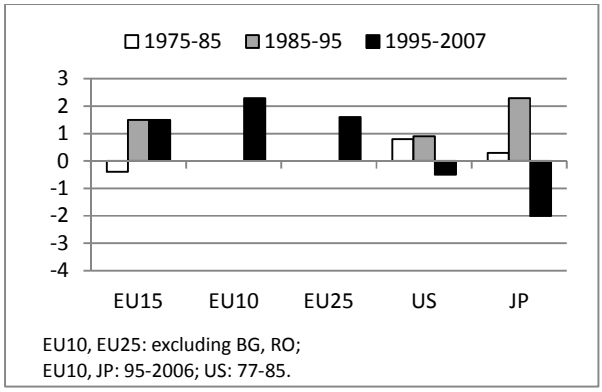


The share of construction (F) in total value added (VA) in the EU 15 and the US remained quite stable from 1995 to 2007. However, in the EU-15 it amounted to 7.3% in 1975 and 6.8% in 2007, while in the US the share was somewhat lower with 4.8% in 1977 and 4.6% in 2007. By contrast, in Japan it fell from 9.3% in 1975 to 6.3% in 2007. The situation in the EU-10 was comparable to that in the EU-15. Here the share of construction in total VA amounted to 6.7% in 1995 and 6.3% in 2007. Also in the EU-25 the share accounted 6.8% in total VA in 2007. In the EU-15 value added of the construction sector remained quite stable in real terms except for two distinct periods. From the mid-1980s until the early 1990s and in the period after 1997 value added grew continuously. In the US stronger fluctuations in VA could be observed in the construction sector. Real growth took place in the periods 1977-1979, 1982-1988 and 1991-2001. Between those three phases quite substantial contractions could be observed. After 2001 value added in construction declined gradually until 2005, thereafter it deteriorated sharply. In contrast, in Japan value added remained quite constant until a period of comparatively strong growth set in, lasting from 1984 until the early 1990s. Thereafter Japan experienced a continuous decline of VA in construction in real terms. In the EU-10, VA grew strongly from 1995 to 1998, but declined afterwards until 2003. From that time on VA boomed in construction until the economic crisis. The development of VA in construction in the EU-25 does not differ much from that in the EU-15 in the period 1995-2007.

Productivity

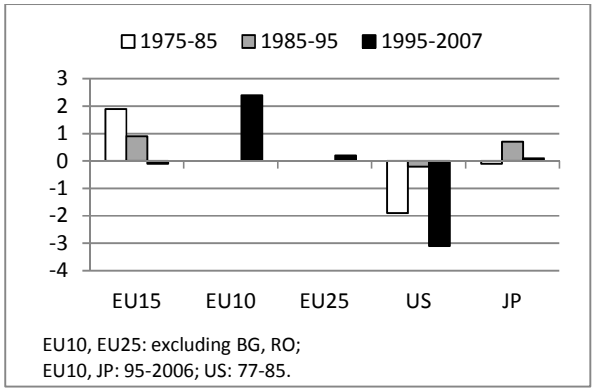
In the EU-15, growth in labour productivity in construction (VA per hour worked) grew by 1.9% a year in 1975-1985 and by 0.9% a year in 1985-1995 (Figure 4). Thereafter, labour productivity remained constant. In the US, by contrast, productivity levels fell throughout the whole period, declining strongly from 1975 to 1985 and after 1995, while the reduction was only slight from 1985 to 1995. In Japan labour productivity levels remained almost constant, except for the period from 1985 to 1995, when slight growth of 0.7% a year was observed. Strongest labour productivity growth was recorded in the EU-10 from 1995 to 2007 with 2.4% a year.

Figure 3: Value added, growth in %, annual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

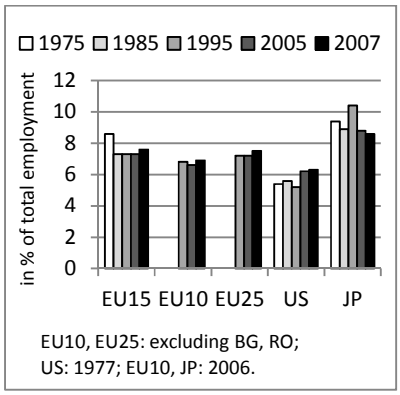
Figure 4: Productivity (VA/hours worked) growth in %, annual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

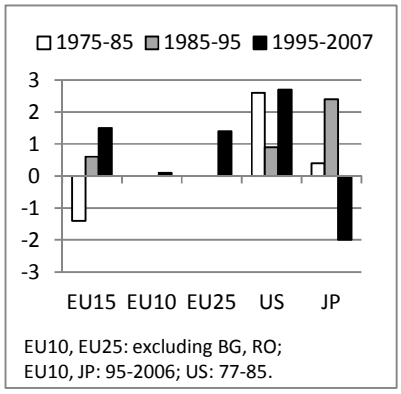
Employment and hours worked

Figure 5: Share in total employment



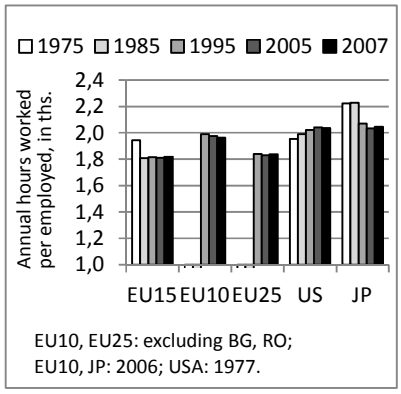
EU10, EU25: excluding BG, RO;
US: 1977; EU10, JP: 2006.

Figure 6: Employment, growth, annual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

Figure 7: Av. hours worked per employed



EU10, EU25: excluding BG, RO;
EU10, JP: 2006; USA: 1977.

The share of construction in total employment (Figure 5) also remained quite constant from 1975 to 2007 in all regions covered. In the EU-15, in 1975 construction accounted for 8.6% of total employment and for 7.3% in 2007. In the US, the share rose slightly from 5.4% to 6.3% over the same period, while in Japan, after rising from 9.4% in 1975 to 10.4% in 1995, it declined to 8.6% in 2007. In the EU-10, the share of construction in total employment remained constant from 1995 to 2007 at almost 7%, while in the EU-25 it has risen slightly from 7.2% in 1995 to 7.5% in 2007. In the EU-15 also the number of employed persons fell from 1975 to 1985 (Figure 6). From 1985 to 1995 growth in employment amounted to 0.6% a year, thereafter to 1.5%. In the US employment in construction rose by more than 2.5% in the two periods from 1975 to 1985 and from 1995 onwards, while the growth rate was with 0.9% a year much lower from 1985 to 1995. Much more distinct were the three periods covered in Japan. A rise of 0.4% a year from 1975 to 1985 was followed by a period of strong growth in employment of 2.4% a year, while after 1995 employment fell by 2% a year. In the EU-10 employment remained unchanged in construction over the period 1995 to 2007. In the EU-15, average annual hours worked per person employed in construction fell from 1945 to about 1800 hours from 1975 to 1985 and remained constant thereafter (Figure 7). The level of hours worked was in 1975 with 1953 hours quite similar in the US. However, thereafter it rose slightly to 2036 hours a year in 2007. In Japan the level of hours worked was in 1975 with over 2200 hours a year much higher than in the EU-15 and the US. After 1985, however, it

dropped and amounted to about 2050 hours a year. In the EU-10 the level of hours worked remained unchanged and is with almost 2000 hours a year in 2007 somewhat higher than in the EU-15.

Synthetic Fiche

Wholesale and retail trade (NACE G)

Value added

Figure 1: Share in total value added

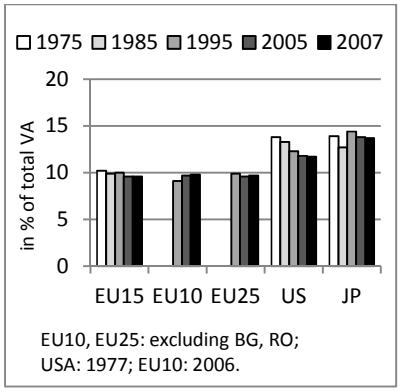
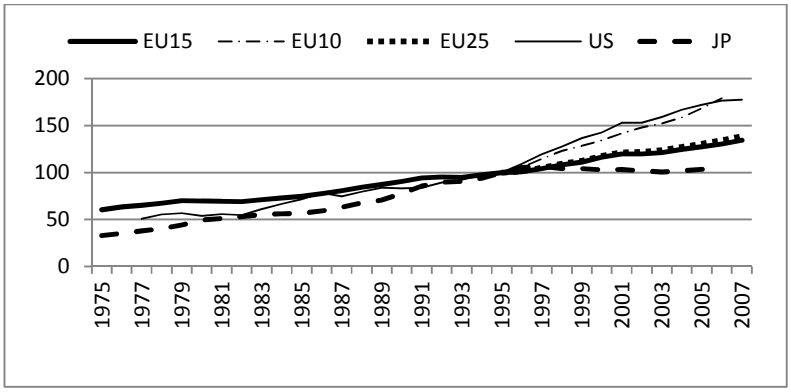


Figure 2: Value added, Index: 1995=100



The share of wholesale and retail trade (G) in total value added (VA) remained relatively constant in the EU-15 and Japan, in the years 1975-2007, and fell gradually throughout the whole period in the US (Figure 1). In the EU-15 it amounted to 10.2% in 1975 and declined only slightly to 9.6% in 2007. In the US and Japan the share was with almost 14% in 1975 much higher compared to the EU-15. While it remained constant in Japan, it gradually fell in the US to 11.7% in 2007. The share of wholesale and retail trade in total VA in the EU-10 (i.e. the countries which entered the EU in 2004) rose slightly from about 9% in 1995 to about 10% in 2007, which is comparable to the EU-15. From 1975 to 1995 value added rose quite evenly in real terms in all regions covered, however, strongest in Japan and somewhat slower in the EU-15 (Figure 2). Thereafter VA growth picked up in the US, while becoming more sluggish in the EU-15. In Japan the level of VA in wholesale and retail trade remained constant after 1995. The strongest growth of VA after 1995 could be observed in the EU-10, where it rose by 5.4% a year. Therefore also in the EU-25 value added grew with 2.8% a year somewhat faster than in the EU-15.

Productivity

Figure 3: Value added, growth in %, annual av.

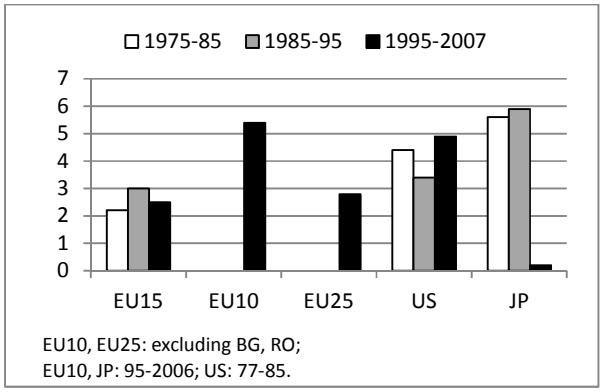
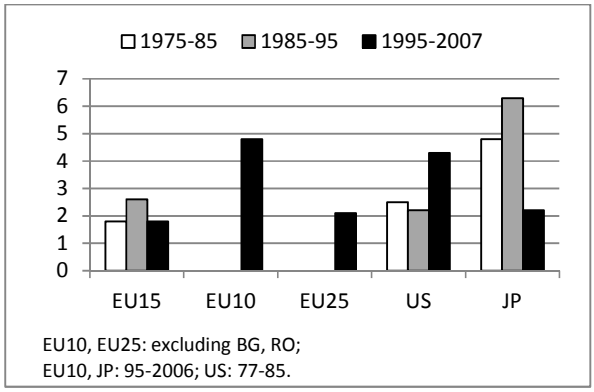


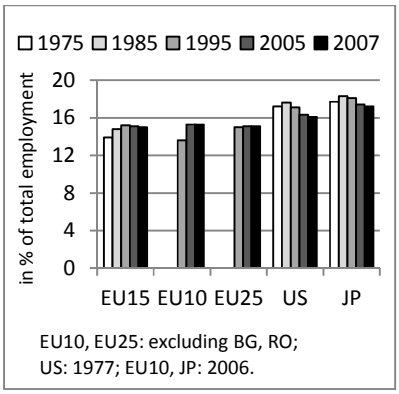
Figure 4: Productivity (VA/hours worked) growth in %, annual av.



In the EU-15, also growth in labour productivity in wholesale and retail trade (VA per hour worked) remained quite constant throughout the whole period. It rose from 1.8% a year in 1975-1985 to 2.6% in 1985-1995 and fell back to 1.8% a year thereafter (Figure 4). In the US, productivity growth amounted to about 2.5% a year from 1977 to 1995 and rose substantially to 4.3% a year from 1995 to 2007. In Japan productivity growth was much higher in the first two decades analysed, compared to the EU-15 and the US; 4.8% a year from 1975 to 1985 and 6.3% a year from 1985 to 1995. Thereafter labour productivity fell to 2.2% a year. In the EU-10 high real growth rates in VA in wholesale and retail trade also led to strong productivity growth by almost 5% a year in 1995-2007; due to its small weight, growth of labour productivity was only slightly higher in the EU-25 (2.1% a year) than in the EU-15 in 1995-2007.

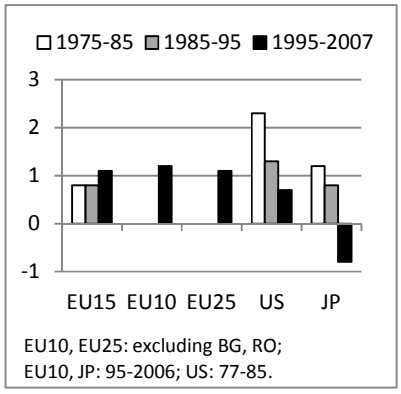
Employment and hours worked

Figure 5: Share in total employment



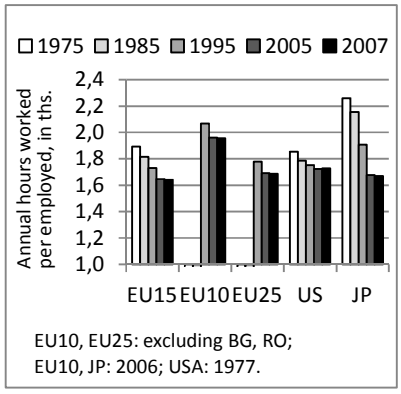
EU10, EU25: excluding BG, RO;
US: 1977; EU10, JP: 2006.

Figure 6: Employment, growth, annual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

Figure 7: Av. hours worked per employed



EU10, EU25: excluding BG, RO;
EU10, JP: 2006; USA: 1977.

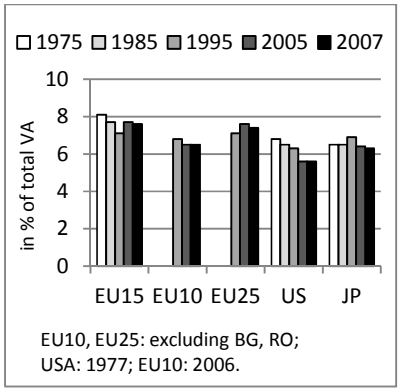
The share of wholesale and retail trade in total employment (Figure 5) also remained quite constant over the period, pointing to the fact that labour productivity growth in this sector was quite similar to the overall economy. In the EU-15, in 1975 wholesale and retail trade accounted for about 14% of total employment and rose only slightly to 15% in 2007. In the US, the share amounted to slightly more than 17% from 1975 to 1995 and fell somewhat to 16% in 2007. In Japan the development was quite similar, where from 1975 to 1995 the share in total employment amounted to about 18% and to 17% in 2007. In the EU-10 strong growth in value added also led the share of wholesale and retail trade rise from 13.6% in 1995 to 15.3% in 2007. Thus, in the EU-25 in the same period the share remained stable at 15% of total employment. Annual growth in employment remained stable in the EU-15 at 0.8% a year from 1975 to 1995 and 1.1% from 1995 to 2007 (Figure 6). In the US growth rates of employment were with 2.3% a year much higher from 1975 to 1985, but declined gradually to 0.7% from 1995 to 2007. In Japan growth in employment was with about 1% a year quite similar to the EU-15 from 1975-1995. Thereafter, however, employment declined by 0.8% a year in wholesale and retail trade. In the EU-10 annual growth in employment amounted to 1.2%. In the EU-15, average annual hours worked per person employed in wholesale and retail trade were quite similar compared to the US in 1975 but at the same time much lower than in Japan (Figure 7). In the following three decades, the average fell gradually from about 1890 hours to 1643. In the US, the reduction was somewhat smaller to around 1730 hours a year in 2007. In Japan in 1975 annual hours worked of not less than 2260 hours were recorded. The level fell substantially in the following three decades to about 1670 hours per year. Compared to the other regions covered, the level of hours worked in wholesale and retail trade is still somewhat higher in the EU-10, where it amounts to about 1960 a year.

Synthetic Fiche

Transportation and storage; Information and communication (NACE HJ)

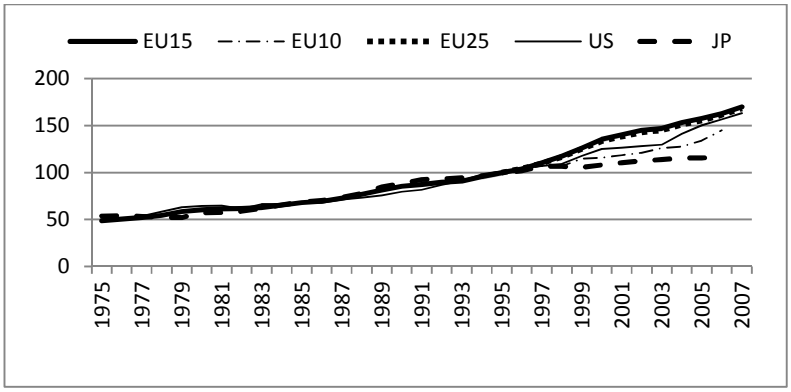
Value added

Figure 1: Share in total value added



EU10, EU25: excluding BG, RO;
USA: 1977; EU10: 2006.

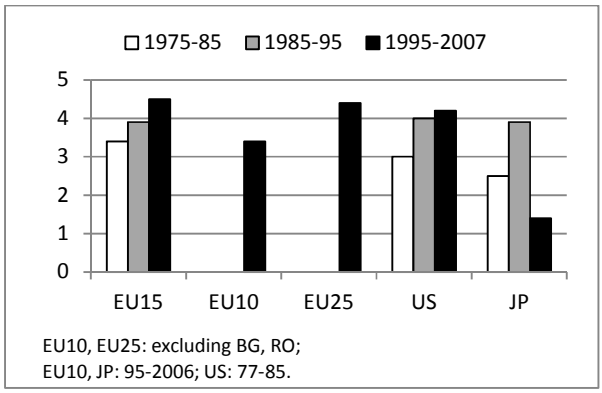
Figure 2: Value added, Index: 1995=100



In general, the share of transport, storage and communication (HJ) in total value added (VA) remained rather stable from 1975 to 2007 in the EU-15 and Japan, while it fell gradually in the US (Figure 1). In the EU-15 it amounted to 8.1% in 1975, declined slightly to 7.1% in 1995 and amounted to 7.6% in 2007. In the US the share was somewhat lower than in the EU-15 in 1977 at about 7% and declined to 5.6% in 2007. In Japan transport, storage and communication amounted to as much as 6.5% of total value added throughout the whole period analysed. In the EU-10 (i.e. the countries which entered the EU in 2004), the share of the sector in total VA also declined slightly from 1995 onwards and was in 2007 with 6.5% somewhat lower than in the EU-15. Real growth in value added of transport, storage and communication advanced rather similar from 1975 to 1995 in the EU-15, Japan and the US (Figure 2). From that time onwards, however, growth rates moderated substantially in Japan, while in the EU-15 and the US real growth of VA even accelerated compared to the previous two decades. In the EU-10 value added in transport, storage and communication rose with 3.4% a year somewhat slower compared to the EU-15 and the US.

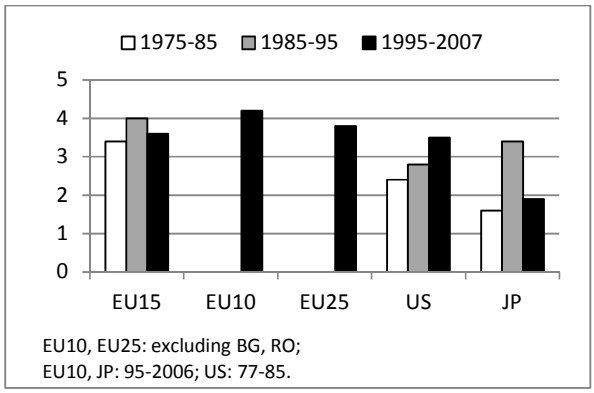
Productivity

Figure 3: Value added, growth in %, annual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

Figure 4: Productivity (VA/hours worked) growth in %, annual av.

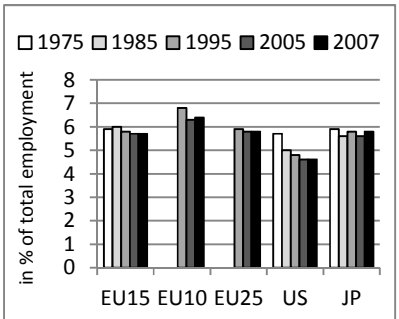


EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

In the EU-15, growth in labour productivity in transport, storage and communication (VA per hour worked) was above average compared to the total economy throughout the whole period 1995-2007. It amounted to about 3.7% a year on average (Figure 4). In the US, productivity growth was somewhat lower in 1977-1985 (2.4% a year) but rose gradually to much the same rate as the EU-15 in 1995-2007 (3.5% a year). In Japan, productivity growth was the lowest in the years 1975-1985 (1.6% a year) but jumped to 3.4% in 1985-1995. Thereafter, however, it fell back to 1.9% a year in 1995-2007. In the EU-10, labour productivity grew fastest in 1995-2007, by 4.2% a year.

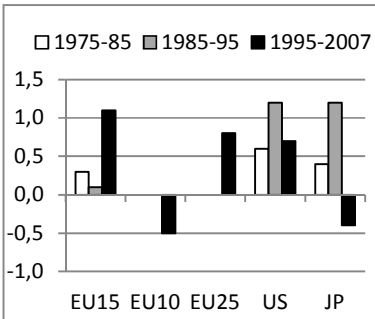
Employment and hours worked

Figure 5: Share in total employment



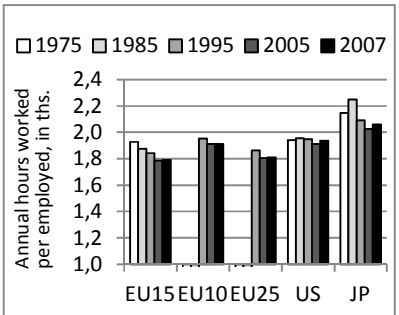
EU10, EU25: excluding BG, RO;
US: 1977; EU10, JP: 2006.

Figure 6: Employment, growth, annual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

Figure 7: Av. hours worked per employed



EU10, EU25: excluding BG, RO;
EU10, JP: 2006; USA: 1977.

The share of transport, storage and communication in total employment (Figure 5) also remained rather stable over the period in the EU-15 and Japan, while falling in the US. In the EU-15 and Japan, in 1975 the sector accounted for about 6% of total employment and declined slightly only in the EU-15, to 5.7% in 2007. In the US, the share gradually fell from 5.7% to 4.6% over the same period. In the EU-10, the share was somewhat higher in 1975 than in the other regions analysed and accounted for almost 7% of total employment. Until 2007 it declined to 6.4%. The number of employed in transport, storage and communication rose only slightly by 0.3% and 0.1% in the two decades following 1975 in the EU-15 (Figure 6). Thereafter high growth of more than 1% a year could be observed. In the US and Japan the swift rise in the number of employed already took place from 1975 to 1985 (both about 0.5% a year) and especially from 1985 to 1995 (1.2% a year in both countries). Thereafter annual growth fell back to 0.7% in the US, while the number of employed even declined in Japan from 1995 to 2006 by 0.4% a year. In the EU-10 employment in transport, storage and communication was reduced by 0.5% a year, which also lowered the growth rate in the EU-25 to 0.8% a year from 1995 to 2007 compared to the EU-15. In 1975 average annual hours worked per person employed in transport, storage and communication were comparably low both in the EU-15 and the US (Figure 7). While in the EU-15 they gradually declined from about 1930 hours a year to 1790 in 2007, in the US they remained constant over the same period. In Japan they accounted for to about 2150 hours a year and even rose in the following decade. Thereafter they declined to about 2060 hours a year in 2007. In the EU-10 they amounted to 1950 hours a year in 1995 and fell slightly to about 1910 hours in 2007.

Synthetic Fiche

Accommodation and food service activities (NACE I)

Value added

Figure 1: Share in total value added

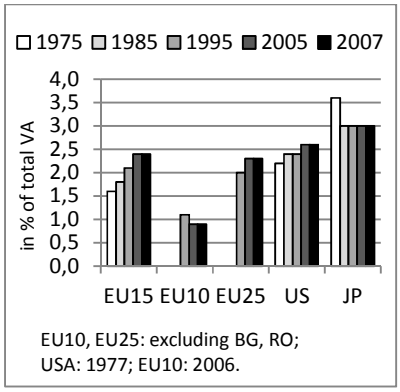
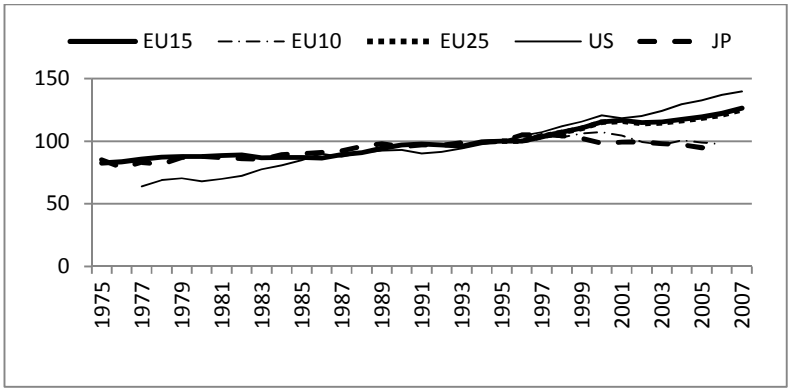


Figure 2: Value added, Index: 1995=100



The share of accommodation and food service activities (I) in total value added (VA) in the EU-15, US and Japan, for which data are available for 1975-2007, has risen gradually throughout the whole period (Figure 1). In the EU-15 it amounted to 1.5% in 1975 and increased to slightly less than 2.5% in 2007. In the US the share was slightly higher compared to the EU-15 in 1977 with 2.2% but increased less strongly to 2.7% in 2007. By contrast, in Japan this sectors' share was relatively stable at 3% over the last decades. In the EU-10 (i.e. the countries which entered the EU in 2004), the share declined and was at less than 1% in the last decade. Accordingly, in the EU-25, the share of accommodation and food service activities in total VA is at a comparable level to those of the EU-15. Real growth in VA tended to be strongest in the US, followed by EU-15 (Figure 2). Since 1995, VA growth in real terms was highest in the US and EU-25, but relatively stagnant in the EU-10 and Japan.

Productivity

Figure 3: Value added, growth in %, annual av.

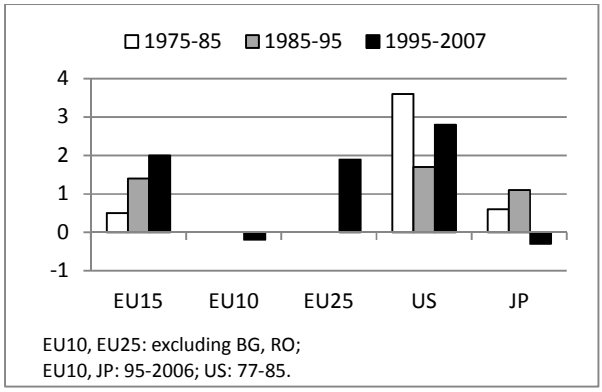
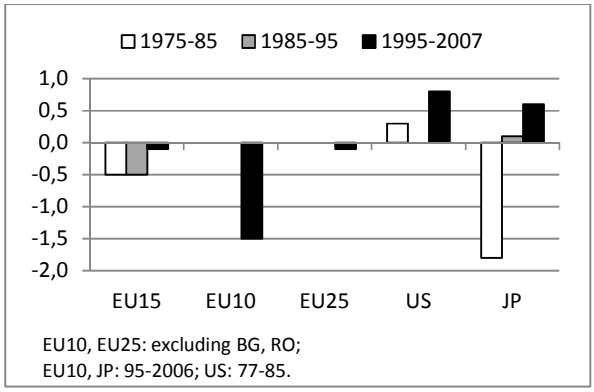


Figure 4: Productivity (VA/hours worked) growth in %, annual av.



In the EU-15, value added growth in accommodation and food service activities (VA per hour worked) was positive in all countries with the exception of the EU-10 and Japan in the last period considered (1995-2007). Growth was highest in the United States with average rates starting at more than 3% during 1975-1985, and slightly less than 3% in the period 1995-2007. In the EU-15 the growth rates steadily increased from 0.5% to about 2% in the last period under consideration. Finally, the growth rates of value added in Japan tended to be rather small compared to the other countries and became even negative in 1995-2007. Labour productivity growth rates were negative in the EU-15 and Japan in the period 1975-1985. In this period the growth rate of labour productivity in the US was also relatively slow with less than 0.5%. Growth rates however picked up in the latter periods. Particularly, the US and Japan experienced positive productivity growth rates in the period 1995-2007, whereas it still remained slightly negative in the EU-15.

Employment and hours worked

Figure 5: Share in total employment

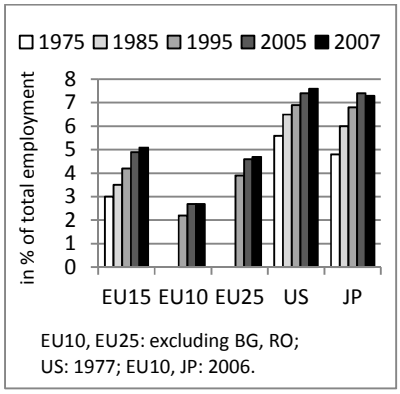


Figure 6: Employment, growth, annual av.

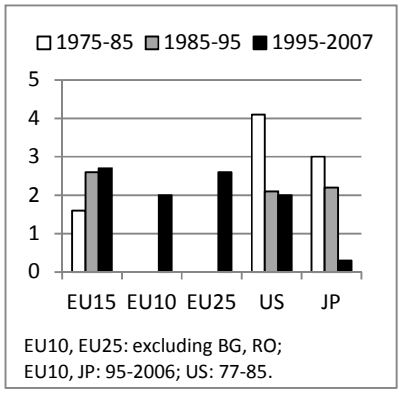
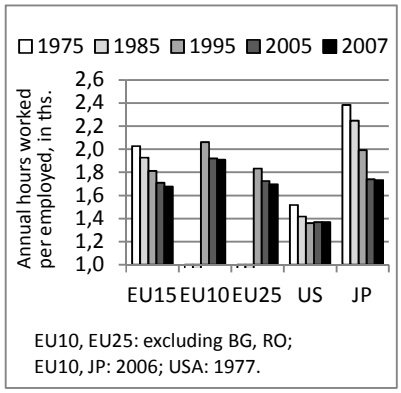


Figure 7: Av. hours worked per employed



The employment share of accommodation and food service activities in total employment (Figure 5) tended to increase in all three countries considered. In the EU-15, in 1975 accommodation and food service activities accounted for 3% of total employment and for about 5% in 2007. In the US, the share has risen from 5.5% to 7.5% over the same period, whereas in Japan, it increased from slightly less than 5% in 1975 to slightly less than 7% in 1995, from which on it was relatively stagnant. In the EU-10, the share was also increasing about 2% to slightly less than 3%, thus it is still quite below the EU-15 country average. The share in the EU-25 aggregate is again rather similar though slightly below to the share of the EU-15. In all countries thus the growth rate of employment in this sector was positive, increasing over time in the EU-15, but strongly decreasing in the US in the first period (1975-1985) and particularly in Japan for which over the period 1995-2007 the growth rate was only slightly above the 0% line. Employment growth of accommodation and food service activities in the other regions considered was between 2% and 3% over the period 1995-2007. Average hours worked per employed person declined in all countries, the strongest in Japan. The EU-10 group shows the highest level of average hours worked per employed person, whereas this number is the lowest in the US compared to the other countries.

Synthetic Fiche

Financial and insurance activities (NACE K)

Value added

Figure 1: Share in total value added

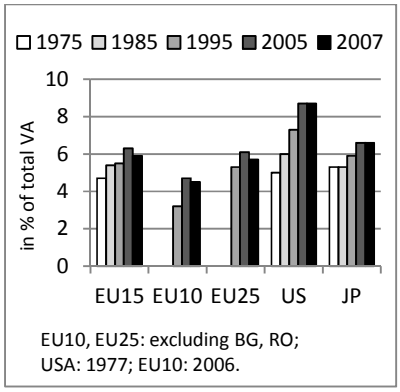
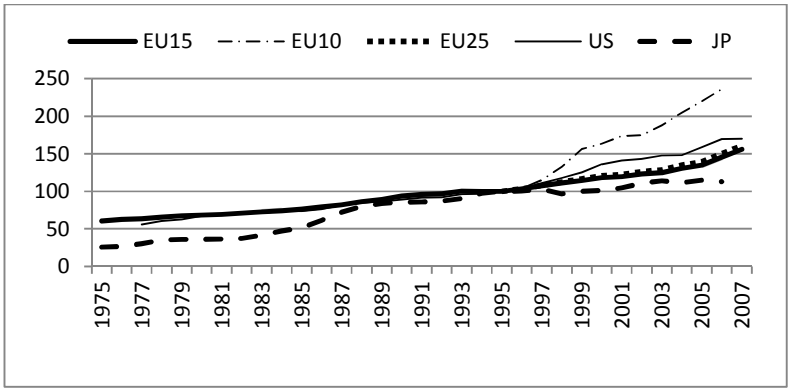


Figure 2: Value added, Index: 1995=100



Financial and insurance activities (NACE K) in 2007 reached a share of about 6% in the EU-15 which has only been slightly higher in Japan with 6.2%. The US reports the highest share in value added with almost 9%. These shares have been growing in all countries considered. In the EU-15 the shares of this sector went up from 4.5% in 1975 to the 6% already mentioned. In the US the share in 1975 was already somewhat higher compared to the EU-15 (5%) but increased even stronger to 9%. The increase in the share of Japan was in line with those of the EU-15 but started at a slightly higher level. In the EU-10 (i.e. the countries which entered the EU in 2004), the shares increased from about 3% in 1995 to 4.5% in 2007; thus the VA share of financial and insurance activities in these countries in total VA is still about 3.5% compared to the EU-15. Over the period 1975-1995 VA growth was strongest in Japan, but was relatively similar in the EU-15 and the US (see Figure 2). From 1995 onwards the highest growth rates have been reached by the EU-10 countries, followed by the US and then the EU-15. Growth rates in Japan have been quite low with a therefore only small increase in the index.

Productivity

Figure 3: Value added, growth in %, annual av.

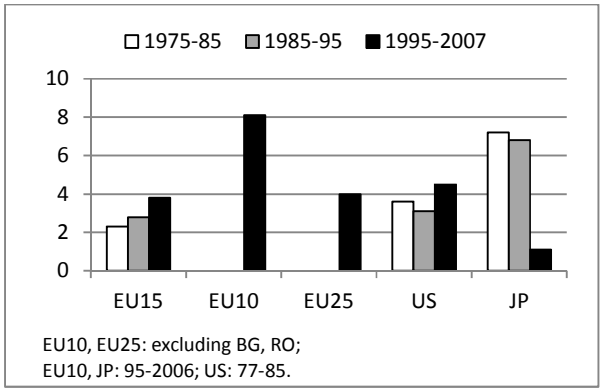
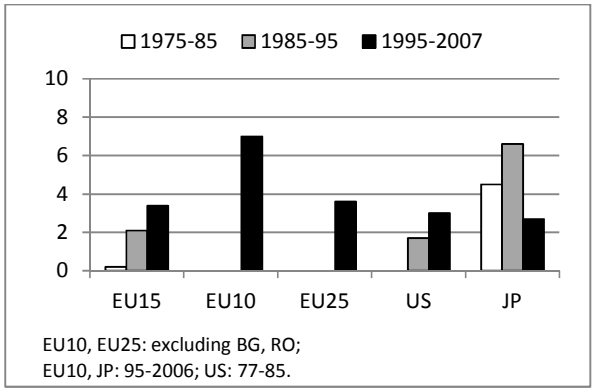


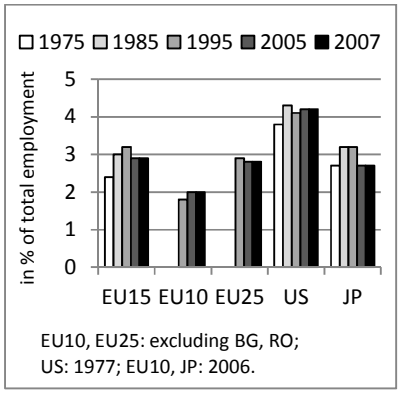
Figure 4: Productivity (VA/hours worked) growth in %, annual av.



Value added growth in all countries was positive and tended to increase in all countries. Particularly, in the EU-15 the growth of VA in financial and insurance activities increased from 2% (1975-1985) to almost 4% (1995-2007), i.e. almost the level of the US growth rate in this period with 4.5%. In the latter country, also a small though less significant increase of growth rates was observed. Only in Japan the growth rates declined strongly from about 7% in the periods 1975-1995 to about 1% in period 1995-2007. Similar tendencies can be seen when looking at labour productivity (VA/hours worked) which also increased for EU-15 from slightly above 0% to about 3.5% in the period 1995-2007. In this period, labour productivity in the US and Japan were growing at slightly lower rates. Japan experienced a severe decline in productivity growth rates as compared to the previous periods. Labour productivity growth rates have been particularly strong in the EU-10 countries where these reached about 7% on average over the period 1995-2007.

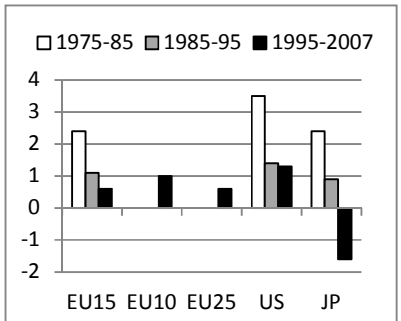
Employment and hours worked

Figure 5: Share in total employment



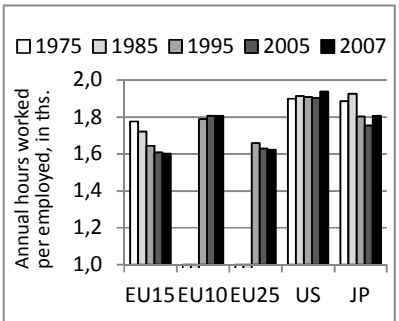
EU10, EU25: excluding BG, RO;
US: 1977; EU10, JP: 2006.

Figure 6: Employment, growth, annual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

Figure 7: Av. hours worked per employed



EU10, EU25: excluding BG, RO;
EU10, JP: 2006; USA: 1977.

The share of financial and insurance activities in total employment (Figure 5) increased over time in most countries. In the EU-15 the shares increased from 2.5% in 1975 to slightly above 3% in 1995, from which on it was relatively stable around 3%. The employment share in the US was generally higher, but also relatively stagnant at around 4% from 1985 onwards. In Japan the share is at a level of about 2.5%-3%, but was somewhat higher in the years 1985 and 1995. The employment share in the EU-10 countries is at about 2% after a small increase between 1995 and 2005. Employment growth rates have therefore been positive but generally relatively small in all countries (with the exception of Japan in the last decade) and furthermore tended to decrease over time. Growth rates over 1995-2007 have been at 0.5% in the EU-15 (declining from more than 2% over the period 1975-1985), and more than 1% for the US, which was also declining from higher levels. Only Japan experienced a negative employment growth rate in this sector over the last period. However, the growth rates before the last period have been in line with those in the other countries (about 2.5% and 1%, respectively). In the EU-15, average annual hours worked per person employed in financial and insurance activities were relatively lower and even declining in the EU-15 as compared to the US and Japan. In the latter two countries, average hours worked have been at a level of about 1900 and 1800 hours, respectively. Also the EU-10 countries' average hours worked (with about 1800) also tend to be higher as compared to the EU-15.

Synthetic Fiche

Real estate activities; Professional, scientific, technical activities; Administrative and support service activities (NACE LMN)

Value added

Figure 1: Share in total value added

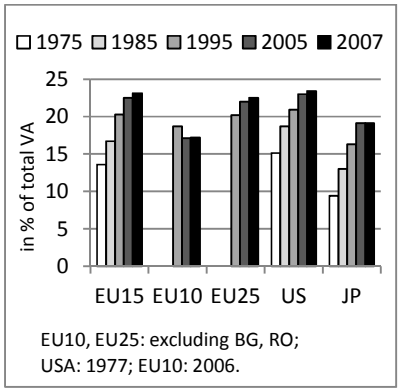
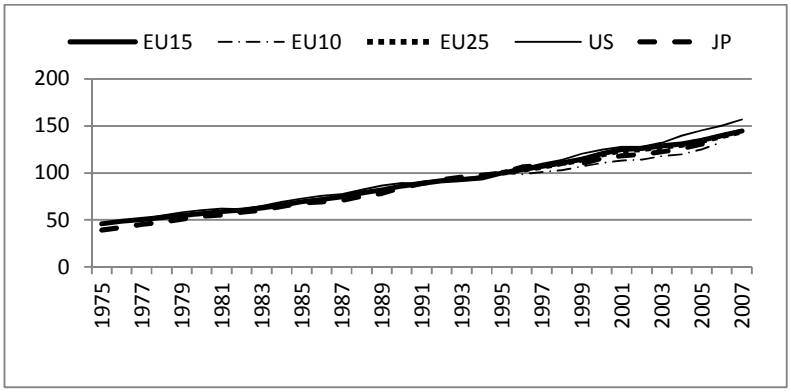


Figure 2: Value added, Index: 1995=100



The sector comprising business service activities is a relatively large sector with VA shares being up to 20% or higher in most countries considered. Furthermore, one can see a strong increase in these shares over the period covered. In the EU-15 the share has risen from about 13% in 1975 to about 23% in 2007, thus a doubling of its share. The increases of the shares in VA in the US (from 15% to 24%) and in Japan (from less than 10% to 19%) were comparably remarkable. In the EU-10 this share, however, is still significantly lower and stagnant at a level of about 17%. Real growth rates in VA in the countries considered have been relatively similar (Figure 2) which was particularly the case before 1995. From then on growth rates tended to be slightly diverging with the EU-15 and the US showing relatively better performance as compared to Japan and the EU-10 countries.

Productivity

Figure 3: Value added, growth in %, annual av.

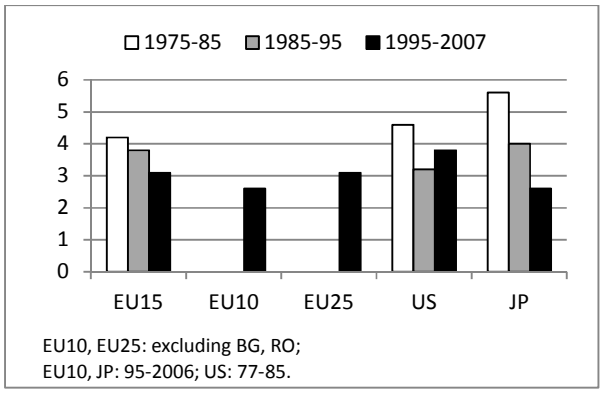
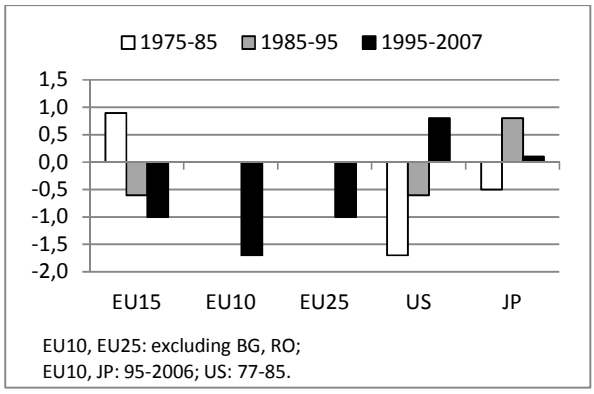


Figure 4: Productivity (VA/hours worked) growth in %, annual av.

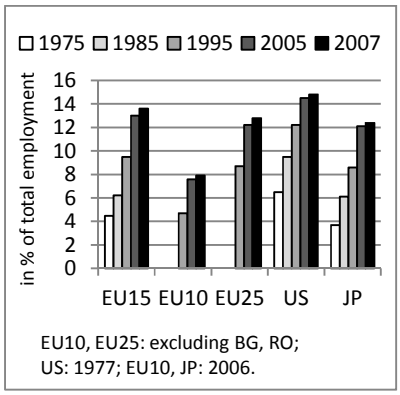


In the EU-15, growth in labour productivity in business activities (VA per hour worked) was positive over the period 1975-1985 but then became negative with -0.5% and -1% in the period 1985-1995 and 1995-2007, respectively. An opposite trend can be observed for the US and Japan. In the US the productivity

growth rate increased from -1.6% (1975-1985) to -0.5% (1985-1995) to a positive rate of 0.8% in the last years (1995-2007). Similarly, the growth rate in Japan increased from -0.5% in the first period to 0.8% in the second period; in the last period 1995-2007 the growth rate was, however, with 0.1% only slightly above the zero line. With -1.5% the EU-10 countries also experienced quite significant negative productivity growth rates.

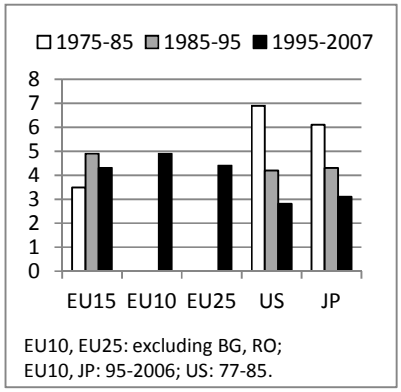
Employment and hours worked

Figure 5: Share in total employment



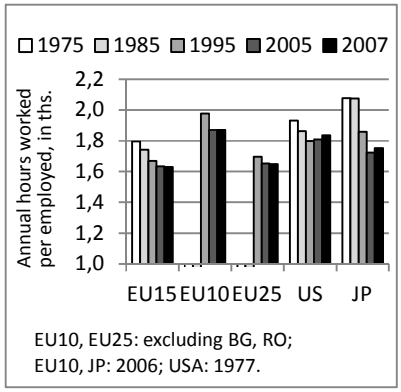
EU10, EU25: excluding BG, RO;
US: 1977; EU10, JP: 2006.

Figure 6: Employment, growth, annual av.



EU10, EU25: excluding BG, RO;
EU10, JP: 95-2006; US: 77-85.

Figure 7: Av. hours worked per employed



EU10, EU25: excluding BG, RO;
EU10, JP: 2006; USA: 1977.

Similarly strong increases can be observed when considering employment shares (Figure 5). This has risen from about 4% in 1975 to about 14% in 2007 in the EU-15. In the US the employment shares have been increasing from 6% to almost 15% and in Japan from 4% to 12%. Shares have also been increasing in the EU-10 countries where these have been 4% in 1995 and doubled to about 8% in 2007. Accordingly, employment growth rates have been positive and quite high in all countries. In the EU-15 these were 3.5%, 5% and 4.2% in the three periods considered. The EU-10 countries reached a growth rate of employment of 5% percent in the period 1995-2007. In the US and Japan the growth rates at the beginning of the period considered have been even higher with 7% and 6% in 1975-1985 and 4% in 1985-1995, respectively. For both countries the rates, however, declined to only about 3% in the period 1995-2007 (Figure 6). Average hours worked tended to decline in all countries. For the EU-15 the decline was from about 1800 hours to 1600 hours. In the US the average hours worked amount to about 1800 hours with a decline from almost 2000 hours in 1975. Working hours declined even more in Japan, from over 2200 hours worked per employed person in 1975 to 1750 hours now.

Sector Fiche

Manufacture of textiles, apparel, leather and related products (NACE CB)

Value Added

In industry manufacture of textiles, apparel, leather and related products the sector shares of value added in total value added range from almost 4% to almost 0. The share in the EU25 now is at less than one percent. The larger shares are predominantly found in emerging countries within Europe like Macedonia, Bulgaria, and Romania. But also Portugal and Italy still show high shares of 2.5 and 2% respectively. It is striking that these shares have been falling quite extensively over the period considered, i.e. 1995-2007, in most countries by 1-2 percentage points. The obvious reason for this is probably the ending of the multi-fibre agreement and the therefore strong competition from other producers like China. This is also reflected when looking at growth rates of value added which has been negative for a quite large range of countries. Positive growth rates can only be found for some Eastern European countries.

Figure 1: Share in total value added, 1995, 2007

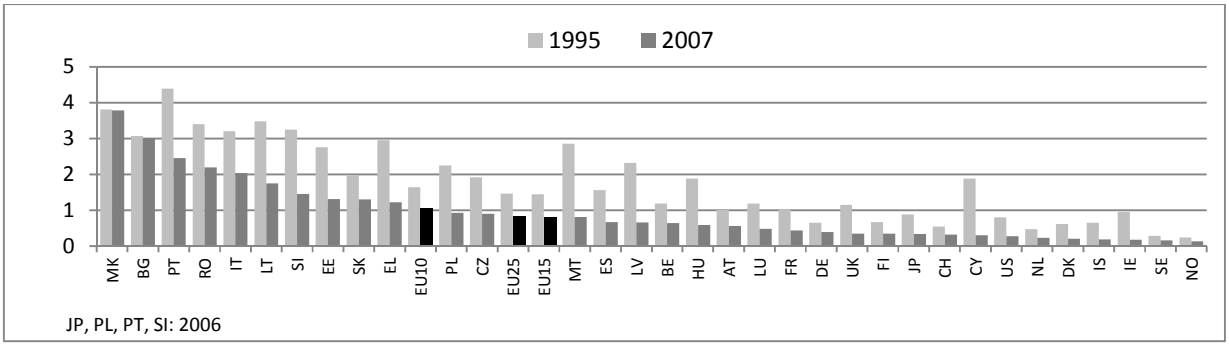


Figure 2: Value added, real growth rates, annual average 1995-2007

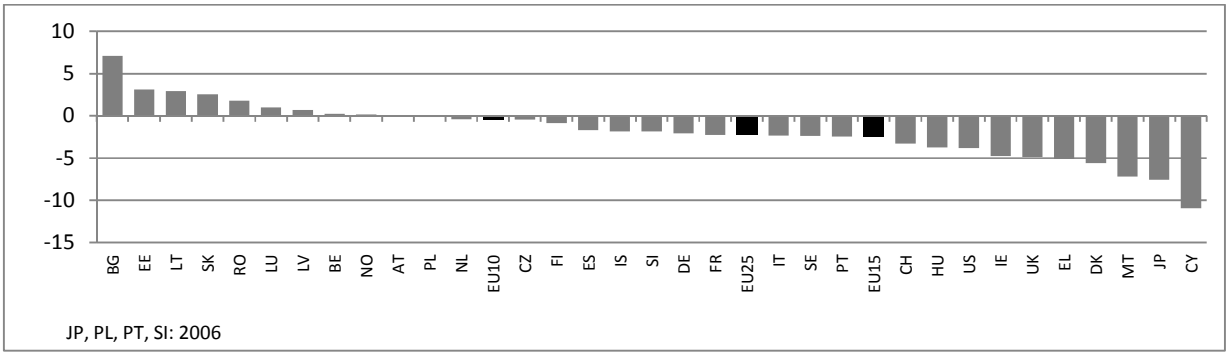
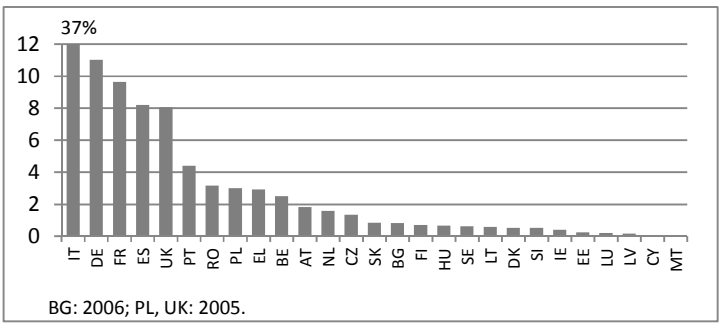


Figure 3: Value added, share of EU countries in EU27, 2007

Within Europe Italy accounts for the largest share of value added with more than 35% in 2007 which is then followed by the other larger economies like Germany, France, Spain and UK. These latter countries have however a share of about 10% or less only. Portugal also manages to hold a share of about 5% whereas for all other countries these are less.



Productivity

The more developed countries show productivity levels above the EU15 benchmark which have also been increasing over time. Most of the countries showing large shares in value added in this industry however show below average productivity levels with in some cases only a sluggish catching-up process. This is also seen when looking at productivity growth rates (Figure 5). These rates do not tend to be significantly higher in those countries with lower productivity levels but are relatively similar against each other. This might also reflect a clear division of labour within Europe within this industry, i.e. an upgrading of production stages in the Western European countries and less sophisticated production stages being outsourced to Eastern European countries.

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

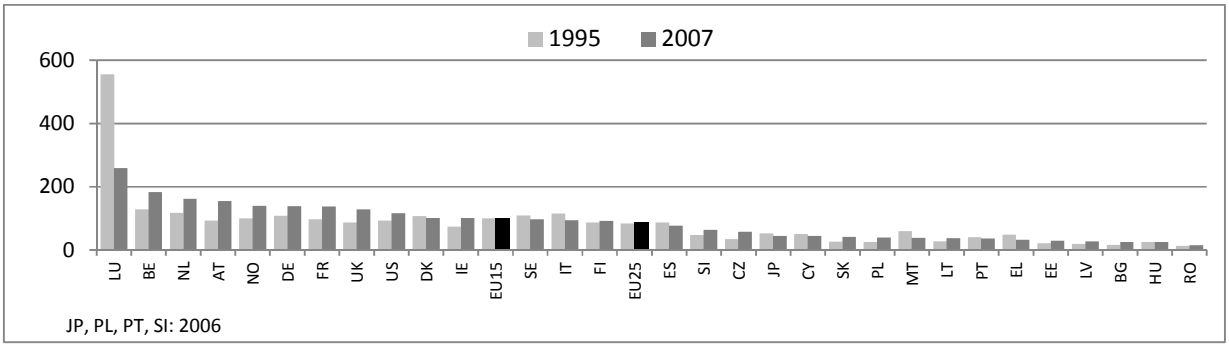
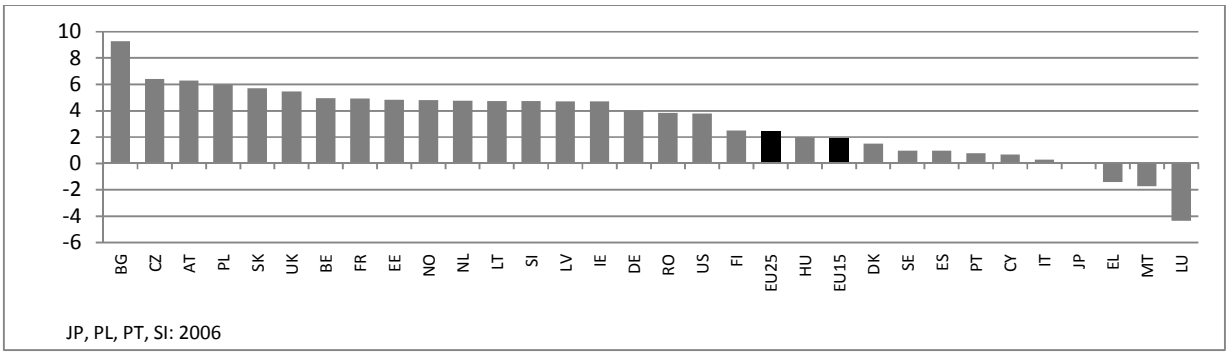


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

Similar to value added shares the Eastern European countries show the highest employment shares with up to 10% in case of Macedonia. In the other countries which are above average the shares range from almost 6% in Bulgaria to about 3% in Slovenia, still above the average of about 2%. It is interesting to note that in a number of countries these shares have been decreasing mostly due to the declining shares of value added which had a more significant effect than the sluggish productivity performance. Employment growth rates have therefore been negative in almost all countries with the exceptions of Bulgaria, Macedonia and maybe Romania. Employment losses in this sector have been in some cases quite significant with rates going down to -12%.

Figure 6: Share in total employment, 1995, 2007

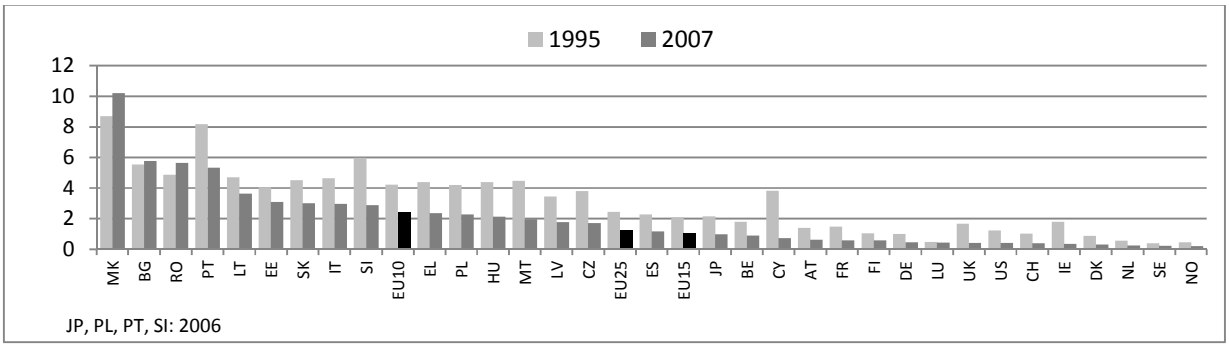


Figure 7: Employment, growth rates, annual average 1995-2007

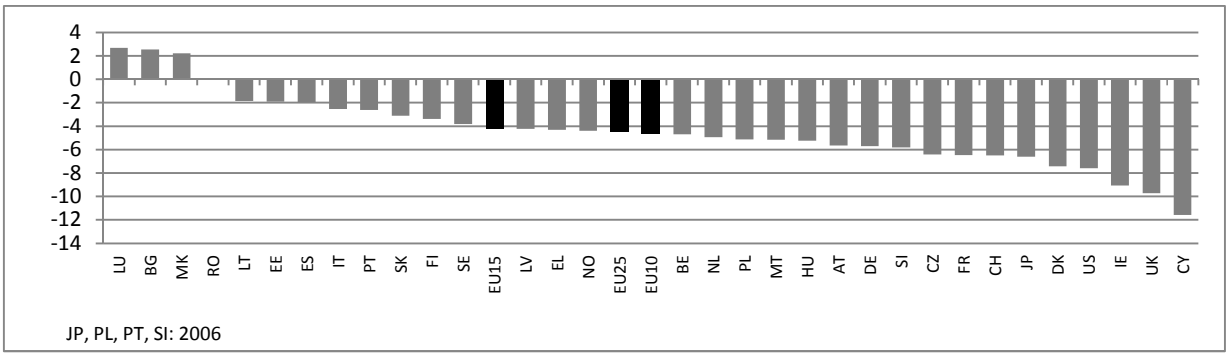
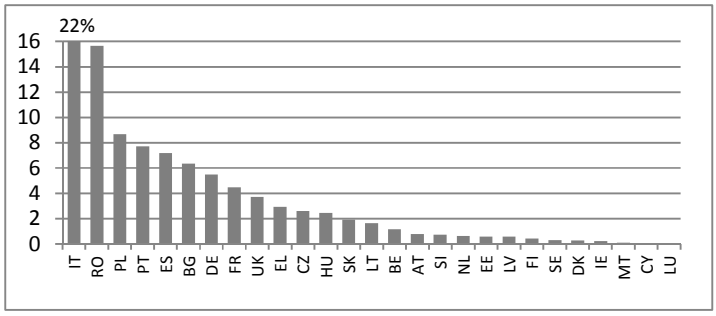


Figure 8: Employment, share of EU countries in EU27, 2007

As for value added Italy captures the largest part of employment in this sector within Europe with about 22%. This is however followed by a number of Eastern European economies which show high employment shares due to relative high shares in value added combined with less than average productivity. Other larger European economies capture only about 5% or less (e.g. Germany, France and UK).



Skill formation and ICT capital

The shares of medium educated workers in this sectors range from about 80% in case of Slovak Republic, Czech Republic and Poland to less than 20% in Turkey, Spain, Malta and Portugal. For most countries, these shares have been increasing over the period considered. The same is also true when considering the share of high educated workers for which these changes seems to be even more pronounced. These shares for high educated workers range from about 20% to less than 5%, again pointing towards large country differences. However, these shares might also reflect cross-country differences in overall labour supply by educational attainment categories.

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

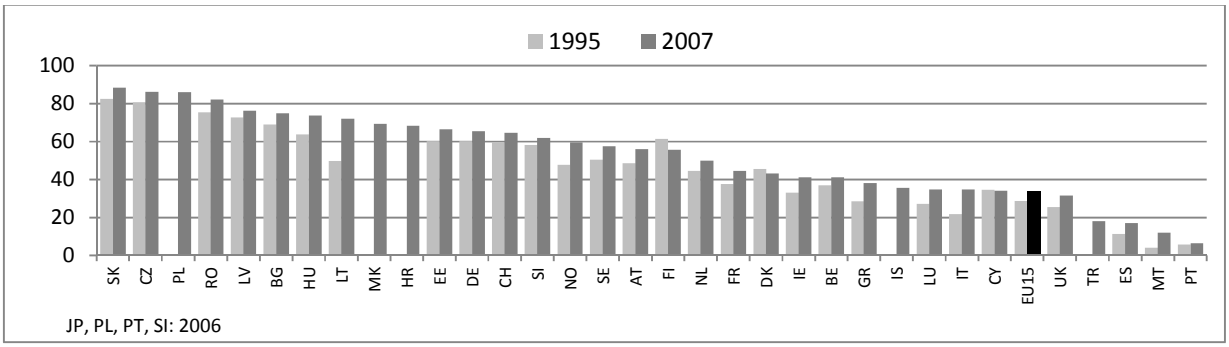


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

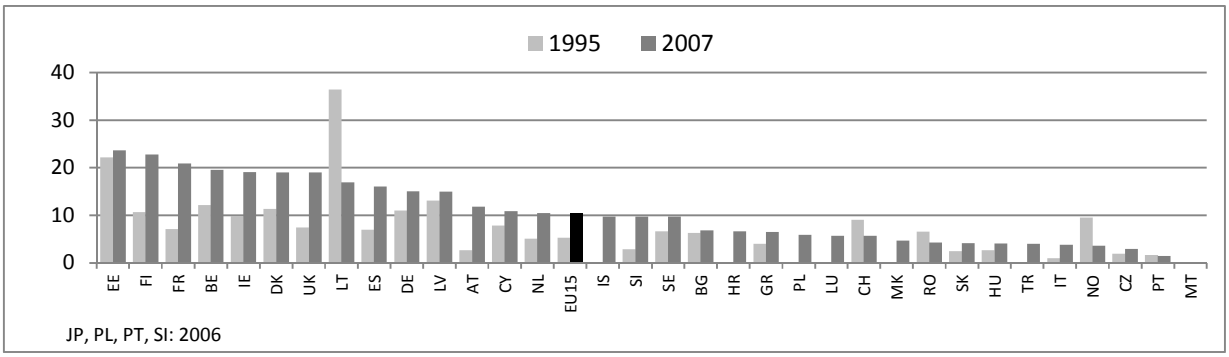
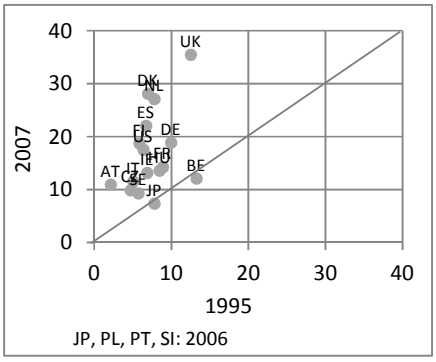


Figure 11: ICT capital stock, share in total capital stock in sector, in %

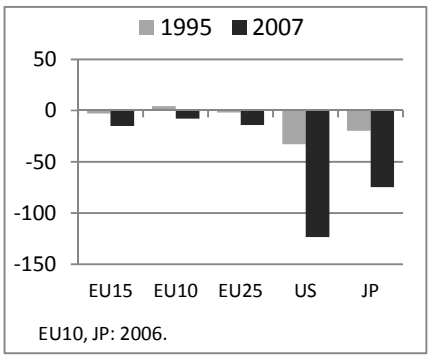
Figure 11 presents the share of ICT capital in total capital. These shares range from about 10% to almost 40% as in the case of UK. Almost all countries managed to increase the ICT capital shares since 1995 with the exception of Belgium and Japan, which shows quite low shares anyway (this might reflect more a methodological problem). Compared to 1995 there seems to be also more differentiation across countries as the range of these shares increased.



Trade and international integration

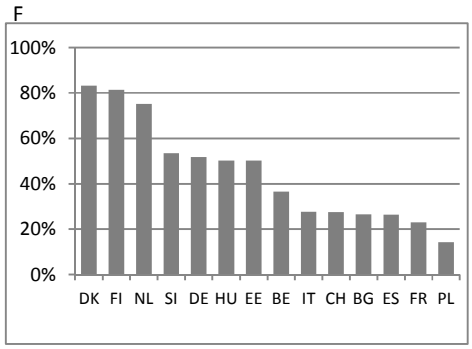
Figure 12: Net trade, in % of gross output in sector

Figure 12 reveals that all country groups became net importer of textiles, apparel and leather products which – as already mentioned – might be an effect of the ending of the multi-fibre agreement. Deficits in the European country groups are however much less extensive as e.g. in the US or also Japan.



The shares of foreign affiliates in employment or value added is less high as compared to other sectors, though the shares can go up to about 40% in some cases.

Large companies



Concentration rates: Share of 5 largest firms in total employment, in %

Figure 13 presents the employment shares of the five largest firms in total employment for countries. In Denmark and Finland the five largest companies account for more than 80% of total employment and only slightly less in the Netherlands. For some countries the share is about 50% (Slovenia, Germany, Hungary and Estonia). Six countries report shares between 20 and 40%, while Poland is the only country where the five largest firms comprise a share in total employment of less than 20%.

Restructuring of large companies

The textiles and clothing sector has been affected only slightly more than average by restructuring over the past 8-9 years, most of the restructuring in the EU15 at least occurring in the years before this, when the major companies in the industry either relocated production or outsourced it . According to the European Restructuring Monitor, job losses amounting to some 90,000 people occurred because of restructuring by large enterprises between 2003 and the first three months of 2011. This amounts to an estimate of just under 2% of total employment in the enterprises concerned in the industry each year. The job losses were relatively concentrated in the EU12, where the reduction in employment as result of large company restructuring amounted to an average of 3% a year, rising to 4% a year over the two years 2009 and 2010. Much of the restructuring (accounting for around 45% % of the jobs lost) has taken the form of company bankruptcy closure, while off-shoring – the relocation of activities to other countries, invariably to low wage economies, especially to China, India and other South-East Asian countries, or from EU15 countries to the EU12) has been responsible for around 10-11% of the total job losses.

Sector Fiche

Manufacture of chemicals and chemical products (NACE CE)

Value Added

Manufacture of chemicals and chemical products account for about 2% of value added in EU27 which has been only slightly declining since 1995. Higher shares show up in advanced countries like Finland, Switzerland, Japan and Germany where this sector accounts for about 4% of value added. In other countries like Hungary, Czech Republic and Slovak Republic the share increased quite significantly from 1995 on. In the other countries with below average shares, these decreased in most cases by 0.5 and 1 percentage point. However, in all countries (with the exception of Iceland) real value added growth in this sector was positive and partly quite high. On average growth was at 6% for EU27 with higher growth rates in the EU10 countries.

Figure 1: Share in total value added, 1995, 2007

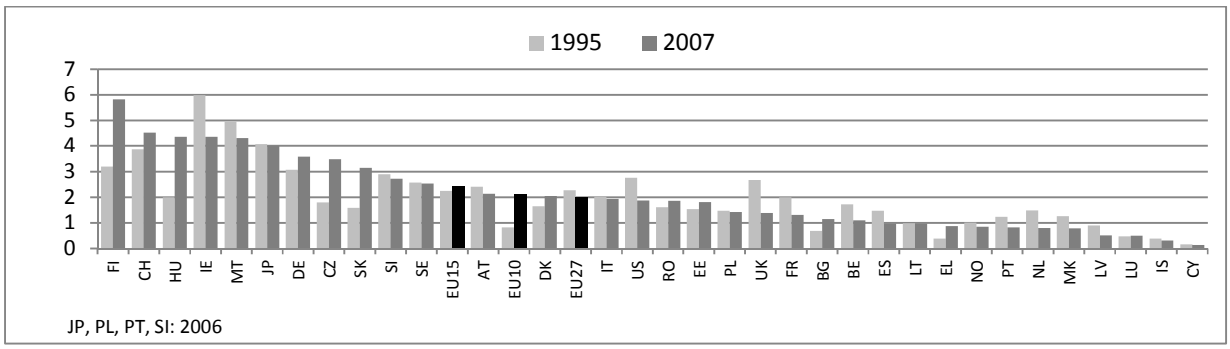


Figure 2: Value added, real growth rates, annual average 1995-2007

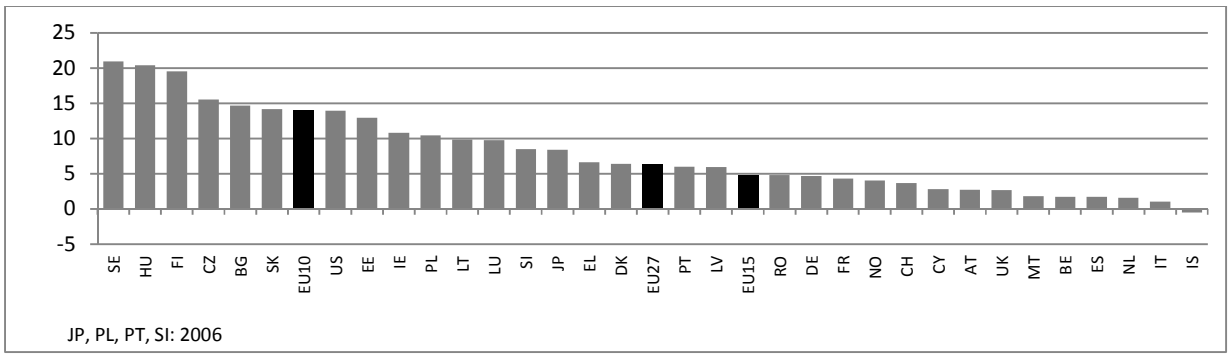
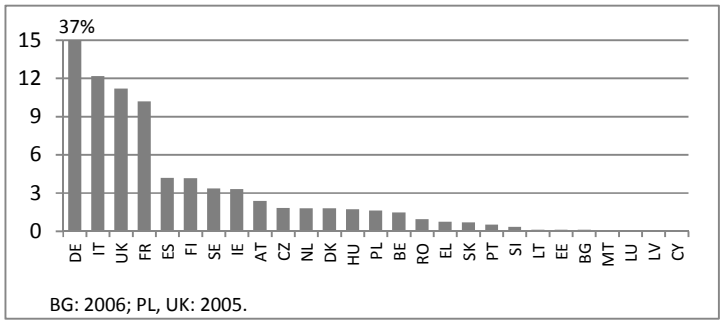


Figure 3: Value added, share of EU countries in EU27, 2007

Within Europe Germany holds the lions share with about 27%. This is followed by Italy, UK and France with shares of about 10%. All other countries captures 5% or less. Thus almost 60% of value addded in EU27 are produced by four countries.



Productivity

Regarding productivity levels, a few countries perform much better as compared to EU15 in 2007, these are Finland, Sweden and Ireland together with the US and Japan. Germany was close to EU15. The first three countries have been characterized by a strong increase in productivity from partly low levels. On the other side of the spectrum some countries were falling back (when compared to EU15), particularly so Austria, Norway, Netherlands, Spain, Italy and Malta. Most of the Eastern European countries are below the 50% level though having been able to catch-up to some extent which is also documented by the high productivity growth rates shown in Figure 5.

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

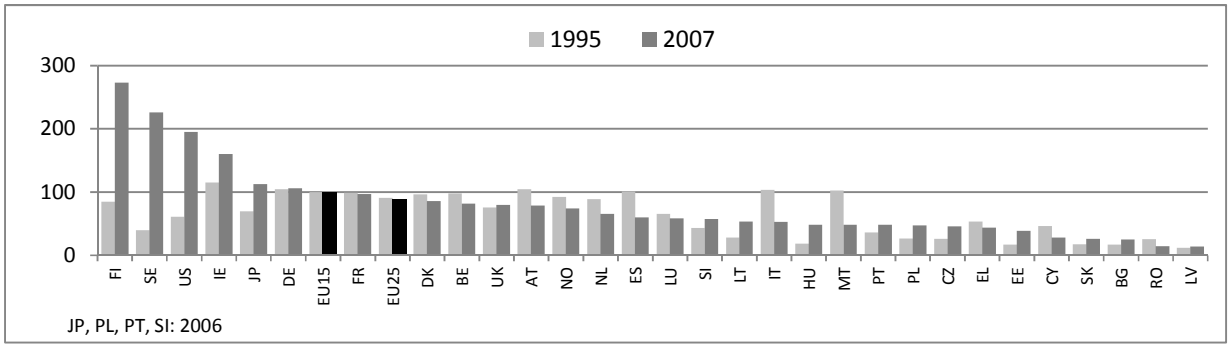
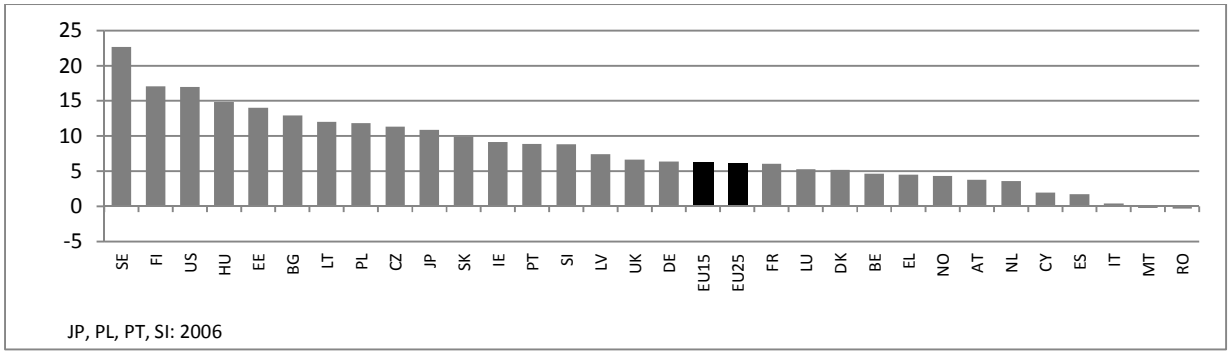


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

Figure 6 presents the employment shares of this sector in total employment. For the EU15 this was at 1.5% and somewhat higher for EU10 with about 2.5% in 2007. Accordingly, the EU10 countries show higher shares with up to about 4% in Hungary, Czech Republic and Slovak Republic. Employment shares are also higher in Switzerland (3.5%), Ireland (3%), Finland (2.5%) and Germany (2.5%). In contrast however, these shares were increasing in the three countries mentioned before (Hungary, Czech Republic and Slovak Republic), whereas has been decreasing in most of the other countries. The shares in Japan declined from 3.5% in 1995 to 2.8% in 2007 and in the US from 2% to 1.7%. Employment has been growing positively Romania with 9%, and Hungary, Czech Republic and Slovak Republic and Luxembourg with about 4%. The average for EU10 was at about 2% particularly as Poland experienced a negative growth rate. The growth rate for the EU15 was -1% implying that employment declined in most of these countries as it did in the US (-2%) and Japan (-2%).

Figure 6: Share in total employment, 1995, 2007

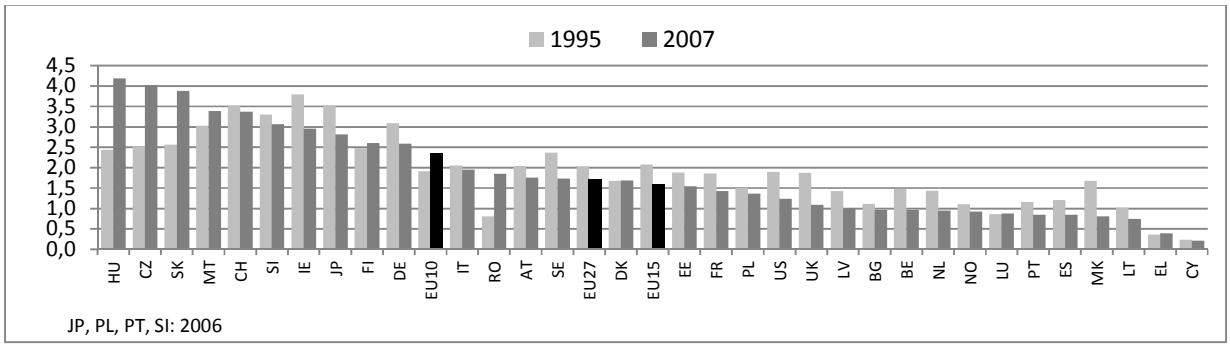


Figure 7: Employment, growth rates, annual average 1995-2007

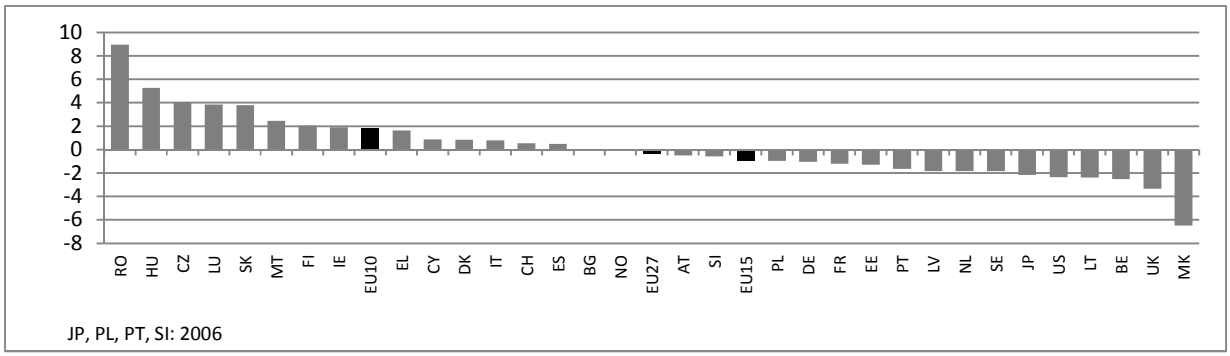
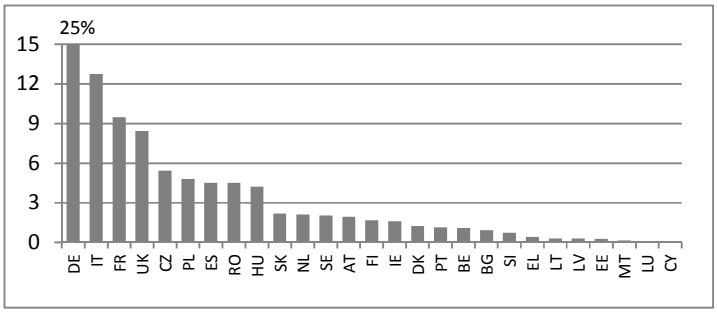


Figure 8: Employment, share of EU countries in EU27, 2007

Again the larger countries get the highest shares across Europe though there is some more differentiation as compared to other sectors. Germany holds a share of 25%, Italy of 13%, France of 9% and UK of 8%. This ranking is followed by a series of Eastern European countries with a share of 4-5% (Czech Republic, Poland, Romania and Hungary) together with Spain. All other countries capture shares of less than 3%.



Skill formation and ICT capital

The shares of medium educated workers in employment in these sectors is at about 50% for EU15 with some countries showing higher shares between 60 and 80%, mostly in Eastern European countries which are themselves characterised by a high share of medium educated in labour supply. In some countries however, these shares are quite low with only about 20%. There is no common trend with respect to changes as these shares have been increasing in the majority of countries but also in some countries these decreased. With respect to high-educated the share in the EU15 is at about 35% with some advanced countries getting shares of up to 50% or at least more than 40%. The countries showing higher shares in 2007 are characterised by quite strong increases of these over the period considered. But shares of high educated increased in most of the other countries as well.

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

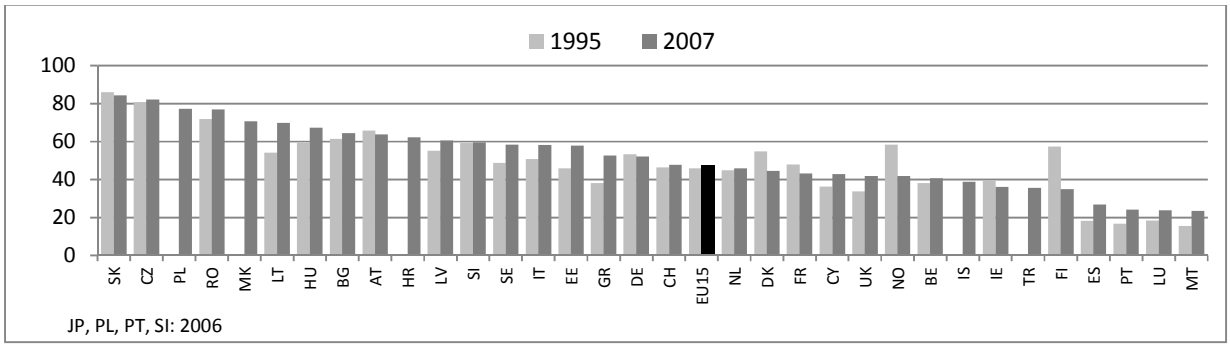


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

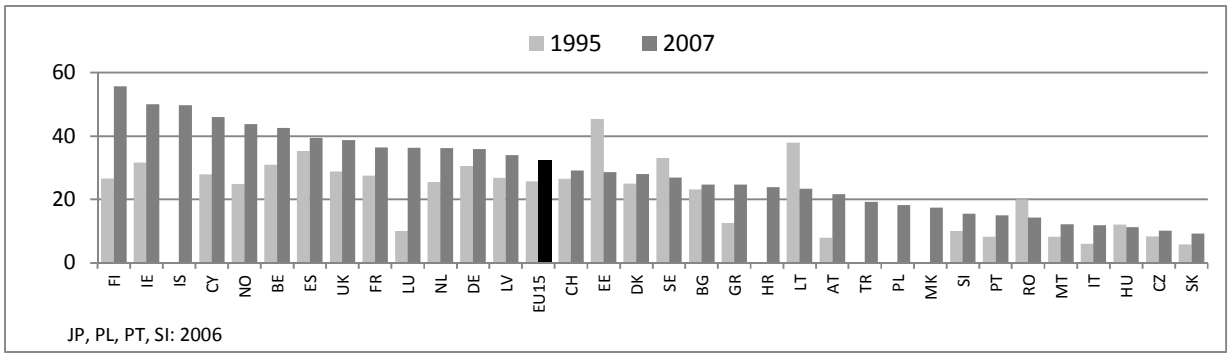
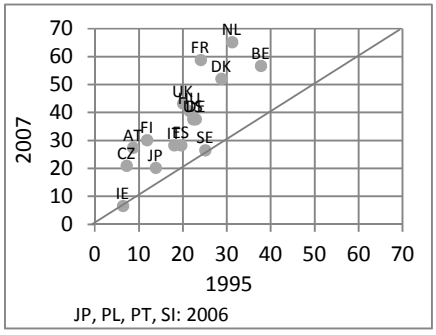


Figure 11: ICT capital stock, share in total capital stock in sector, in %

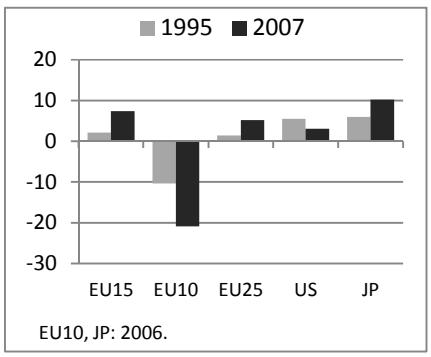
There is a wide range of ICT shares across the countries ranging from about 10% to more than 70%. There is however a clear upward trend in these shares as in all countries these are higher in 2007 as compared to 1995 with maybe exceptions being Ireland and Sweden. Particularly high shares are reported in Netherlands, Denmark, France and Belgium.



Trade

Figure 12: Net trade, in % of gross output in sector

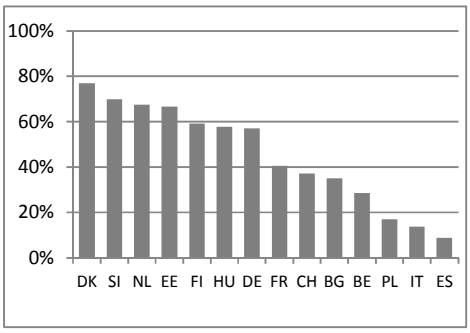
Figure 12 reveals that Japan, the EU15 and EU25 as country groups became stronger net exporters of chemicals and chemical products. Within the EU however the Central and Eastern European Member States (EU10) became a much stronger net importer in the period 1995 to 2007, while the net export position of the US declined. The shares of foreign affiliates in employment or value added are rather low in Japan with less than 5%. These are much higher in the European countries which report shares above 20% up to 70%.



Large companies

Figure 13: Concentration rates: Share of 5 largest firms in total employment, in %

Figure 13 presents the employment shares of the five largest firms in total employment for countries. In Denmark and Slovenia the five largest companies account for more than 70% of total employment, while in the Netherlands, Estonia, Finland, Hungary and Germany their share in total employment is about 50% or above. Four countries report shares between 30 and 40% (France, Switzerland, Bulgaria and Belgium), while in Poland, Italy and Spain the five largest firms comprise a share in total employment of less than 20%.



Restructuring of large companies

The chemical industry has been subject to extensive restructuring over the past 10 years. Since 2003, jobs losses from the restructuring of large companies in the industry are estimated to have amounted to around 280,000, equivalent to 5% of employment in these companies a year. The scale of job losses was even larger in the two years 2008-2009 when they amounted to 6% of employment. Restructuring has been concentrated in the EU15 countries and has been on a relatively small scale in the EU12. In the EU15, job losses from restructuring have amounted to the equivalent of 7-8% a year of total employment in the companies concerned. Restructuring in large enterprises has taken the form mainly of internal reorganisation, though mergers or acquisitions have accounted for around 15% of total job losses from restructuring since 2003. Off-shoring has been only on a small scale, accounting for only around 3% of job losses from restructuring.

Sector Fiche

Manufacture of rubber & plastics products; oth. non-metallic mineral prod. (NACE CG)

Value Added

Value added shares of the rubber and plastics and other non-metallic mineral product industry are rather uniform across countries ranging from about 2.5% to slightly less than 1% with the share for EU25 being at slightly less than 2%. Only the Czech Republic shows a significantly higher share in 2007 with almost 4%. Larger changes in shares can be seen for the Czech Republic, Estonia, Lithuania, and Bulgaria and for the EU10 in general. Shares have been slightly declining in the more advanced countries with stronger declines being observed in Ireland and the UK and Luxembourg. Real growth of value added however has been positive in all countries. Particularly strong growth is observed in the EU10 countries (Bulgaria, Latvia, Poland and Lithuania). Growth rates in the non-European countries have been the lowest.

Figure 1: Share in total value added, 1995, 2007

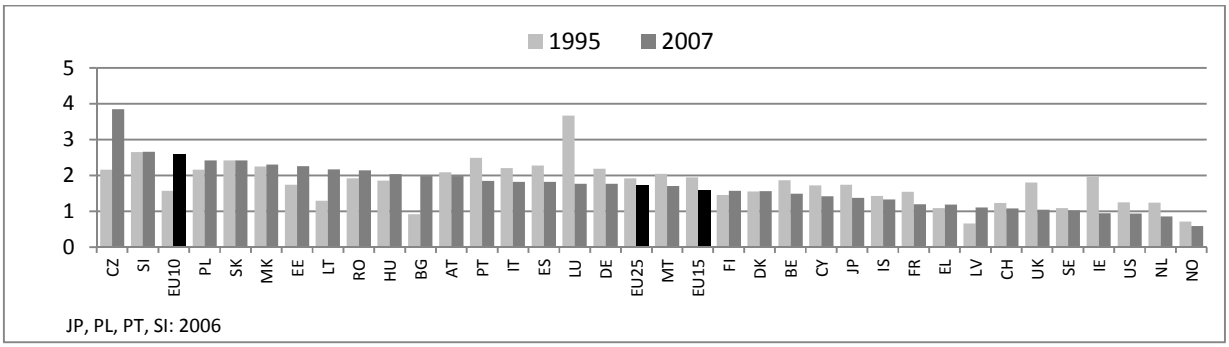


Figure 2: Value added, real growth rates, annual average 1995-2007

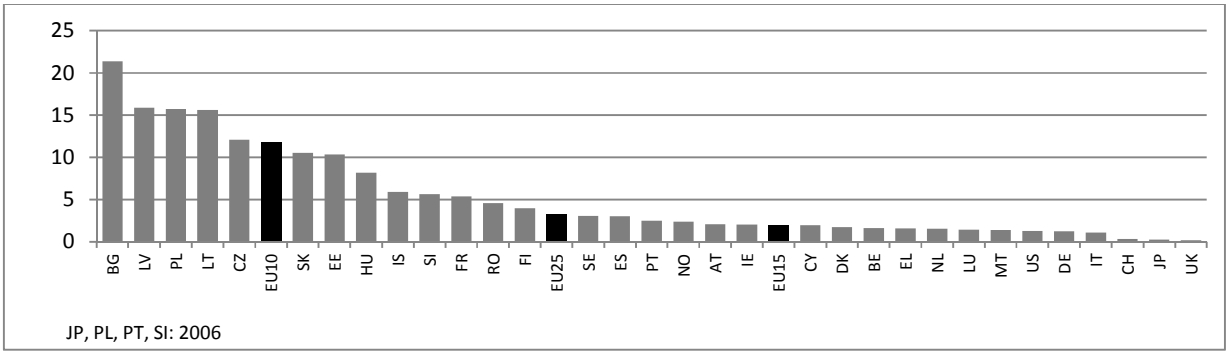
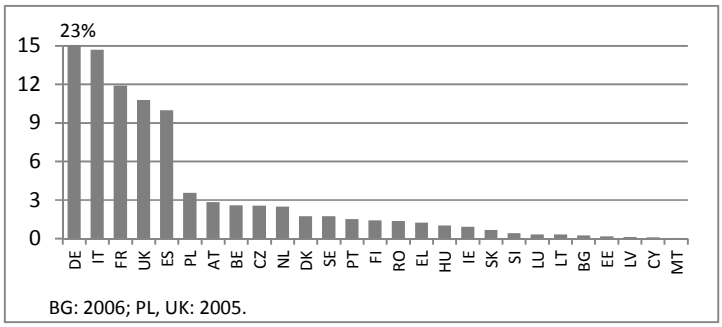


Figure 3: Value added, share of EU countries in EU27, 2007

Larger countries capture also larger value added shares in EU27 total. Germany in 2007 produced 23% of the value added in the EU, this is followed by Italy (15%), France (12%), UK (11%) and Spain (10%). All other countries get shares of less than 5%. Thus about 70% of value added in EU27 is produced by 5 economies.



Productivity

Productivity levels are relatively evenly spread across the more advanced countries (i.e. EU15) with Belgium, Luxembourg and France performing above average whereas Italy and UK performs below average. There is a larger differentiation amongst the Eastern European countries where productivity levels in relative to EU15 range from about 75% (Czech Republic, Slovenia but also Ireland) to less than 50% (Bulgaria, Romania and Estonia). However this set of countries succeeded in catching-up over the period. This means, in terms of productivity growth rates the countries with lower levels performed better (see Figure 5). Particularly strong productivity growth rates are seen for Bulgaria and Poland with rates above 15%, but also Lithuania, Latvia, Romania, Slovak Republic and Czech Republic with rates of about 10%. The more advanced countries tend to show similar growth rates around the EU15 level of 3.5%.

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

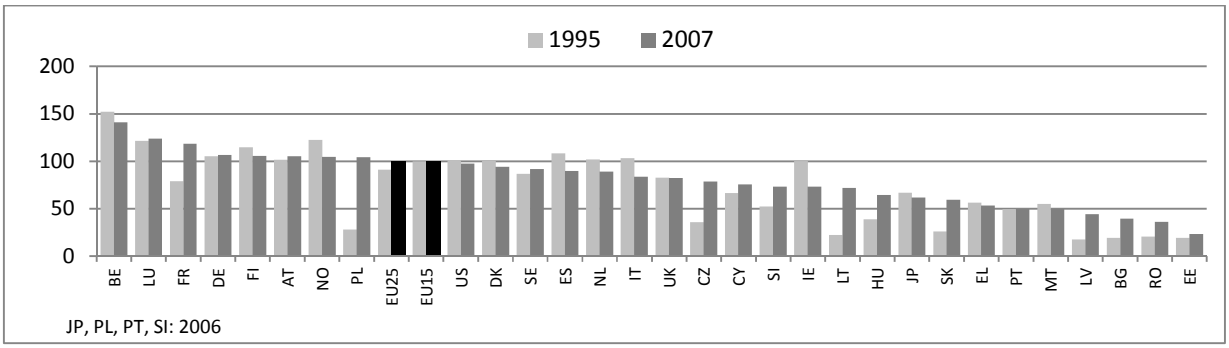
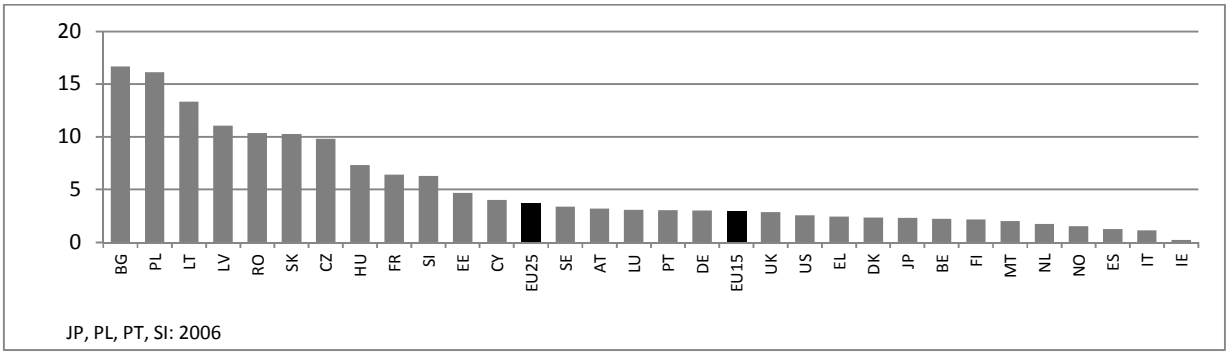


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

Figure 6 presents the employment shares of this sector in each country. For the EU25 the share is at 1.5%. These shares tend to be higher in the Eastern European countries. The EU10 share is at 2.2% and employment shares in Estonia and Czech Republic being above 3%. Employment shares in most countries were declining over the period considered with the exceptions being Estonia and Czech Republic. Employment growth in this sector has been positive mostly in the EU10 countries with rates going up to 5% (Estonia) and Bulgaria and Latvia with 4%. Positive growth rates for the more advanced countries can be seen for Spain, Finland and Norway. The other countries experience negative employment growth rates in this sector with particularly stronger declines in Cyprus, UK and Macedonia.

Figure 6: Share in total employment, 1995, 2007

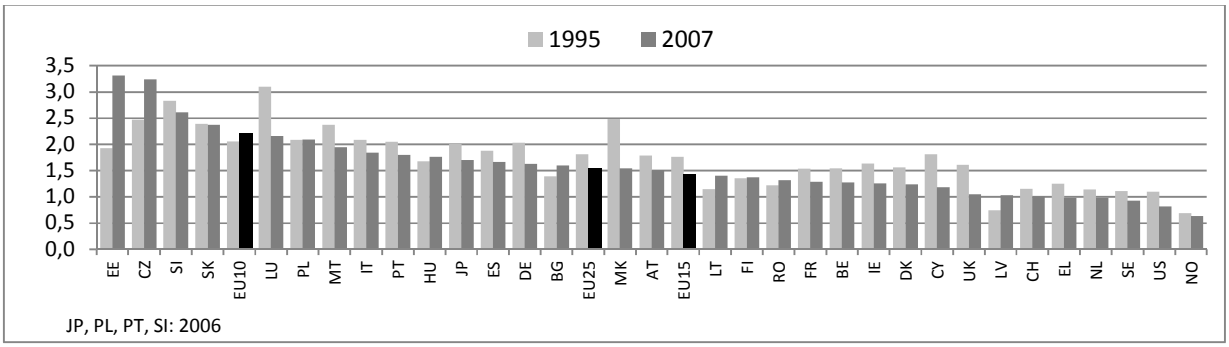


Figure 7: Employment, growth rates, annual average 1995-2007

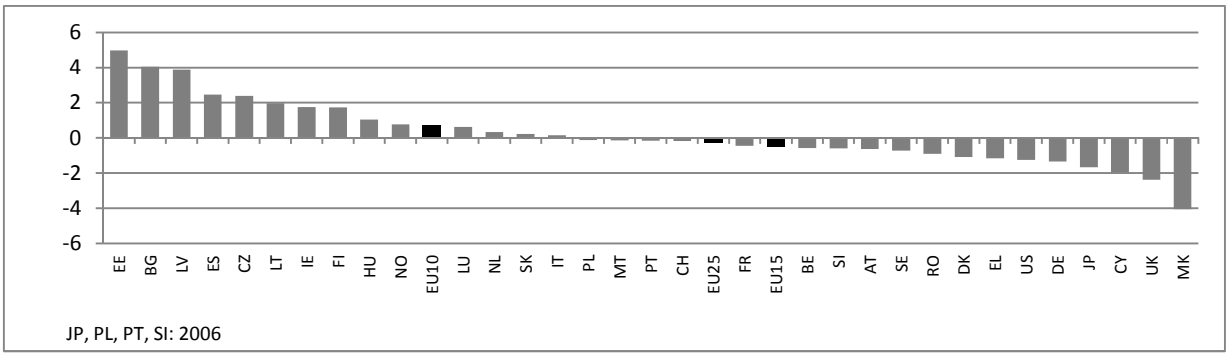
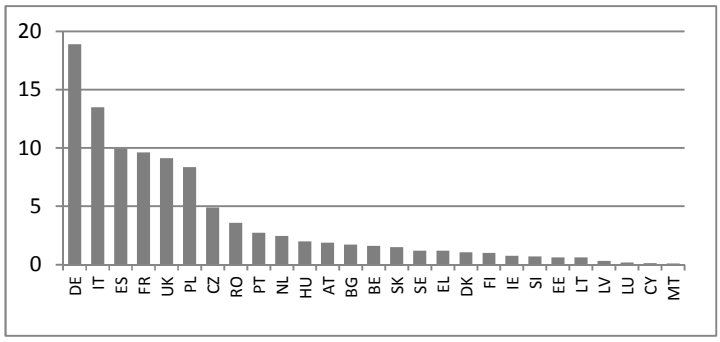


Figure 8: Employment, share of EU countries in EU27, 2007

With Europe Germany holds the highest share of employment in this sector with 18% which is followed by Italy with 13%. Spain, France, UK and Poland get shares from 10% to 8% with the remaining countries showing shares of below 5%.



Skill formation and ICT capital

The shares of medium educated workers in sectoral employment (Figure 9) range from 80% in the Slovak Republic to a minimum of 15% in Portugal. The EU15 average is at about 45%. As these shares also to some extent reflect the overall pattern of labour supply these shares tend to be higher in the Eastern European countries but with higher shares also found in Germany and Austria. In most countries these shares tended to increase over the period considered. The shares of high educated (Figure 10) are at about 18% in the EU15, however range from 25% in Spain to about 5% in Portugal. Apart from some outliers these shares tended to increase over time as well. Particularly strong increases are seen in Spain, the UK, France and Netherlands.

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

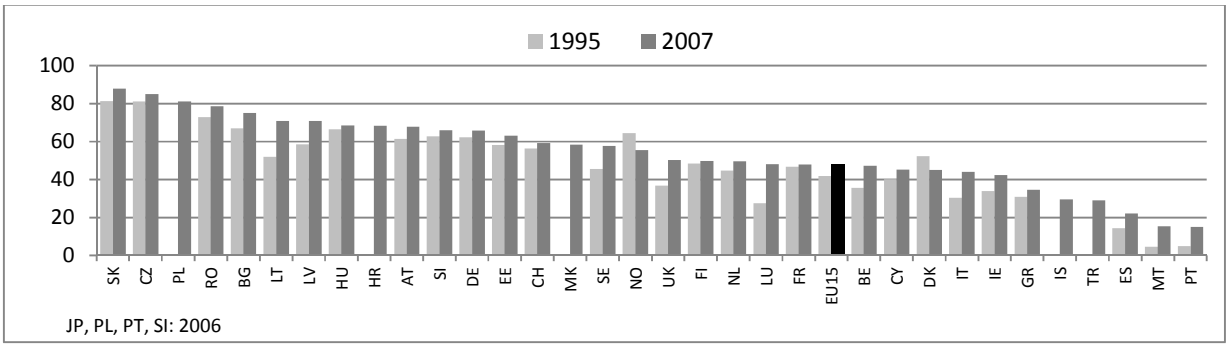


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

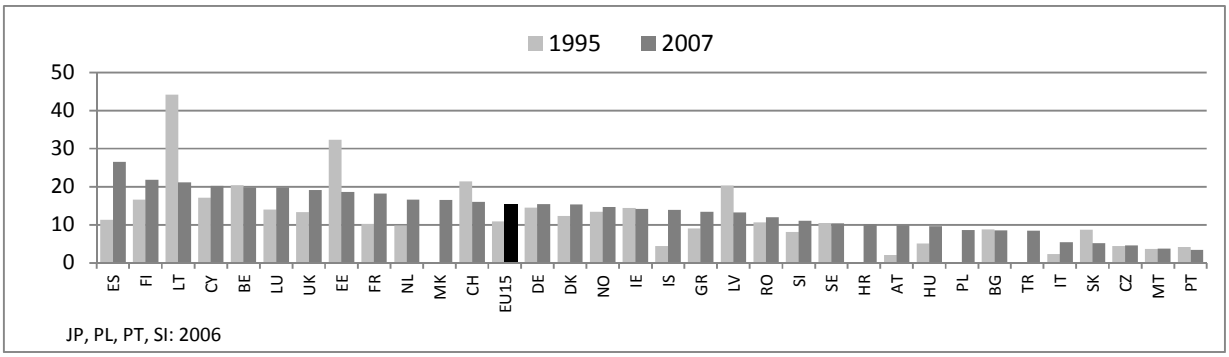
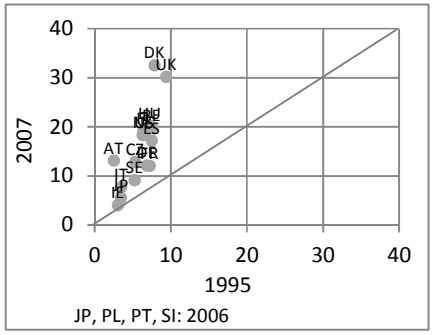


Figure 11: ICT capital stock, share in total capital stock in sector, in %

The share of ICT capital services in total capital services tended to increase quite strongly in most countries, particularly so for Denmark and the UK. Whereas the shares in all countries was at a level of less than 10% in 1995 in a number of countries these doubled. There is however still a quite range of shares reported across countries. The UK and Denmark report the highest shares with above 30%.

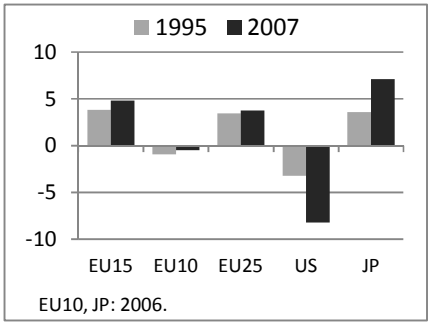


Trade and international integration

Figure 12: Net trade, in % of gross output in sector

In this sector the EU25 are running a trade surplus of about 4% in terms of gross output. However, within the EU25 the EU10 countries show a slight negative net trade which is however decreasing over time. Also Japan shows a positive and also increasing net trade in this period whereas in the US net trade is negative and deteriorating with a ratio of -8% in 2007.

The shares of employment in foreign affiliates in the several countries range from more than 40% (Czech Republic) to about 10% (Italy) and 15% (Spain) for countries for which data are available. Similar ranges are found when looking at the share of value added captured by foreign affiliates.



Large companies

Figure 13: Concentration rates: Share of 5 largest firms in total employment, in %

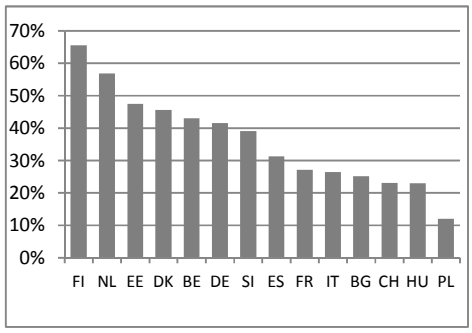


Figure 13 presents the employment shares of the five largest firms in total employment for countries. In Finland the five largest companies account for about 65% of total employment and in the Netherlands for about 55%, while in Estonia, Denmark, Belgium, Germany and Slovenia their share in total employment is about 40% or above. Six countries report shares between 20 and 30% (Spain, France, Italy, Bulgaria, Switzerland and Hungary), while in Poland the five largest firms comprise a share in total employment of slightly more than 10%.

Restructuring of large companies

There has been relatively little restructuring among large companies over the past 10 years. Job losses from restructuring have amounted to only just over 1% of their total employment in the companies concerned since 2003 (the European Restructuring Monitor recording a total of just over 115,000 over this period) and, according to the ERM, there have been no cases of off-shoring over this period. The scale of jobs losses from restructuring was slightly larger over the two years 2008-2009 (just over 2% of employment in the companies concerned each year) in the EU15 and larger still in the EU12, where it amounted to just under 4% of employment a year. Moist of the restructuring has taken the form of internal reorganisation, but bankruptcies and company closures have accounted for almost 30% of the total reduction in employment from restructuring, while off0shoring has been responsible for some 7%.

Sector Fiche

Manuf. of basic metals & fabricated metal prod., except machinery & equip. (NACE CH)

Value Added

Figure 1 presents the share of value added of manufacturing of basic metals and fabricated metal products (except machinery and equipment) in total value added for the countries under consideration plus some country groups in 1995 and 2007. The value added share in the EU15 and EU25 was roughly stable at slightly less than 3%. This can be compared to a share of slightly above 3% in Japan and 2.5% in the US. Larger changes in these shares can only be seen in Macedonia where it increased from 2% to 6% and the Slovak Republic with an increase from 4 to almost 6%; in Bulgaria the shares increased from 2 to 3%. In the other countries the shares are relatively stable with some smaller increases found in Austria, Iceland and Estonia. In some countries the shares decreased, particularly so in the UK and Romania. Despite these changes in terms of shares Figure 2 reveals that value added has grown in real terms in all countries with the exception of Japan. Particularly high growth rates can be observed in the Eastern European countries with growth rates well above 5%. On average, growth rate in the EU25 has been at about 2%.

Figure 1: Share in total value added, 1995, 2007

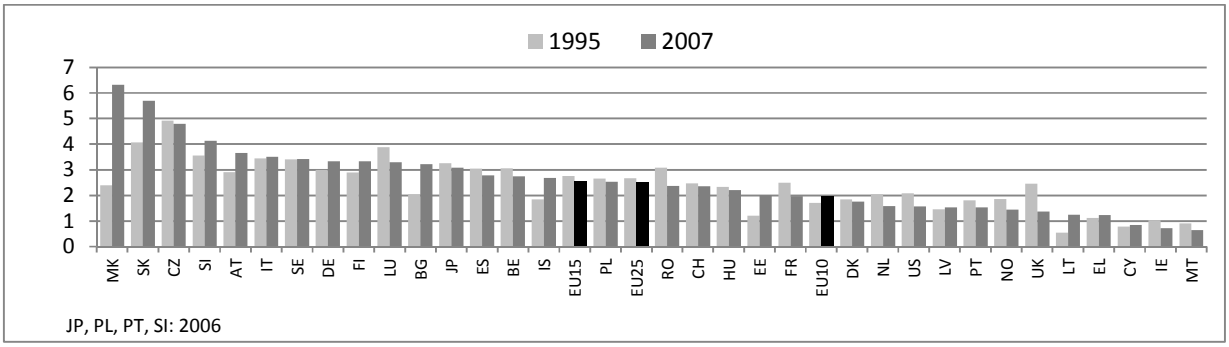


Figure 2: Value added, real growth rates, annual average 1995-2007

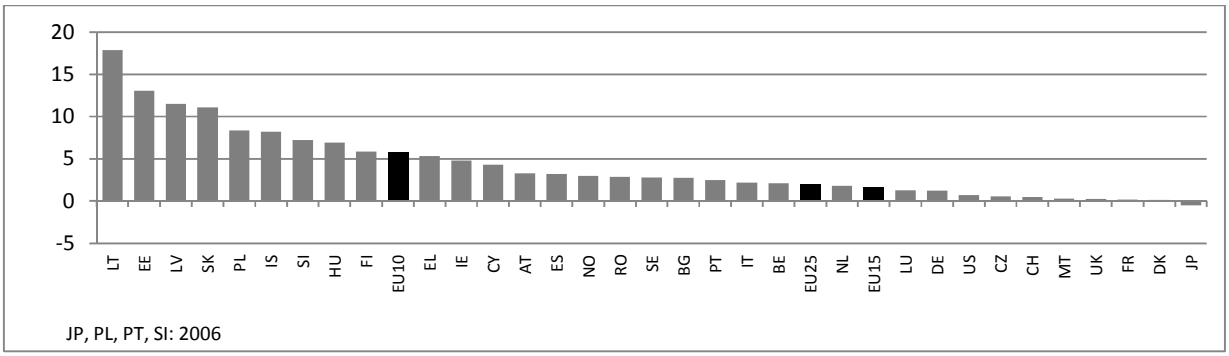
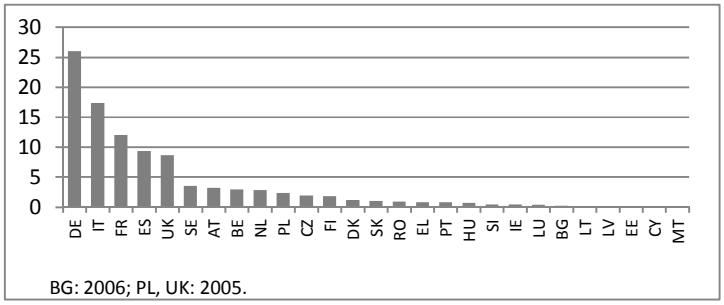


Figure 3: Value added, share of EU countries in EU27, 2007



Germany, Italy France Spain and UK account for about 70% of value added in Europe with Germany having the lion share with more than 25%. The share of Italy is 17%, that of France 12%. Spain and UK have shares of slightly less than 10%. All other countries account for less than 5% of value added of this sector in the EU27.

Productivity

Productivity levels as compare to the EU15 range from countries being up to 40% above this level (Norway, Belgium and to a lesser extent Austria, Finland and Netherlands). The US it mostly at the level of the EU15 whereas the productivity level in Japan is slightly below this. There is also range of countries reaching levels of about 50% as compared to EU15 which in most cases comprise Eastern European countries together with Portugal and Spain. However, particularly some of these countries managed to catch-up quite quickly which particularly includes Slovak Republic, Lithuania, Poland, Latvia, Estonia and Hungary.

This is also confirmed when looking at productivity growth rates which are well above the EU15 or EU25 average for Lithuania (15%), Slovak Republic, Estonia, Poland and Romania with growth rates around 10% and the remaining EU10 countries with growth rates around 5%. Some countries (Italy, Denmark, Bulgaria, Spain and Malta as well as France, Czech Republic and Italy) performed less well and show growth rates below EU15 average. Also Japan show a growth rate in this range, whereas US is doing slightly better than the EU15 average.

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

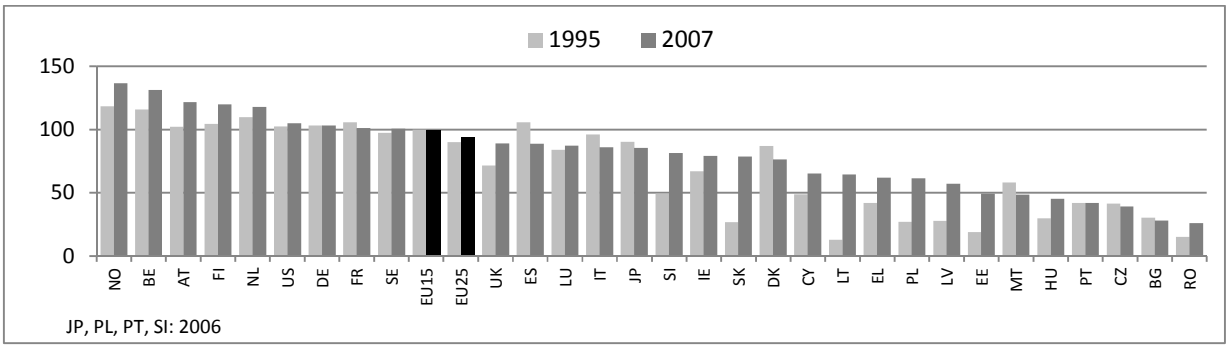
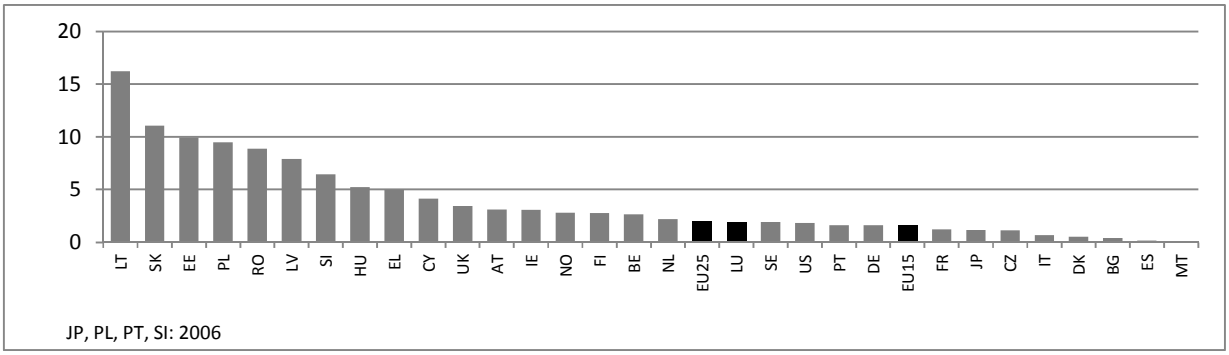


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

In terms of employment the share captured by this sector is about 2.5% for the EU25 (as well as for EU15). Larger shares are dominantly found in Eastern European countries with Slovenia and Czech Republic leading with almost 5%. Other countries of this region plus Germany and Italy show shares of about 3%. Lower than below EU25 shares are seen in Netherlands, UK, Spain and the US and Norway and other smaller European countries. These shares have been roughly stable with a slight decrease in most countries taking place. Slight increases are only found for Slovenia, Slovak Republic, Finland, and Estonia. In terms of growth rates about half of the countries managed to get positive employment growth rates in this sector, amongst them are Spain, Finland, Latvia, Estonia and Bulgaria with growth rates above 2%. Employment growth has been negative particularly in US, Romania, Japan and UK to mention the larger countries.

Figure 6: Share in total employment, 1995, 2007

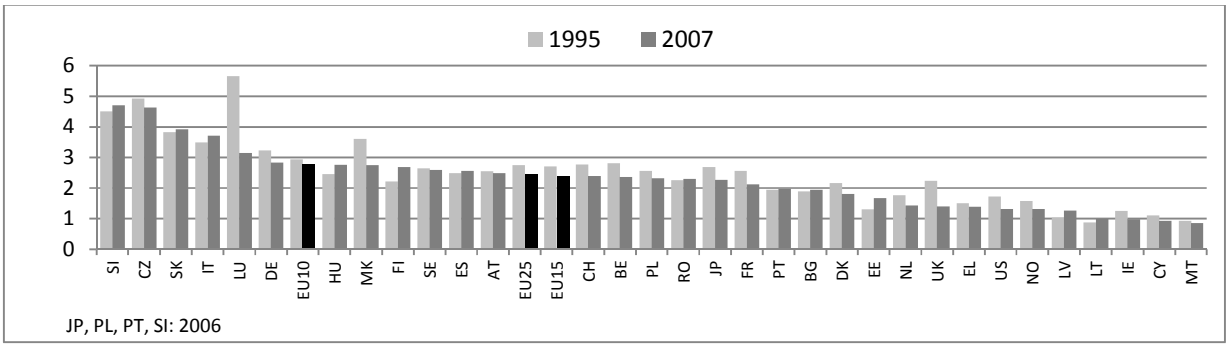


Figure 7: Employment, growth rates, annual average 1995-2007

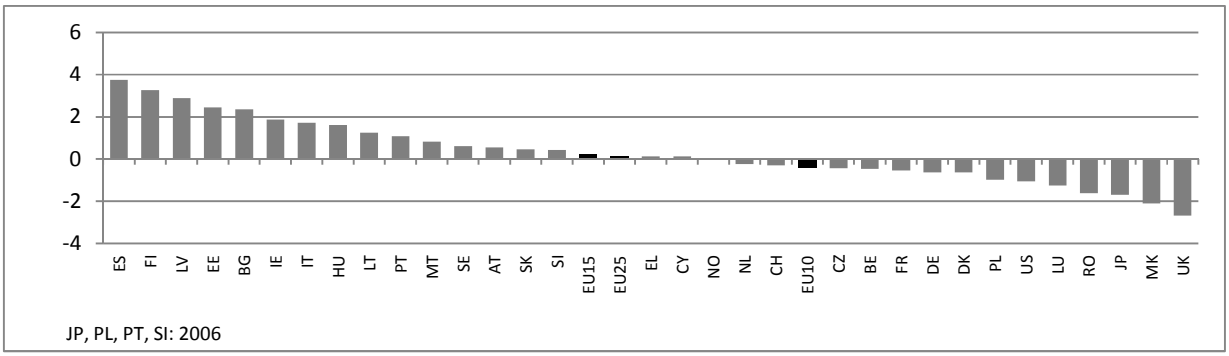
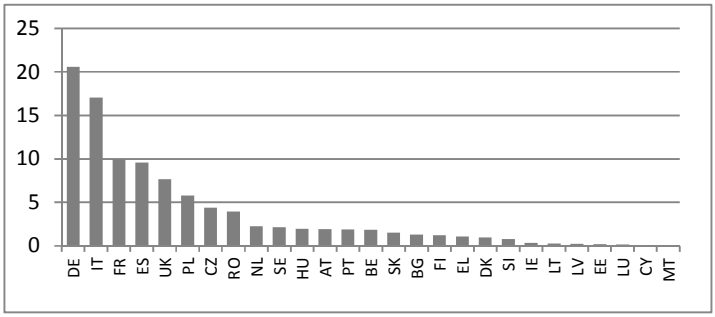


Figure 8: Employment, share of EU countries in EU27, 2007

When looking at the shares of individual countries in total EU27 employment in this sector one finds that Germany (20%), Italy (17%), France (10%), Spain (9.5%) and UK (7%) account for almost 65% of employment in this sector. Relatively larger shares are also captured by Poland, Czech Republic and Romania with shares of 6, 4.5 and 4% respectively.



Skill formation and ICT capital

The shares of medium educated workers in this sector ranges from more than or around 80% predominantly in the Eastern European countries plus Austria, Germany, Sweden and Switzerland which together with Finland, Denmark, France and Norway show above average EU15 shares. At the lower end Turkey, Malta, Spain and Portugal show shares of around 20% or less. In most though not all cases these shares have been slightly increasing; the few exceptions where these were decreasing are Latvia, Denmark and Norway.

The shares of high educated workers are on average around 10% with shares being significantly larger in Lithuania, Spain, Ireland, Estonia, UK, Belgium and Finland. Some of the countries showing (significantly) lower shares do however perform better in terms of medium educated shares as shown above.

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

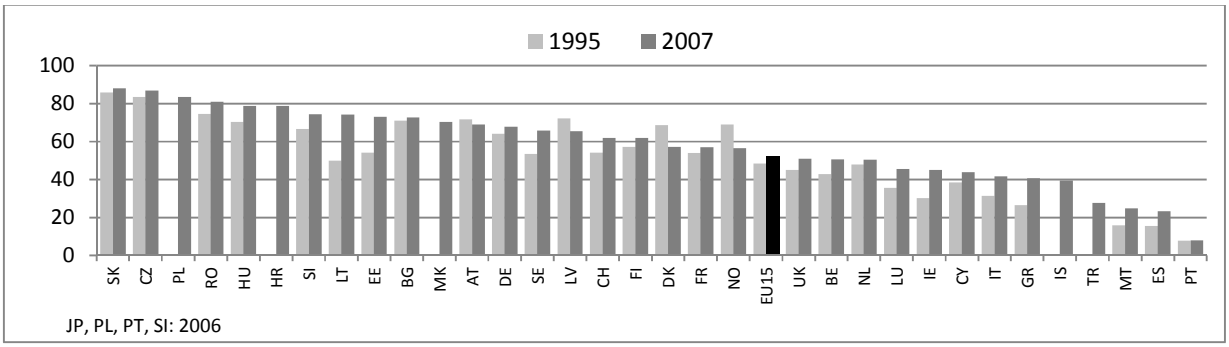


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

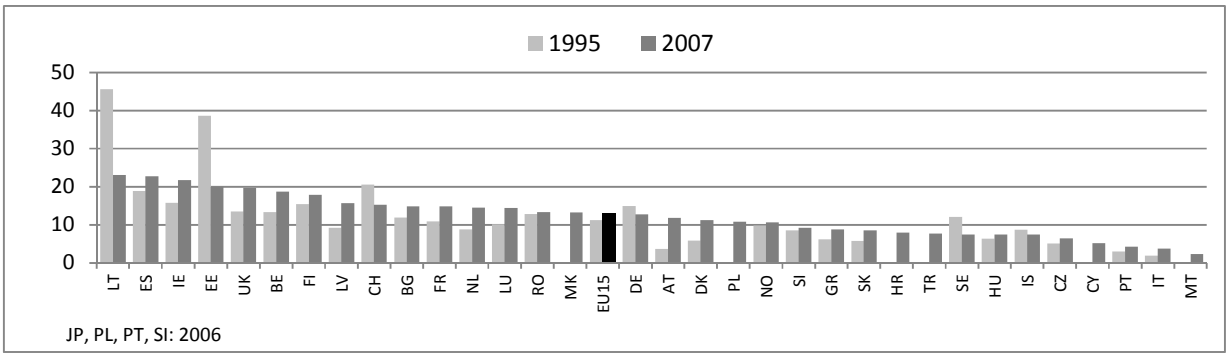
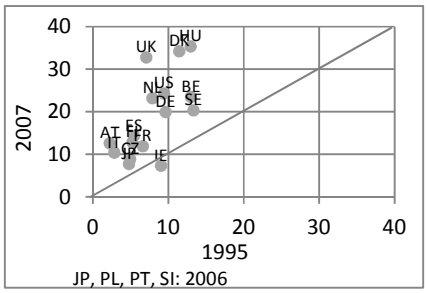


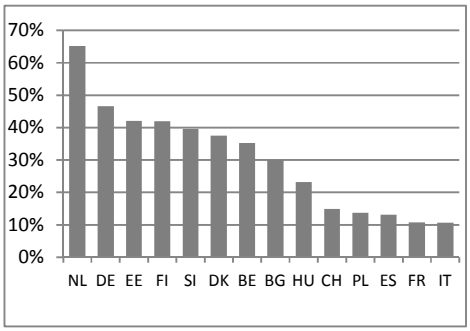
Figure 11: ICT capital stock, share in total capital stock in sector, in %

The share of ICT capital in total capital has increased in all countries over the period considered. Most countries started from a share of less than 10% in 1995 but some countries managed to get much larger shares in 2007 ranging from about 35% (Hungary, Denmark, UK) to 25% (US, Belgium, Sweden) and to less significant changes in Austria, Spain, France with shares between 10 and 15%.



Trade and international integration

Figure 12: Net trade,
in % of gross output in sector



Trade in this sector for the EU15 is roughly balanced, however the EU10 countries turned from a surplus to a deficit which implies that also the balance for EU25 turned slightly negative in 2007. Japan shows a surplus of about 4% in terms of gross output which as improved over time whereas the US is running a rather big deficit of net trade with about 12% of gross output which has worsened since 1995 (-5%). The share of employment in foreign affiliates on average (for country for which data are available) is less than 20% with shares being highest in Czech Republic, Slovak Republic and France. Similar magnitudes are found when considering the share of foreign affiliates' value added which however tend to be slightly larger for the countries mentioned above.

Large companies

Figure 13: Concentration rates: Share of 5 largest firms in total employment, in %

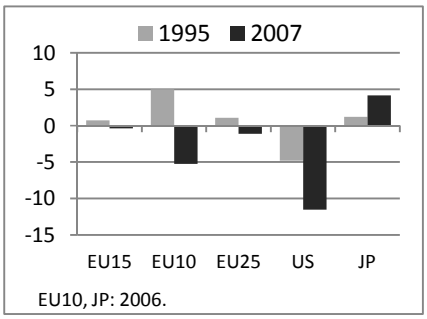


Figure 13 presents the employment shares of the five largest firms in total employment for countries. In the Netherlands the five largest companies account for about 65% of total employment, while in Germany, Estonia, Finland and Slovenia their share in total employment is about 50% or above. In Denmark, Belgium and Bulgaria the share is between 30% and 40%, while in Hungary the share is slightly above 20%. Five countries report shares of the five largest firms in total employment of slightly more than 10% (Switzerland, Poland, Spain, France and Italy).

Restructuring of large companies

The scale of restructuring in the basic metal industry has been slightly above average over the past 10 years, though, as in other basic industries, the peak of restructuring in the EU15 occurred before then in the EU15, in the 1980s and early 1990s. Since 2003, according to the European Restructuring Monitor, job losses in large companies as a result of restructuring have amounted to around 200,000, or just under 2% a year of employment in the industry. Restructuring has been more intensive in the EU12 countries than the EU15 over the period, with an average of just under 4% a year losing their jobs in large companies in the industry since 2003 as a result and 5% a year before 2008. In the years of recession, 2008-2009, however, the reduction in employment as a result of restructuring was slightly larger in the EU15 than the EU12 (amounting to just over 3% a year). Restructuring has taken the form mainly of the internal reorganisation of businesses, though mergers and acquisitions have accounted for around 10% of the total jobs losses from restructuring and company or plant closures for another 10%. Relatively few cases of off-shoring have been recorded by the ERM in this industry.

Sector Fiche

Manufacture of computer, electronic & optical products; electrical equip. (NACE CI-CJ)

Value Added

The share of value added in manufacture of computer, electronical and optical products and electrical equipment for the EU15 is at around 2.5% and was slightly increasing since 1995. However, the range across countries is quite wide from almost 6% in Finland to almost zero in Cyprus and Iceland. Further there have been significant changes taking place over this period. Whereas the shares in total value added increased in Finland, Hungary, Czech Republic, Slovak Republic partly by 2 percentage points and in Germany by 0.5 percentage points, these decreased quite strongly in Ireland, the UK and France. The shares also decreased in the US from almost 3% to less than 2% whereas remained roughly stable in Japan at around 4%. However, all countries experienced positive growth rates of real value added over the period considered which has been particularly strong in Sweden and Finland together with the Eastern European countries. ON average the growth rate for the EU25 has been at 5%, whereas those of the EU10 by about 10%. Also the US achieved such a high growth rate whereas in Japan it was slightly lower by 8%.

Figure 1: Share in total value added, 1995, 2007

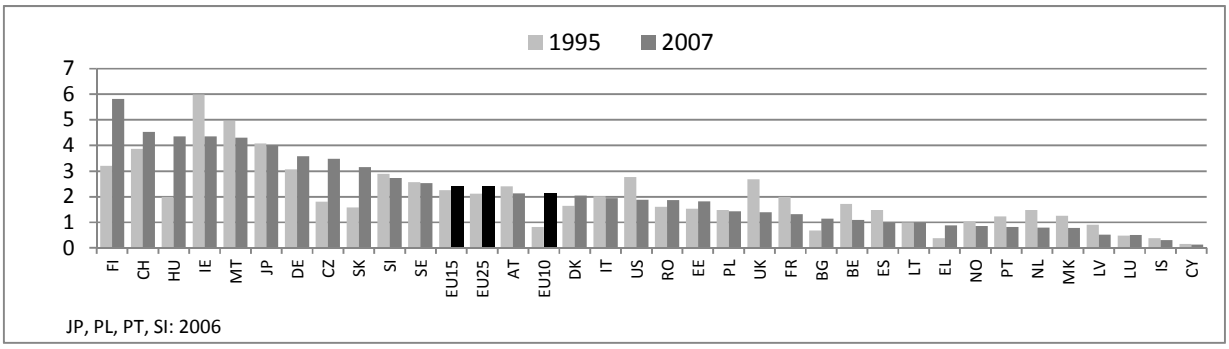


Figure 2: Value added, real growth rates, annual average 1995-2007

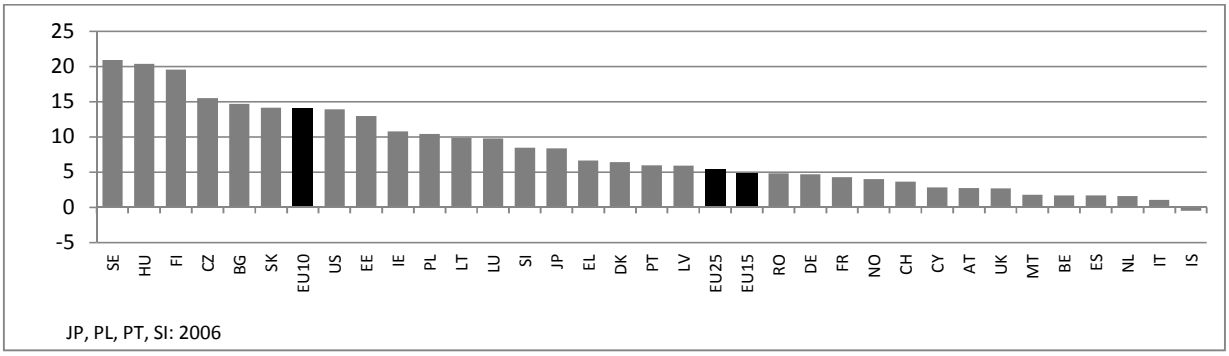
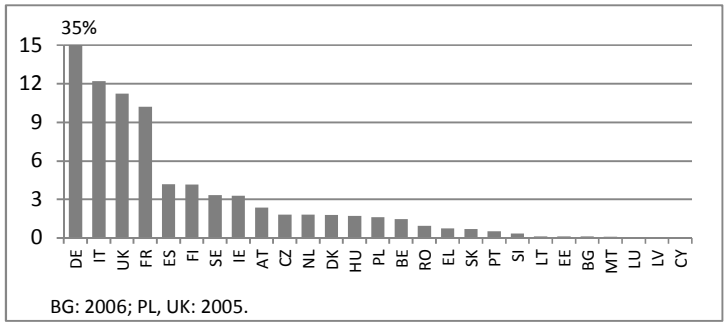


Figure 3: Value added, share of EU countries in EU27, 2007

With respect to the employment shares within Europe Germany captures 35%, whereas the next countries in the ranking account for about 10% (Italy, UK, France). All other countries capture less than 5% of European employment in this sector.



Productivity

In terms of productivity levels relative to EU15 there are a few outstanding countries which gained productivity over this period. These countries are Finland, Sweden and the US and to a less extent Ireland and Japan. Other bigger European countries like Germany and France are close to the EU15 level. Due to the strong increase of productivity in some selected countries the relative productivity levels declined in most of the other European countries like Austria, Netherlands, Spain, Italy and Malta. Other countries, which started from a much lower level, succeeded in catching-up; this group mostly comprises the Eastern European countries. However, all countries succeeded in having positive productivity growth though the rates differed quite a bit across countries. Whereas the faster growing countries achieved growth rates of 22% (Sweden), and more than 15% (Finland, US), these have been lower for the EU15 and EU25 average with about 6% which explains the relative decline in productivity levels as documented in Figure 4.

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

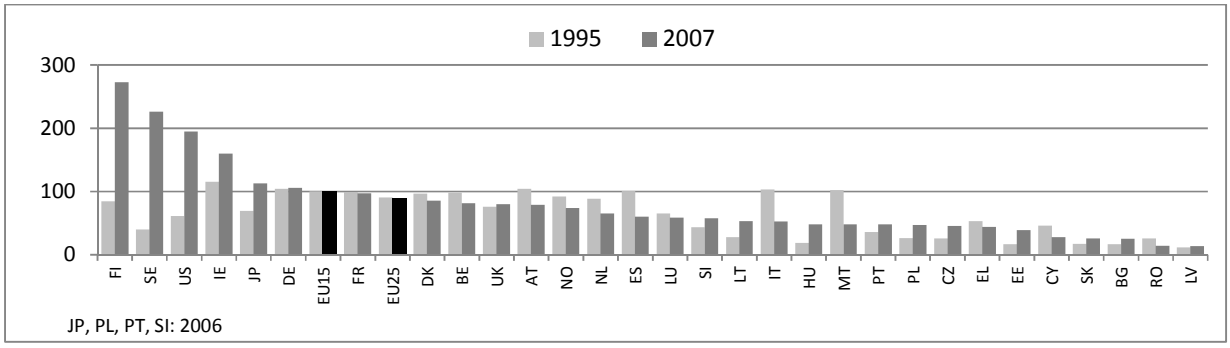
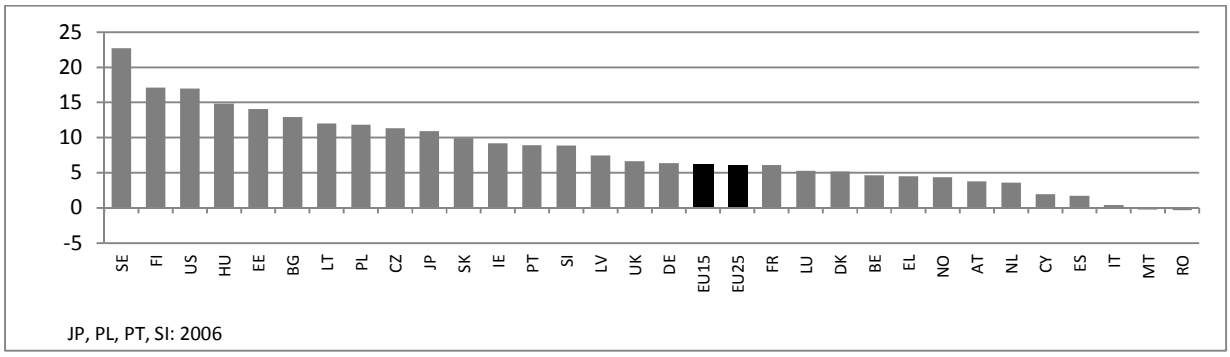


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

Figure 6 provides evidence of sectoral employment shares in the individual countries. As for value added the range is quite large from 4% in Hungary, Czech Republic and Slovak Republic and slightly less in Malta and Switzerland it goes down to less 0.5% in Spain and Cyprus. The EU15 and EU25 average is at about 2%. Again there have been significant changes in these shares over the period considered with the shares increasing particularly in Hungary, Czech Republic and Slovak Republic and declining shares in most other European countries. The employment share was also declining in Japan from 3.5 to 2.7% and in the US from 2% to 1.5%. Growth rates have been positive mostly in the Eastern European countries and have been particularly high in Romania with more than 8% and in other with about 4%. Positive growth rates are also found for Finland (2%) and Spain (1.8%). For the EU15 as a whole the growth rate has been slightly negative with -0.5% with a range from slightly negative in Austria to -2.5% in the UK. Employment growth rates have also been negative in the US (-2%) and Japan (-2%).

Figure 6: Share in total employment, 1995, 2007

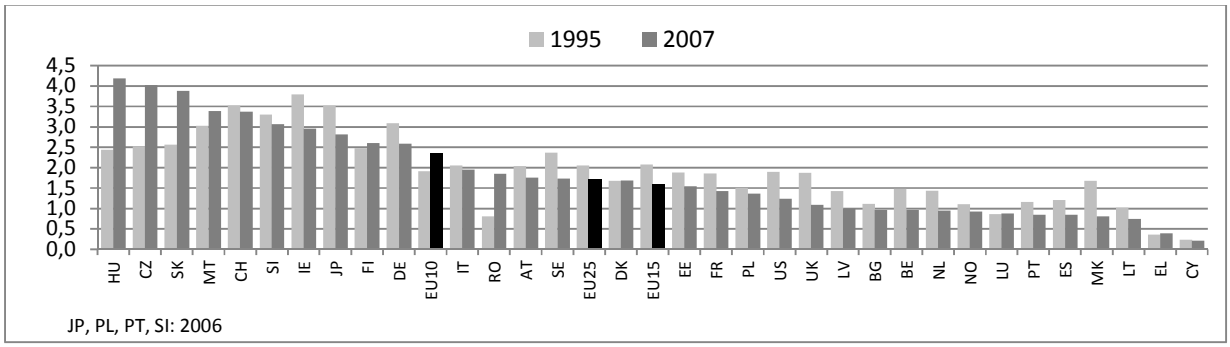


Figure 7: Employment, growth rates, annual average 1995-2007

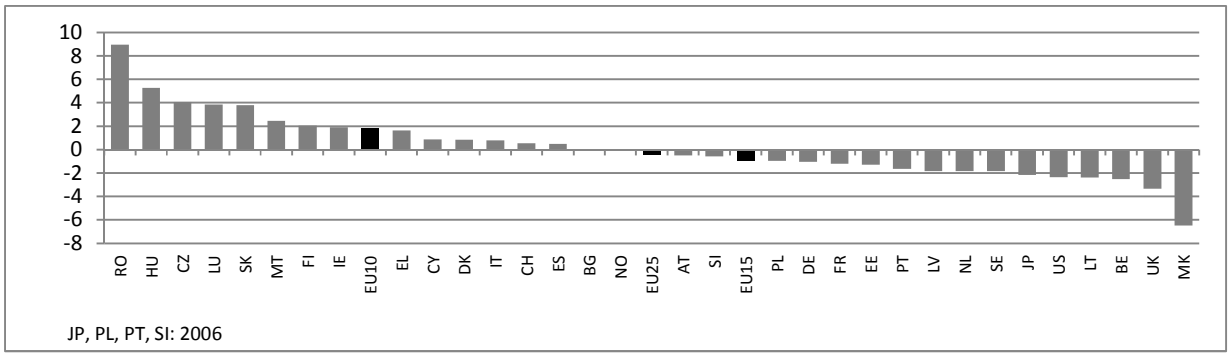
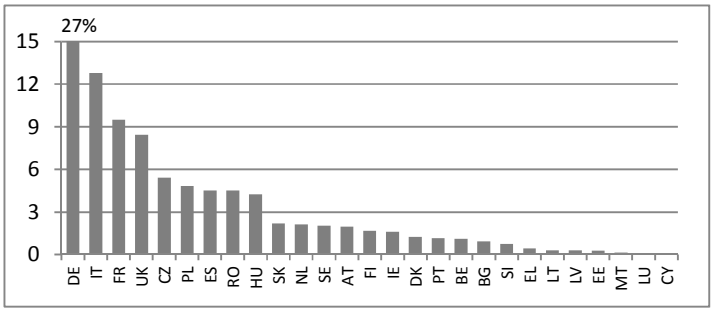


Figure 8: Employment, share of EU countries in EU27, 2007

In terms of employment Germany holds a share of about 27% of total EU27 employment in this sector. The next countries are Italy with 13%, France (9%), UK (8%). A number of Eastern European countries (Czech Republic, Poland, Romania, Hungary) together with Spain get a share of about 5%. The remaining countries account for less than 3%.



Skill formation and ICT capital

The share of medium educated employed persons in the EU15 is around 45% with a slight tendency to increase. These shares however range from 80% in some of the Eastern European countries to slightly above 20% in Spain, Portugal, Luxembourg and Malta also reflecting the supply side of employment with respect to educational attainment levels. In most cases these shares have been roughly stable. There are slight increases taking place in Poland, Lithuania, Hungary and Greece. In other countries like Norway, Denmark and Finland these shares were even decreasing as particularly shares of high educated increased. For the EU15 the high educated account for a share of about 30% which was increasing over the period considered. The shares however range from about 55% in Finland to less than 10% in Hungary, Czech Republic and Slovak Republic. In most cases (with exceptions of Estonia, Lithuania and Romania) these shares were increasing.

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

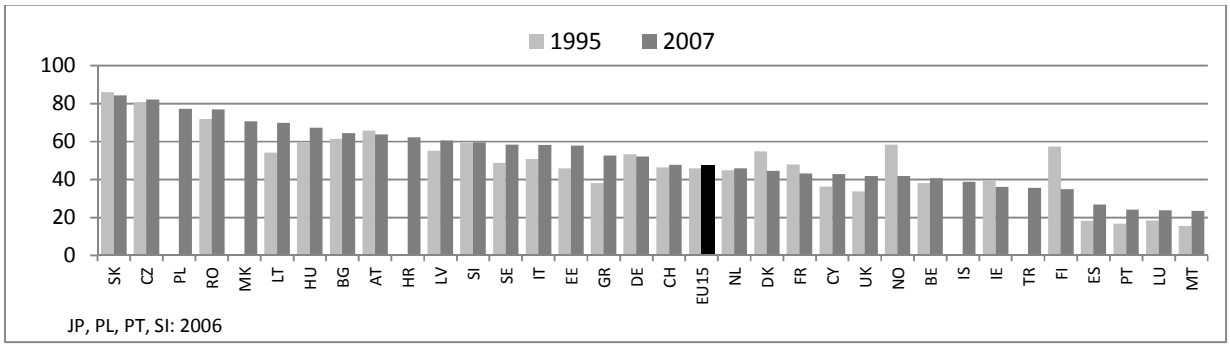


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

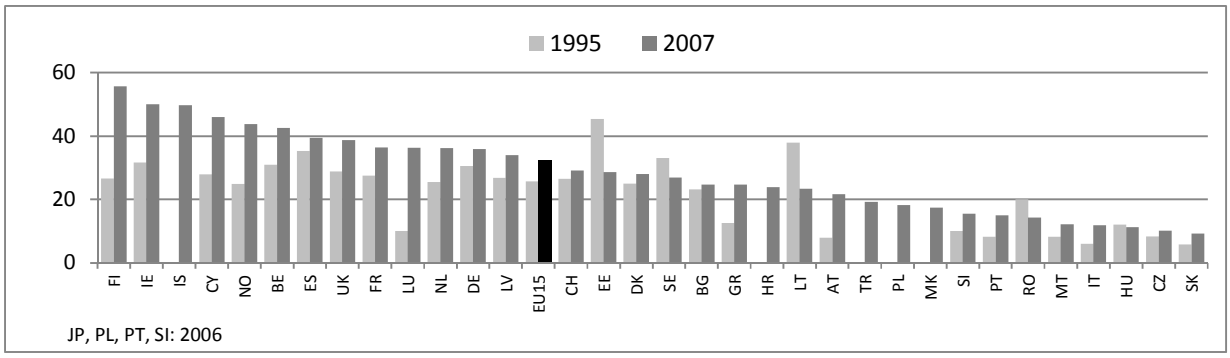
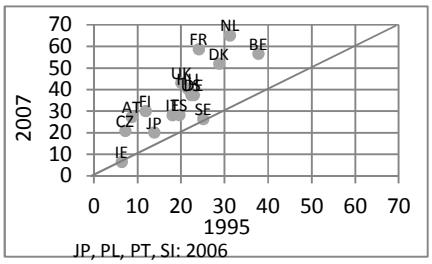


Figure 11: ICT capital stock, share in total capital stock in sector, in %

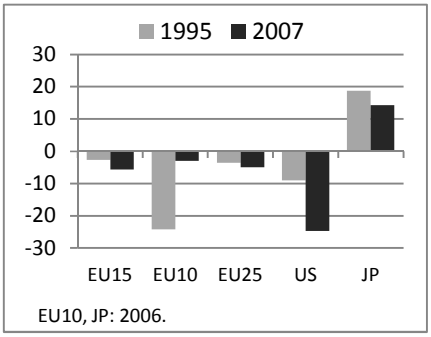
The shares of ICT capital in total capital services was already differentiated in 1995 ranging from less than 10% to almost 40%. For almost all countries these shares increased until 2007 and now range up to 60-70% in France, Belgium and Netherlands. The bulk of the other countries report however shares of about 40-45% (e.g. UK, Hungary, Germany) or between 20 and 30%



Trade and international integration

Figure 12: Net trade, in % of gross output in sector

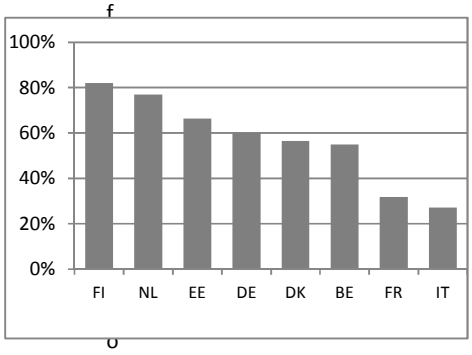
The EU15 was running a trade deficit of about 5% in terms of gross output in this sector in 2007 which deteriorated somewhat since 1995. The EU10 countries on the other hand succeeded in reducing the deficit from -20% to about -3% in the period 1995-2007. In the US the trade deficit also deteriorated from -5% to -22% whereas Japan managed to keep its trade surplus with a slight decline to 16% however. The share of foreign affiliates' employment was quite high in the Czech Republic, Slovak Republic and Hungary with about 50% or more, in Ireland this was even higher with almost 70%. Other countries report lower shares with about 30% (Sweden, France) or about 13% as in Italy. These magnitudes and structures are relatively similar when considering foreign affiliates' value added



shares.

Large companies

Figure 13: Concentration rates: Share of 5 largest f



O

tal employment, in %

Figure 13 presents the employment shares of the five largest firms in total employment for countries. In Finland and the Netherlands the five largest companies account for about 80% of total employment, while in Estonia, Germany, Denmark and Belgium their share in total employment is about 60%. France and Italy report a share of the five largest firms in total employment of between 25% and 30%.

Restructuring of large companies

Substantial restructuring of the sector has occurred over the past 10 years. This has taken the form largely of the internal reorganisation of large companies, though off-shoring has also been significant as compared with other industries, though it has still accounted for only around 6% of the total jobs losses from restructuring since 2003. Over this period, a total of around 550,000 jobs were lost in the EU as a consequence of restructuring in the industry, according to the European Restructuring Monitor, equivalent to just under 4% of total employment in large companies each year. Restructuring has been much more extensive in the EU15 than the EU12, where jobs have tended to be created in the industry rather than reduced. In the EU15, jobs losses from restructuring have amounted to around 5% a year of employment in the companies concerned since 2003, the figure rising to just over 7% a year in the two-years 2008 and 2009. In the EU12, it was just over 5% a year in these two years.

Sector Fiche

Manufacture of machinery and equipment n.e.c. (NACE CK)

Value Added

Value added shares in manufacture of machinery and equipment in total value added account for about 2% in EU15 and EU25 and slightly less in EU10 (1.5%). In the US these shares were at a level of 1% whereas this sector accounted for 2% in Japan. Amongst all countries Germany reached the highest share with more than 3.5% followed by Finland, Czech Republic, Switzerland and Sweden with slightly less than 3%. Much lower shares are found for smaller countries but also for Spain with less than 1%. The shares have been increasing significantly only in Germany, Austria and Slovenia but declined in most other countries, notably in Slovak Republic, Poland, Romania and UK as well as in Ireland and the Baltic states with the exception of Estonia. Growth rates of real value added range from 8-10% in the Eastern European countries (the EU10 growth rates 8%) to around 2% for the EU15 countries with a range between 1 and 4%. Growth rates are relatively low in Switzerland, UK and even negative in Cyprus and Romania.

Figure 1: Share in total value added, 1995, 2007

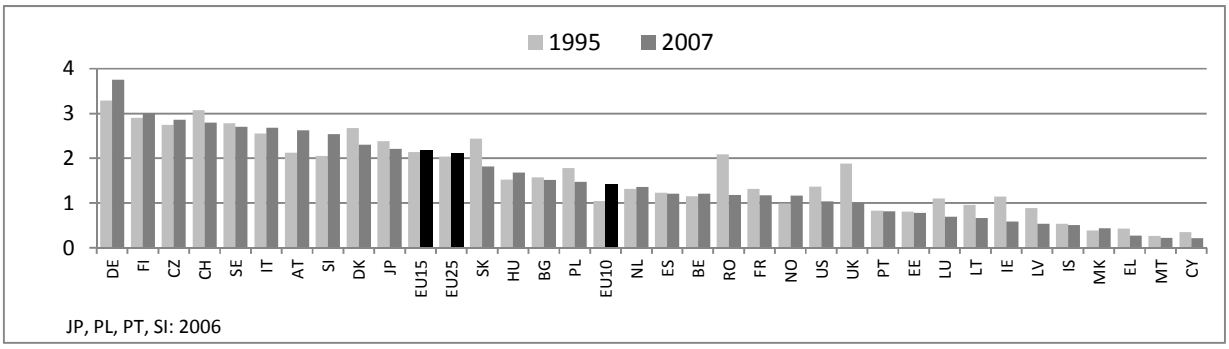


Figure 2: Value added, real growth rates, annual average 1995-2007

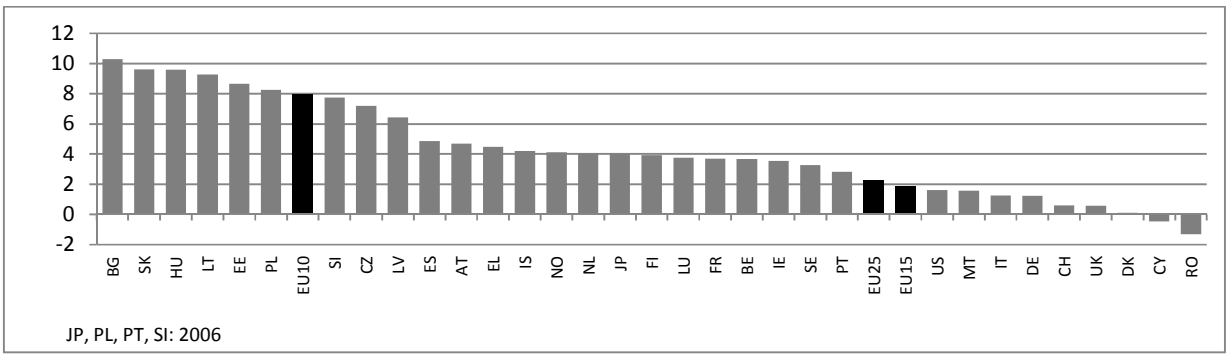
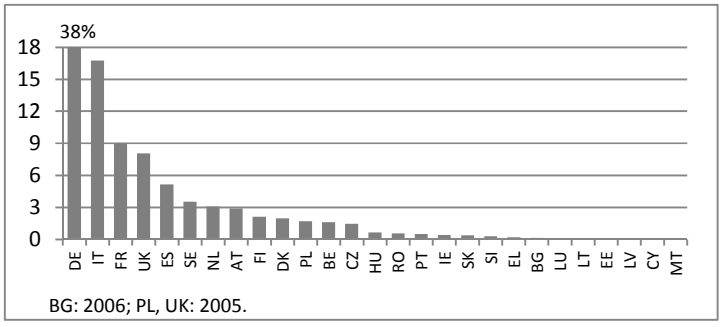


Figure 3: Value added, share of EU countries in EU27, 2007

Germany accounts for about 38% of European employment in this sector. This is followed by Italy with 18%, France (9%) and UK (8%). Spain and Sweden account for a share of roughly 5%



Productivity

A few countries perform significantly better compared to EU15 average. These are particularly Luxembourg and Belgium with a few countries performing slightly better in 2007 (France, Austria, Finland, Germany, Netherlands as well as the US). Most of the Eastern European countries experienced a strong convergence process and some of them now reach 50-60% of the EU15 level. Some countries still perform less well with productivity levels of below 50% compared to EU15 (Portugal, Malta, Cyprus, Estonia, Greece, Bulgaria, Latvia and Romania). This strong convergence process is also reflected in productivity growth rates which for the Eastern European countries reach from 8% to more than 15%. These rates are well beyond those for the EU15 countries which on average reached a growth rate of about 2.5%.

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

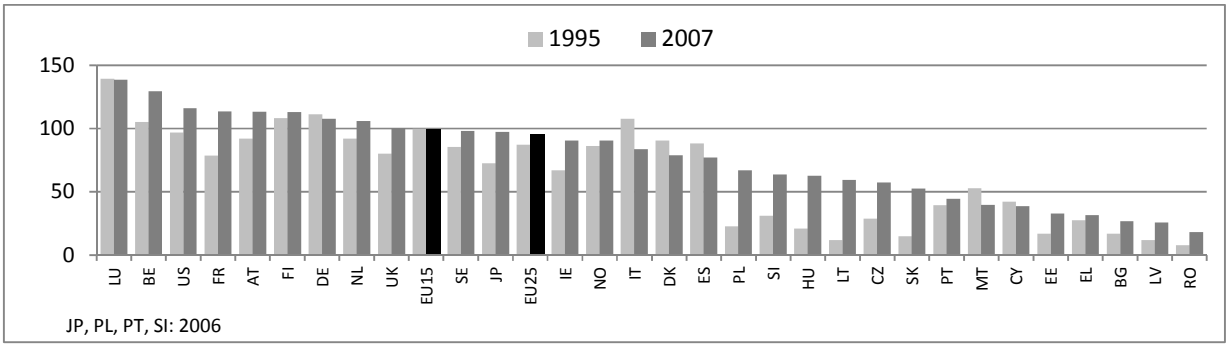
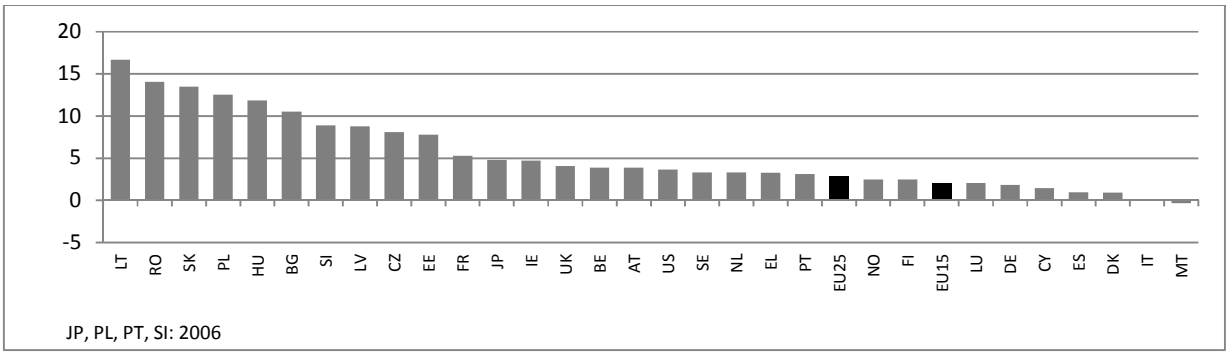


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

In terms of employment the shares of this sector in total employment of each country range from about 3% in Czech Republic, Slovenia and Germany to less than 0.5% in Macedonia, Cyprus and Malta. On average the share for EU15 is at about 1.7%. These shares have been decreasing in almost all cases, only Italy and Austria small increases can be found and some countries show stagnant shares (Finland, Norway, Netherlands, Estonia).

In terms of growth rates most countries experienced a decline in employment with relatively strong declines in the EU10 countries (-2.1%). Also more advanced economies like US and UK experienced significantly negative employment growth rates. In a few countries however employment has grown, notably so in Spain with more than 4% and Malta, Italy, Norway and Greece with almost 2%.

Figure 6: Share in total employment, 1995, 2007

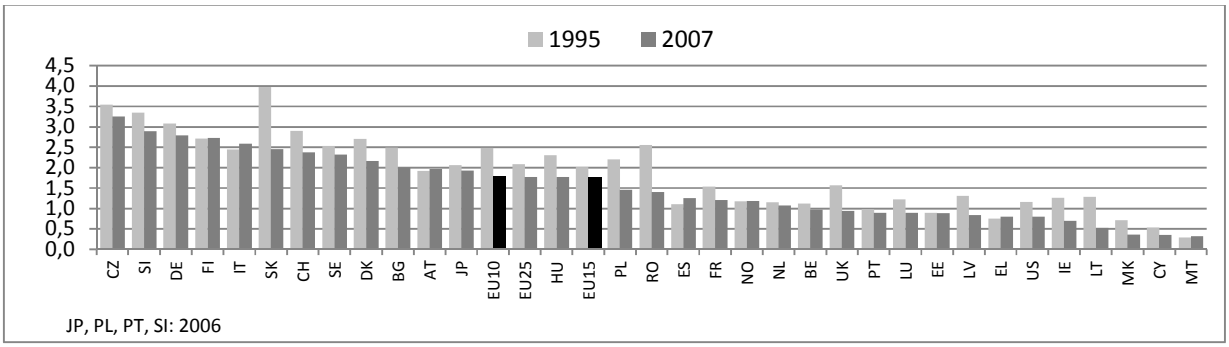


Figure 7: Employment, growth rates, annual average 1995-2007

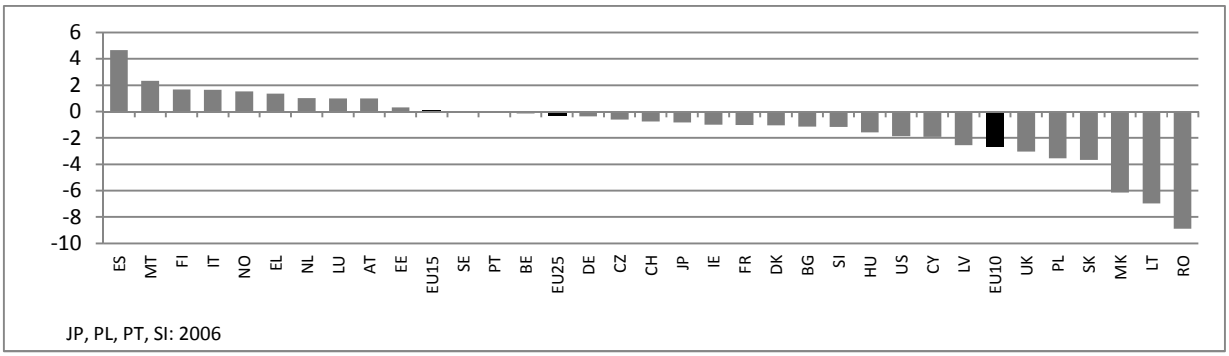
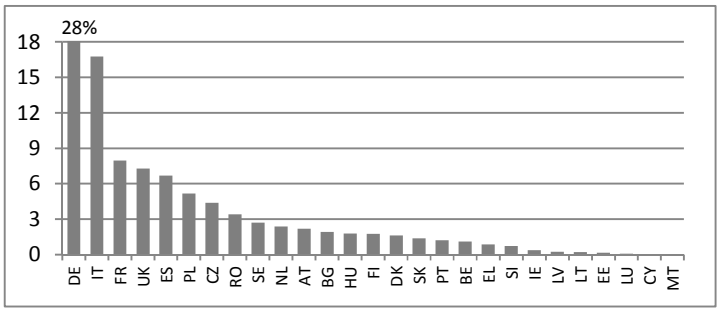


Figure 8: Employment, share of EU countries in EU27, 2007

Germany (28%), Italy (16%), France (8%), UK (7%) and Spain (6.5%) account for the largest shares in overall EU27 employment in this sector. Some of the Eastern European countries show shares of almost 5% (Poland, Czech Republic, and maybe Romania).



Skill formation and ICT capital

Figure 9 reports the shares of medium educated workers in this sector. For the EU15 the share is at about 55% with large differences across countries. Somewhat reflecting the supply side the shares range from more than 80% (Slovak Republic, Czech Republic) to 25% (Turkey, Spain) and less than 20% in Portugal. In most countries these shares have been roughly stable with some exceptions: Large increases are seen in Sweden, Estonia, Lithuania and Luxembourg and declines in Latvia, Denmark and Norway.

The share of high educated employed persons on average for the EU15 was at about 22% but reached more than 30% in Spain, Finland, Latvia, Ireland and Netherlands, and goes down to less than 10% in Czech Republic, Slovak Republic, Macedonia, Italy and Portugal.

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

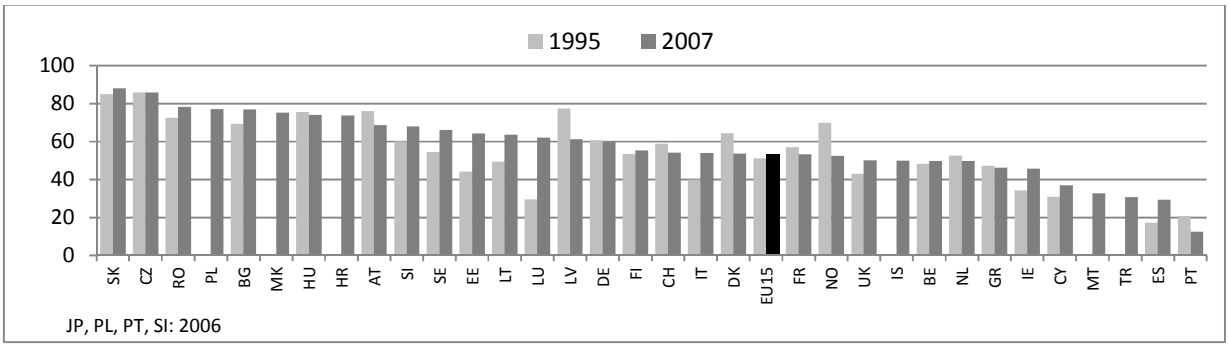


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

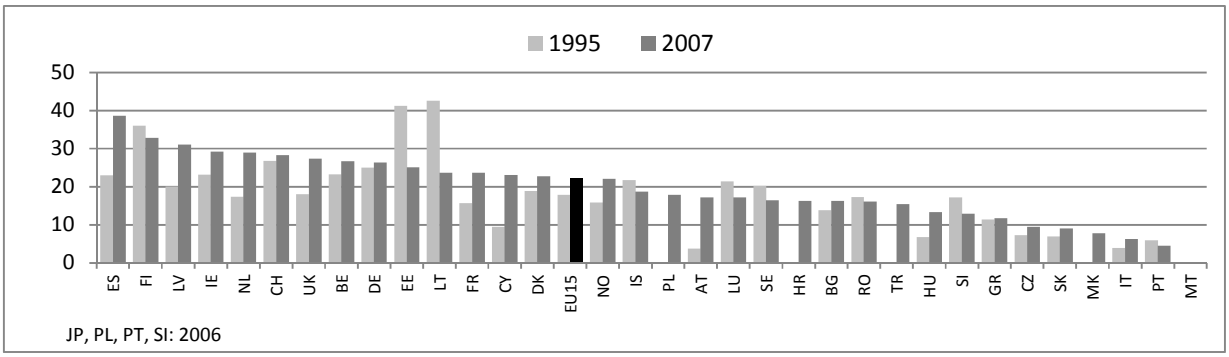
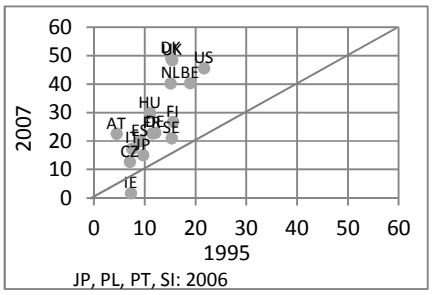


Figure 11: ICT capital stock, share in total capital stock in sector, in %

Similar to other sectors the countries got more diversified with respect to the share of ICT capital in total capital. In 1995 the shares for all countries reached not more than 20% but now goes up to about 50% in case of Denmark, US, Netherlands and Belgium. The bulk of the other countries have shares between 20 and 30% with some countries also going down to 15%. In all cases however (with the exception of Ireland) these shares have been increasing since 1995.

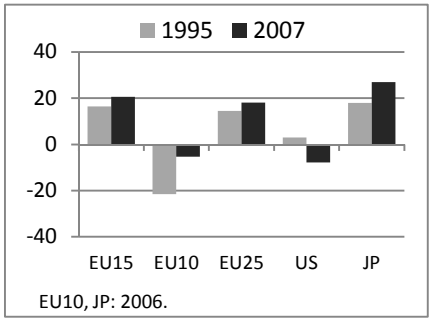


Trade and international integration

Figure 12: Net trade, in % of gross output in sector

In terms of net trade the EU15 performed quite well in this sector showing a trade surplus of about 20% in terms of gross output in 2007 which was also slightly increasing since 1995. The EU10 countries still show a slightly negative balance (-4%) but this declined from -20%. In this sector the US shows only a slightly negative balance of about-6%. Japan shows an even higher surplus as compared to the EU15 with about 25% in terms of gross output.

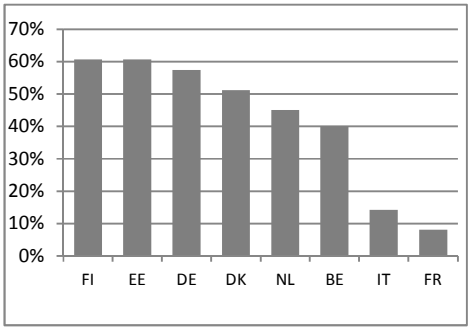
The shares of foreign affiliates' employment are on average higher as compared to other sectors ranging from 20% in the US to 40% in France, for example. These shares tend to be even higher when considering value added where e.g. Czech Republic, France and UK reports shares of more than 40%.



Large companies

Figure 13: Concentration rates: Share of 5 largest firms in total employment, in %

Figure 13 presents the employment shares of the five largest firms in total employment for countries. In Finland, Estonia and Germany the five largest companies account for about 60% of total employment, while in Denmark their share in total employment is about 50%, in the Netherlands about 45% and in Belgium 40%. Italy reports a share of the five largest firms in total employment of about 15%, while France of slightly less than 10%.



Restructuring of large companies

Restructuring has been less extensive in the Machinery and equipment industry over the past 10 years than in many other industries. The European Restructuring Monitor records an overall job loss of some 180,000 since 2003, which is equivalent to an average of around 1.5% a year of total employment in the companies in the industry concerned. The extent of restructuring has been slightly larger in the EU15 than in the EU12, especially in the recession years of 2008 and 2009, resulting in a reduction of employment in each these two years of just over 4% of the total employed in large companies in the industry (as against just under 4% a year in the EU12). Restructuring has mainly taken the form of the internal reorganisation of the companies concerned (i.e. down-sizing), but off-shoring has been more important than in other industries, accounting for just over 6% of the total job losses from restructuring since 2003. Much of this has taken the form of relocation of production from the EU15 to the EU12.

Sector Fiche

Manufacture of motor vehicles, trailers and semi-trailers (NACE C 29)

Value Added

This sector accounts for a share of about 2% in total value added in EU-25. Larger shares are found in countries with a dominant car industry or supplying industries, i.e. Germany, Czech Republic, Hungary, Japan which show a share of 3% or more in 2007. These shares were growing in a number of countries over the period considered, particularly the Eastern European countries which became important suppliers of parts and components in the production process or where car manufacturing started driven by foreign direct investments. Shares however decreased in a number of other countries which points towards a regional clustering process. These changes in shares is also reflected when looking at growth rates of real value added (Figure 2) where the aforementioned countries show significantly higher growth rates than the average.

Figure 1: Share in total value added, 1995, 2007

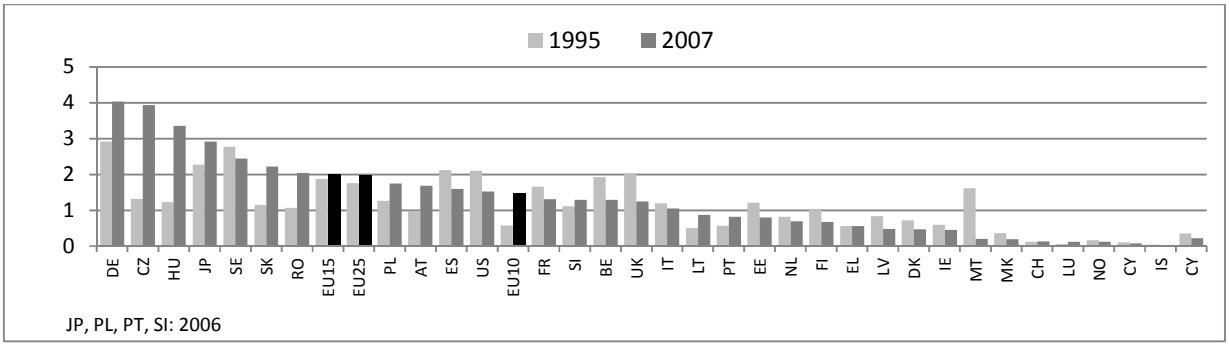


Figure 2: Value added, real growth rates, annual average 1995-2007

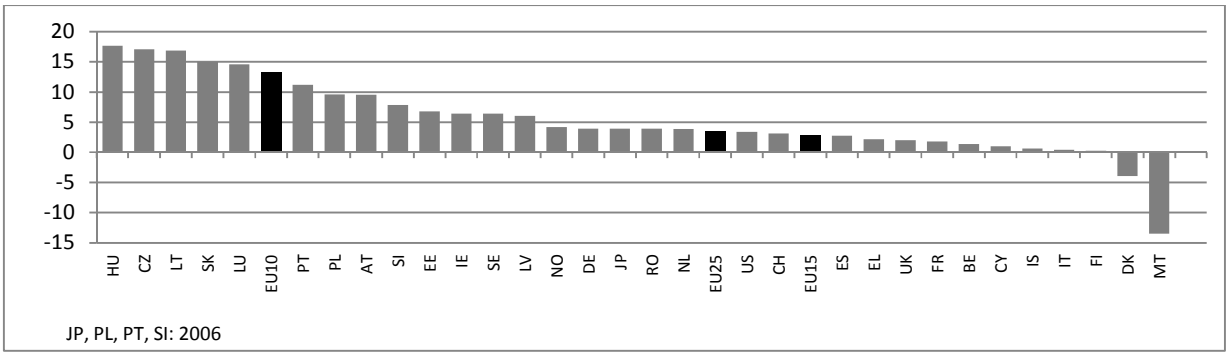
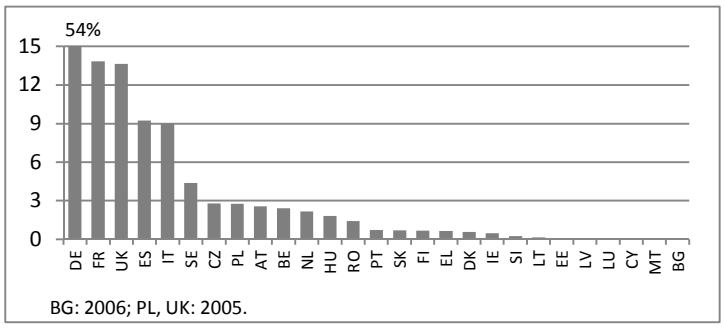


Figure 3: Value added, share of EU countries in EU27, 2007

At the European level there is a clear dominance of Germany which accounts for more than 50% of total value added in the EU27 countries. Other relatively larger suppliers are France, UK, Spain and Italy which however accounts for a share of roughly 10% only. The shares in the other countries are less than 5%.



Productivity

In terms of productivity levels (Figure 4) only a few countries perform better when compared to the EU15; these countries are Austria, Germany, Luxembourg and the US. However, for a range of countries the difference is not too large. A few countries including Finland, Polen, Greece amongst others, however still show productivity levels of less than 50% compared to EU15. Further some countries experienced a strong catching-up process, notably the Eastern European countries like Hungary, Czech Republic, the Slovak Republic and some of the Baltic states. But also other countries (e.g. Portugal) performed quite well. Only a few countries declined in relative productivity performance, notably Spain and Italy and to less extent Japan. The catching-up process of the countries mentioned above is also clearly reflected when looking at productivity growth rates (Figure 5) which are the highest in the Eastern European countries which also turned into high value added growth rates in this sector (see Figure 2 above).

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

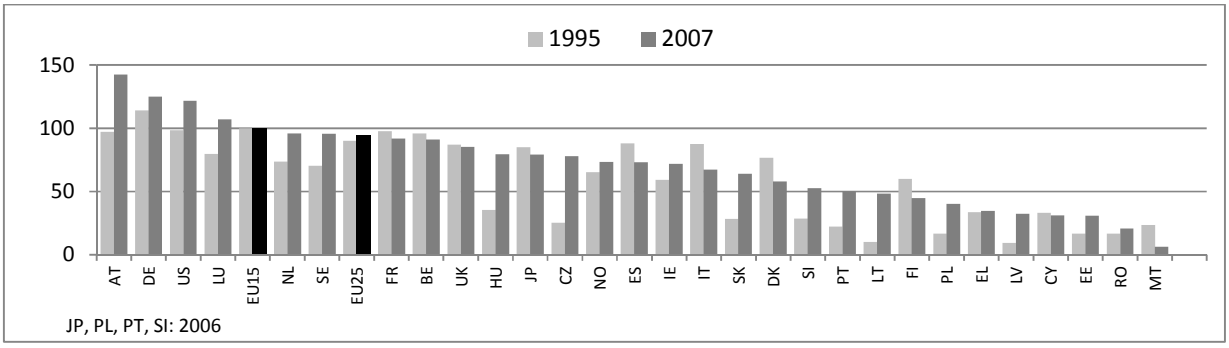
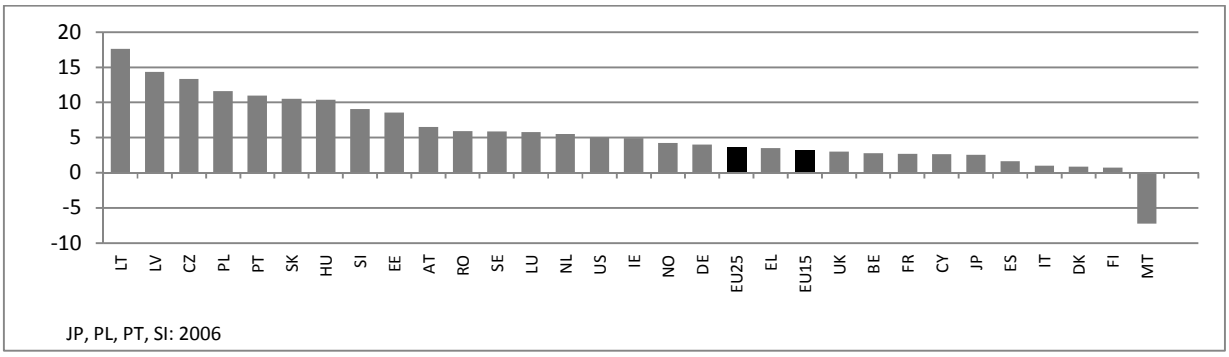


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

Both value added and productivity is then reflected in the performance with respect to employment which is considered now. The countries with the highest shares of employment in this sector in overall employment are the Czech Republic, Germany, Sweden, Slovak Republic and Japan showing shares ranging from 2.5 to slightly less than 2%, respectively. The corresponding share for the EU25 is at about 1.5%. In the other countries these shares are either in the range of this average or go well below 1% in some cases. With respect to changes one can see an increase in the share mostly in the countries which already started from larger shares whereas in most other countries these are decreasing which again points towards the ongoing regional concentration process. In terms of growth rates only a few countries experienced significantly positive employment growth rates with more than 2% over this period. Amongst them there is a number of countries also showing high productivity growth rates, which thus was compensated by even larger value added growth. Almost half of the countries considered experienced however even negative rates and in some cases these have been significantly negative (Denmark, Malta, Latvia and Mazedonia).

Figure 6: Share in total employment, 1995, 2007

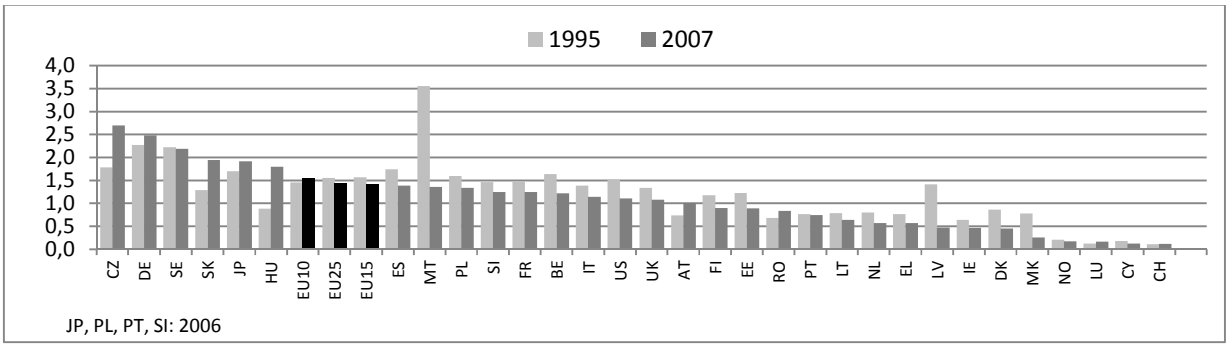


Figure 7: Employment, growth rates, annual average 1995-2007

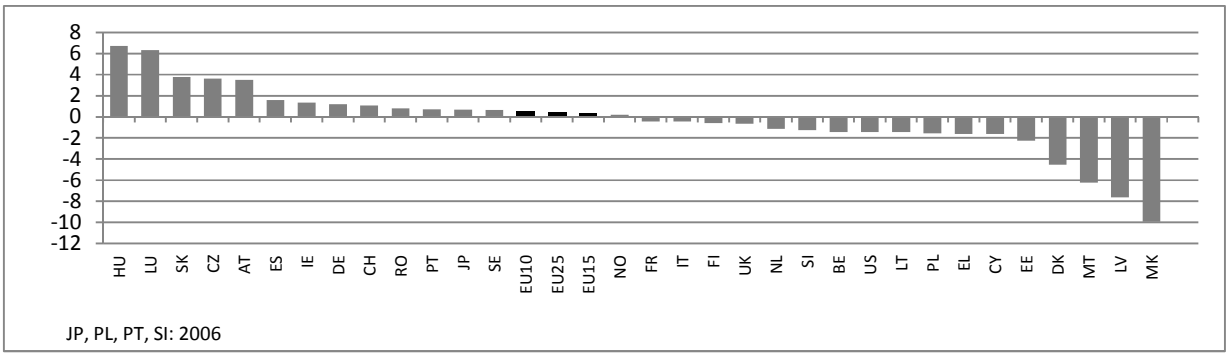
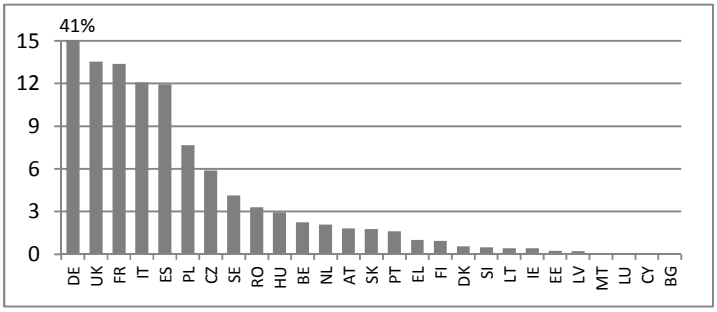


Figure 8: Employment, share of EU countries in EU27, 2007

Similarly to the shares in the country shares of value added in total EU27, the shares with respect to employment are again dominated by Germany which accounts for about 40% of employment in the EU27 in this sector. This is followed by the other countries UK, France, Italy, and Spain accounting for about 12%. The other countries do not account for more than about 5% (with the exceptions of Poland and Czech Republic).



Skill formation and ICT capital

The share of medium educated workers in total employment is at about 50% for the EU15 with some countries showing much larger shares which however to some extent reflects also the structure of the supply side. Particularly, the Eastern European countries show relatively high shares of medium educated due the overall structure of labour supply by educational attainment categories. With respect to high educated labour shares are at about 20% (for EU15) again with large country differences. These shares have been rising in most countries over the period considered though in some cases methodological changes might have played a role.

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

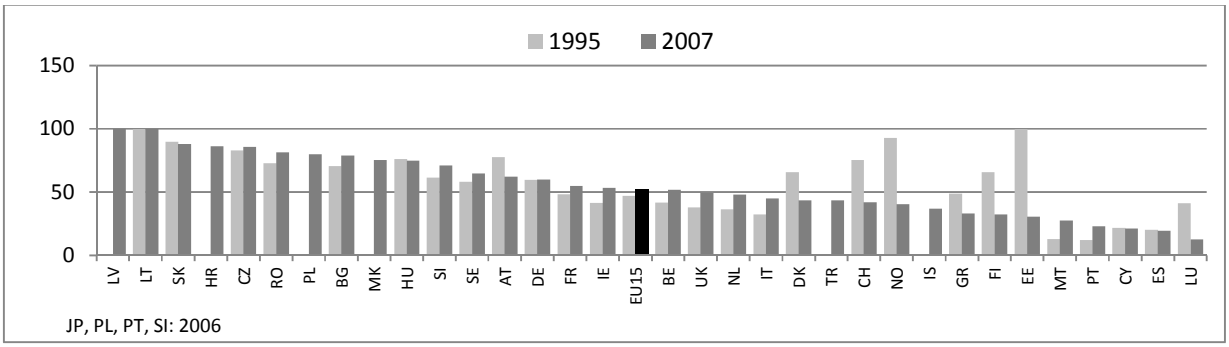


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

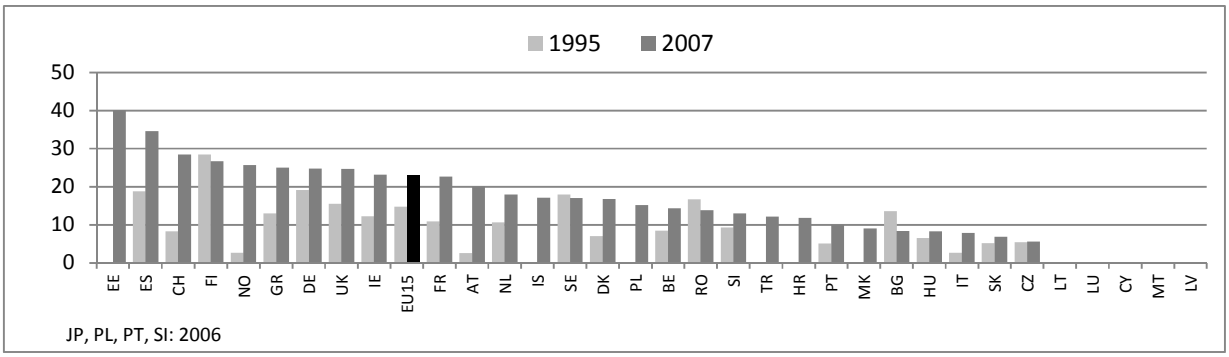
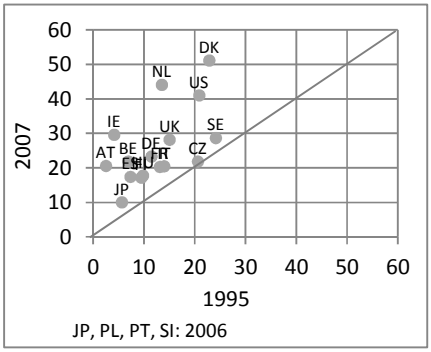


Figure 11: ICT capital stock, share in total capital stock in sector, in %

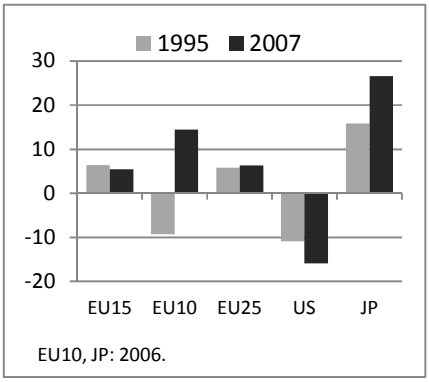
Regarding ICT capital the most striking fact is that the share of this in total capital services was increasing in all countries by about 10 percentage points. However there are quite large country differences with shares in 2007 ranging from 10% to 50% which might however also reflect measuring problems (e.g. in the case of Japan). However as compared to the US most of the European countries perform worse; exceptions are Netherlands and Denmark.



Trade and international integration

Figure 12: Net trade, in % of gross output in sector

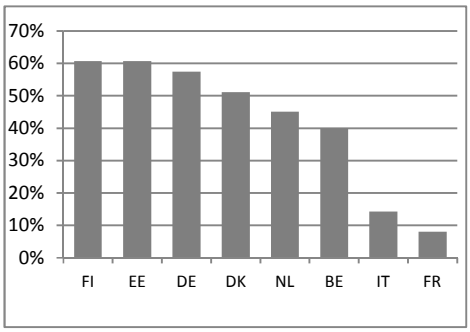
The EU25 shows a positive trade balance in this sector which is roughly stable at about 5% over the period considered. Particularly the EU10 countries performed quite well as these turned around from a 10% deficit to a almost 15% surplus which confirms the results with respect to value added growth above. However, one should note in this respect that this was mostly driven by FDI in these countries. Shares of foreign affiliates employment and value added are quite high (up to 90% in some cases) in the Eastern European



countries. Japan was doing even better in this respect whereas the US shows an increasing deficit.

Large companies

Figure 13: Concentration rates: Share of 5 largest f



tal employment, in %

Figure 13 presents the employment shares of the five largest firms in total employment for countries. In the Netherlands the five largest companies account for about 65% of total employment, while in Germany, Estonia, Finland and Slovenia their share in total employment is about 50% or above. In Denmark, Belgium and Bulgaria the share is between 30% and 40%, while in Hungary the share is slightly above 20%. Five countries report shares of the five largest firms in total employment of slightly more than 10%.

Restructuring of large companies

Restructuring has been relatively extensive in the motor vehicle industry over the past 10 years. The European Restructuring Monitor records jobs losses totally around 470,000 as a result of the restructuring of large companies since 2003, equivalent to around 3% a year of employment in the companies concerned. Restructuring has been more important in the EU15 than in the EU12, where the large car companies have created significant numbers of jobs as well as reducing them. Job losses from restructuring were especially important in the two years 2008 and 2009 in the EU15, when they averaged over 7% a year of employment in the companies concerned. They were also significant in the EU12 over this period, averaging around 5% of employment a year over the two years. The internal reorganisation of activities has been the main form of restructuring. Off-shoring, though minor in comparison, has been more important than in other sectors, accounting for around 5% of the total jobs lost from restructuring.

Sector Fiche

Construction (NACE F)

Value Added

Value added shares in the construction sector for EU15 and EU25 are at about 6% with a number of countries showing larger shares at least in 2007. Particularly, shares have gone up quite strongly in Spain, Iceland, Romania, Lithuania, and Ireland where they reached 10-12% mostly due to the construction boom in these countries. Other countries like Estonia, Latvia Greece, Slovak Republic, Finland and UK and also Japan also experienced an increase in the share of value added but not that strongly. In the other countries the shares remained roughly stable between 4 to 6%. This increase in shares is also reflected when looking at growth rates (Figure 2) which was quite high in some countries with 6-8% and even 12% in Latvia. The EU25 growth rate was at only 2% in this period. In only a few countries the growth rates in real terms have been negative, notably so in Japan and Czech Republic.

Figure 1: Share in total value added, 1995, 2007

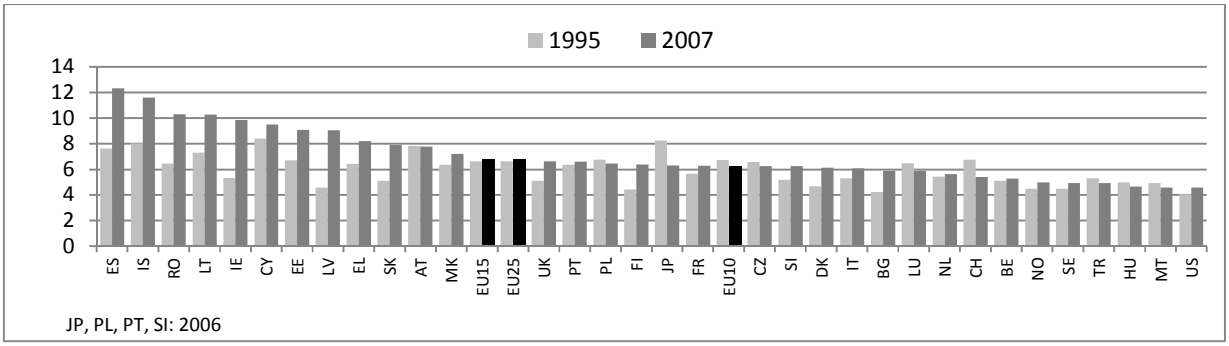


Figure 2: Value added, real growth rates, annual average 1995-2007

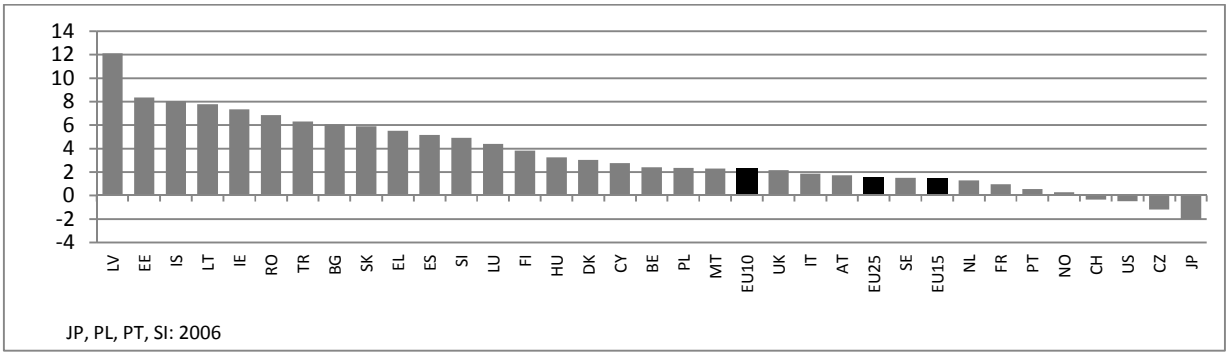
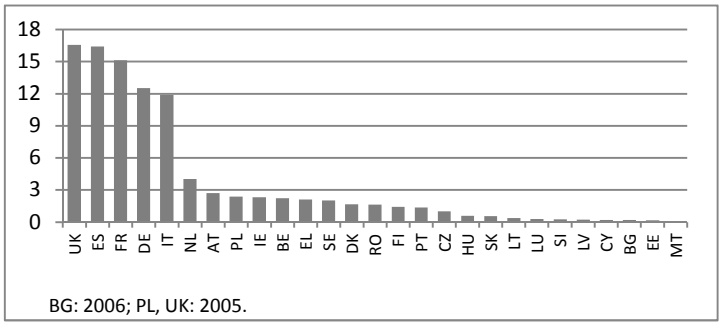


Figure 3: Value added, share of EU countries in EU27, 2007

The allocation of value added across European countries points out that some countries have quite large shares, i.e. UK and Spain with 17%, France with 15% and Germany and Italy with 13 and 12% respectively. All other countries show shares lower than 5%.



Productivity

Productivity levels at the upper end are relatively similar with only Belgium and Austria showing significantly larger levels in comparison with EU15. In some countries (Norway, Spain, Ireland and the US) productivity levels in relative terms even went down. The Eastern European countries together with Portugal show productivity levels of less than 50% compared to the EU15 (an exception being Poland). In terms of growth rates about half of the countries showed positive though in some cases rather small positive growth rates with no specific country pattern emerging. In a few countries productivity growth was fairly high (Romania, Slovak Republic, and Poland). The other countries experienced negative growth rates which have been quite large in Norway and the US For the EU aggregates this pattern implies that growth rates for EU25 or EU15 are very close to zero.

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

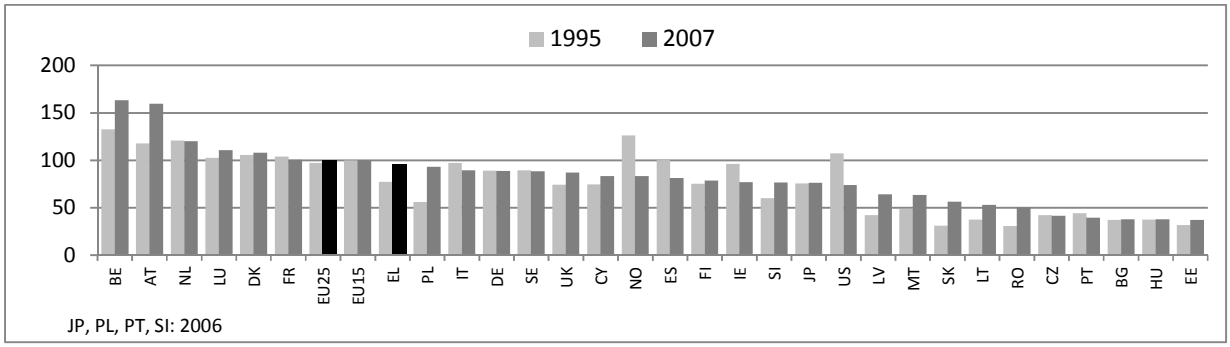
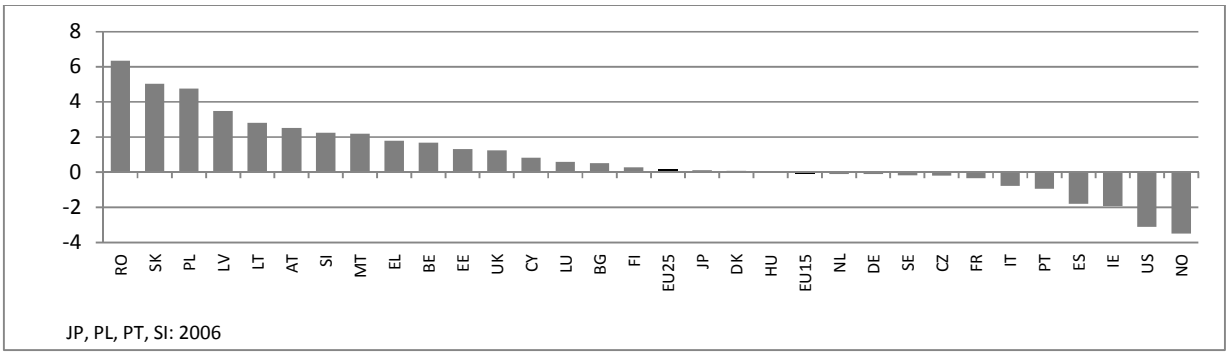


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

Employment shares in most cases exceed value added shares. For EU15 and EU25 the employment shares in 2007 are at almost 8% (compared to the value added shares of 6%). In Japan the share is slightly above 8% whereas in the US it is at 6%. Spain and Ireland in 2007 showed the highest shares with 13%, followed by the Baltics with 11% and similarly high shares for Luxembourg, Cyprus, and Portugal (10%). The lowest shares of about 6% are found in Sweden, Belgium, Netherlands and Germany. These shares have been rising in almost all countries since 1995 (with a few exceptions like Switzerland, Malta, and Austria). Particularly strong increases have taken place in the countries with the highest shares in 2007, i.e. Spain, Ireland, and the Baltics. I a number of countries shares have risen significantly but not that large as in the aforementioned countries.

These shifts in shares are also reflected in the growth rates which went up to almost 10% in Ireland and Bulgaria, and have also been quite high in Latvia (8%), Spain and Estonia (about 7%), and Lithuania with 5%. The growth rate of EU25 and EU15 was however only slightly less than 2%. The US reached a growth rate of slightly above 2%. Some countries experienced negative employment growth rates with Japan and Poland showing declines by -2%.

Figure 6: Share in total employment, 1995, 2007

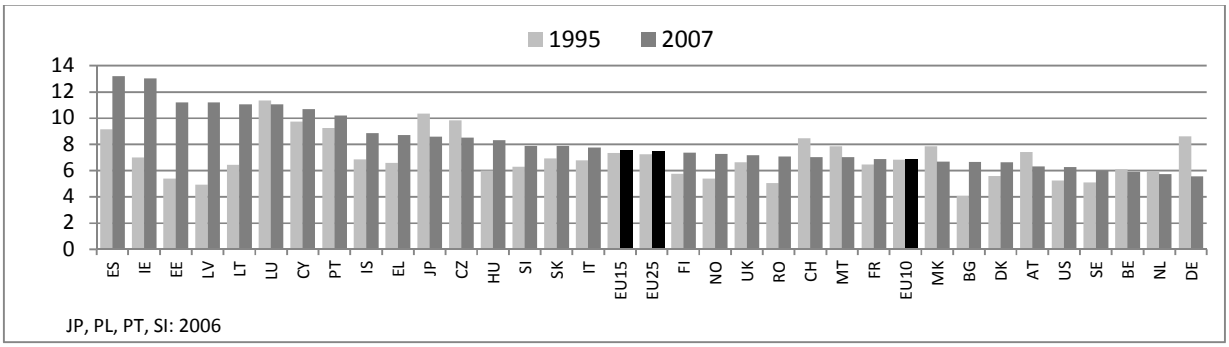


Figure 7: Employment, growth rates, annual average 1995-2007

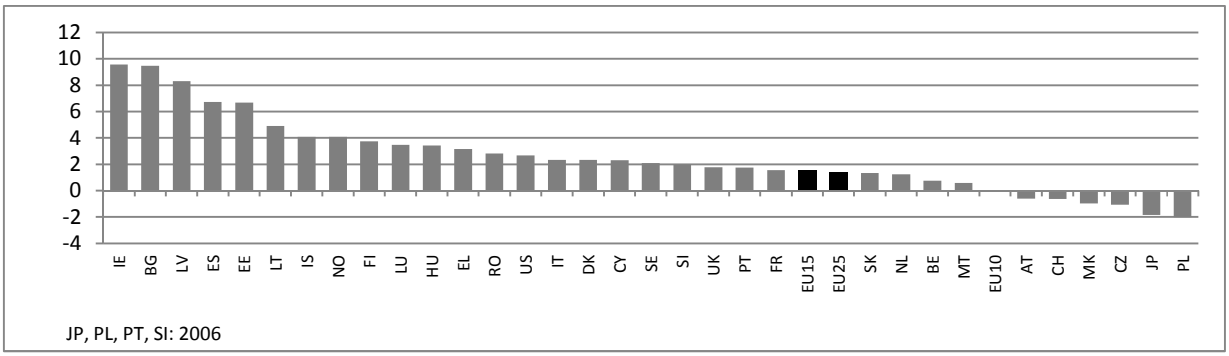
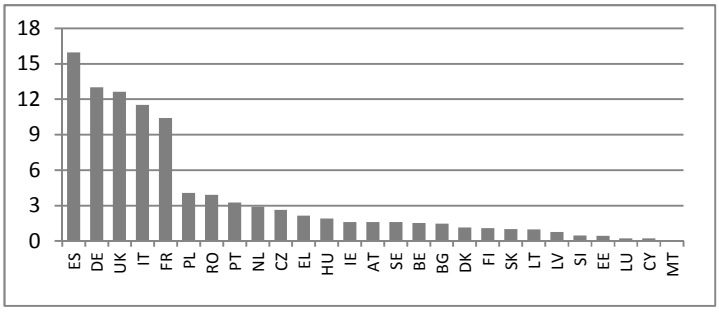


Figure 8: Employment, share of EU countries in EU27, 2007

The country shares of employment in the EU27 in 2007 show Spain at the top with 16%. This is followed by Germany (13%), UK (12%), Italy (11) and France 10%. Other countries have shares less than 5% with Poland, Romania, Portugal, Netherlands and Czech Republic having the relatively largest shares.



Skill formation and ICT capital

The share of medium educated workers in sector employment was at about 45% for the EU15 with a number of countries having larger shares up to 80% in Slovak Republic and Czech Republic. Some other countries, particularly Spain and Italy, however show much lower shares with only 30 and 20%, respectively. In the majority of countries shares have been increasing with significant shifts having occurred only in a few countries (e.g. Ireland, Cyprus, Italy, Spain). In a few countries the shares declined like in Austria, Latvia and Norway.

The share of high educated was at about 12% for EU15 and has increased by 2 percentage points since 1995. Germany, Lithuania and Estonia show the highest shares with 20, 19 and 17%. In some countries the shares are even below 5% like in Portugal, Malta and Italy. The shares increased in most countries over the period covered with significant declines taking place only in a few cases (the strong declines in Lithuania and Estonia probably being the result of methodological changes in the LFS).

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

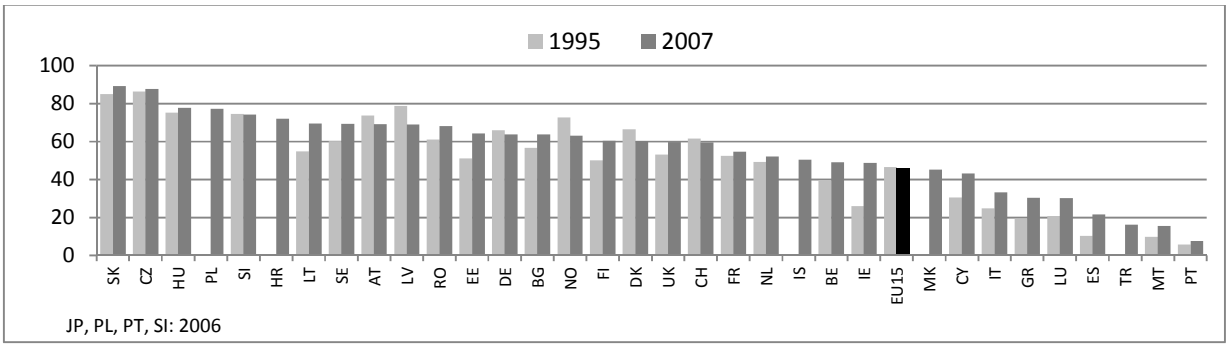


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

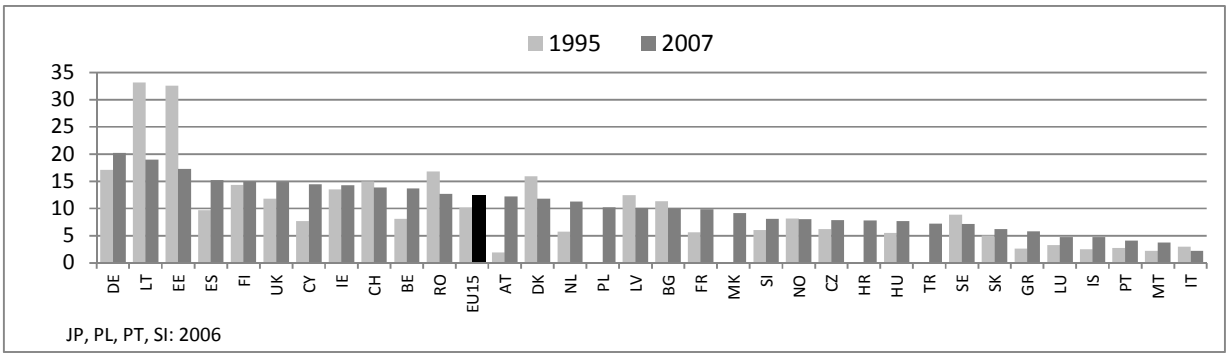
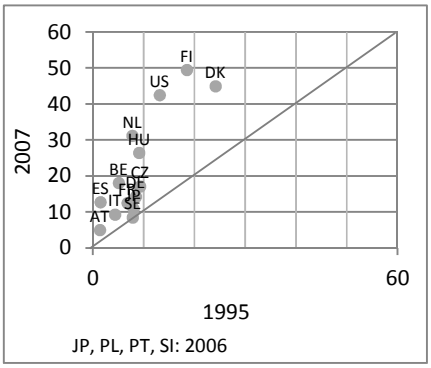


Figure 11: ICT capital stock, share in total capital stock in sector, in %

The share of ICT capital in the total capital increased in all countries and went up to 50% in Finland, 45% in the UK, and 40 % in the US. The bulk of countries however show shares of 15% on average in 2007. Shares in 1995 on average for this group of countries were at about 5%, therefore increased therefore by about 10 percentage points from 1995 on.

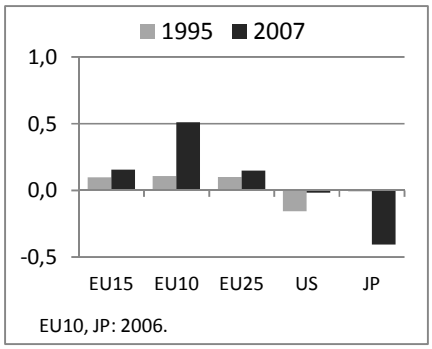


Trade

Figure 12: Net trade, in % of gross output in sector

Trade does not play a big role in this sector, thus the net trade ratios against gross output of quite small magnitude being slightly positive in case of the EU aggregates, and negative in case US and Japan.

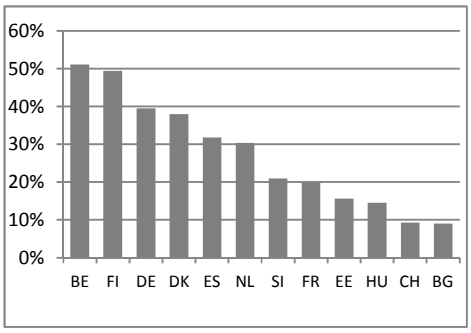
In this sector only a few countries report the shares of foreign affiliates' value added and employment. These are in neither case above 10% for employment and less than 5% for value added.



Large companies

Figure 13: Concentration rates: Share of 5 largest firms in total employment, in %

Figure 13 presents the employment shares of the five largest firms in total employment for countries. In Belgium and Finland the five largest companies account for about 50% of total employment, while in Germany and Denmark their share in total employment is close to 40% and in Spain and the Netherlands about 30%. Slovenia and France report a share of the five largest firms in total employment of about 20% and Estonia and Hungary of close to 15%. Only in Switzerland and Bulgaria the share is slightly below 10%.



Restructuring of large companies

Restructuring of large companies in constructions has been on a much smaller scale than in manufacturing. Since 2003, the European Restructuring Monitor records job losses of just over 50,000 as a result of restructuring, a very small number in relation to total employment in the companies concerned. While there was some increase in cases of restructuring during the recession years, 2008-2009, it was relatively small, mainly resulting from company bankruptcies or closure more generally. Such closures, of course, were much more important among small firms (those employing less than 250), though these are not recorded by the ERM.

Sector Fiche

Wholesale and retail trade, repair of motor vehicles and motorcycles (NACE G)

Value Added

Sector wholesale and retail trade, repair of motor vehicles and motorcycles is a rather large sector capturing about 11-12% on average with shares going up to 18% in the case of Latvia and Poland and Lithuania, Macedonia and Slovak Republic being higher than 15%. However, most of the larger countries show slightly lower shares at around 10% which is then also the case for the EU aggregates. There have not been too many significant changes over time, the share only increased in Latvia, Macedonia, Slovak Republic and Romania to a certain extent and declined significantly in Turkey, Malta and Italy. Real value added growth was positive in all countries with some countries experiencing quite high growth rates like of 8% or more (Latvia, Bulgaria, Estonia, Lithuania, Slovak Republic and Romania). The EU15 and EU25 average however is only at a rate of about 2% as some larger countries show only smaller growth rates. In the US the growth rate of real value added in this sector was at 5%. The growth rate in Japan was only slightly above zero.

Figure 1: Share in total value added, 1995, 2007

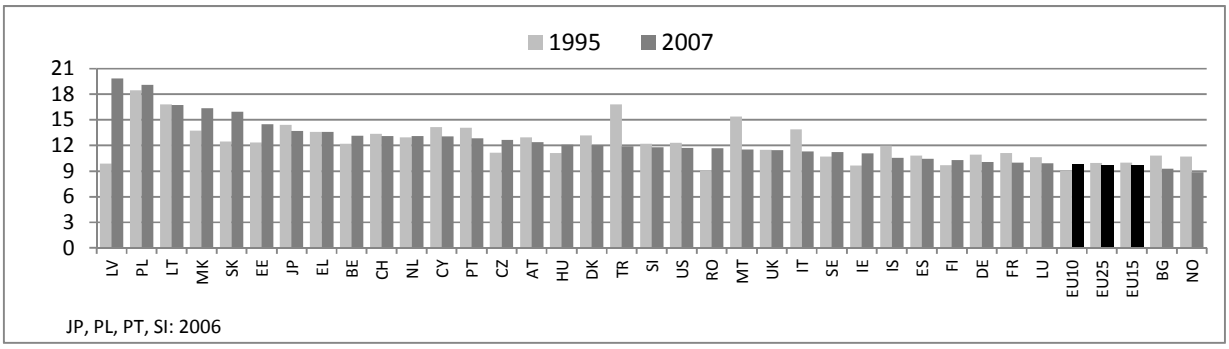


Figure 2: Value added, real growth rates, annual average 1995-2007

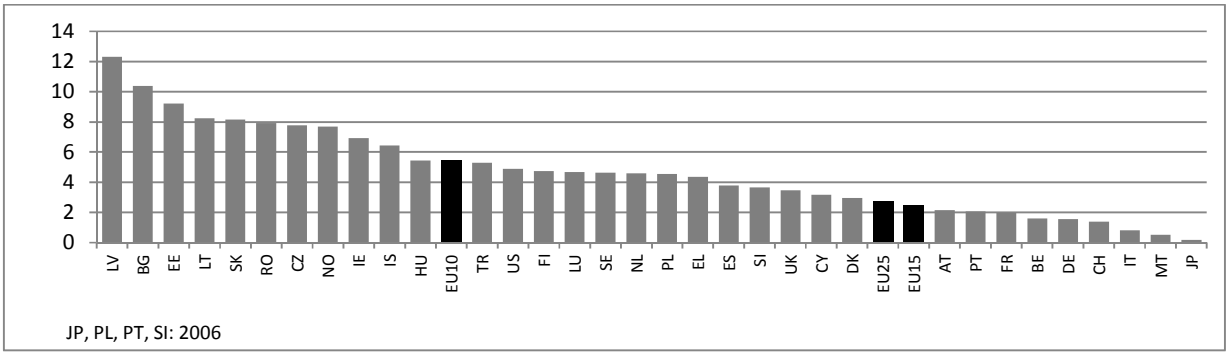
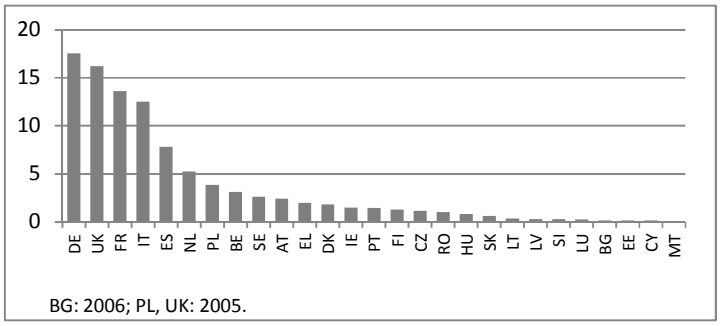


Figure 3: Value added, share of EU countries in EU27, 2007

Germany accounted for 17% in total employment in EU17, followed by UK (16%), France (13%) and Italy (12%). The share of Spain in 2007 was at 8% and Netherlands reached slightly above 5%. The shares of the other countries are below that level.



Productivity

Figure 4 presents the productivity levels compared to EU15 in 1995 and 2007. Norway, Belgium, Netherlands, and Luxembourg show productivity levels well above the EU15 benchmark, even outperforming the US where productivity level is about 50% higher. Productivity levels in Estonia, Romania, Slovak Republic and Portugal are less than 50% of the EU15. Some countries have been successful in catching-up to the EU15, notably Poland, Czech Republic, and Latvia. At the top some of the countries also improved their position like Sweden, Norway and the Netherlands. In terms of growth rates all countries with the exception of Malta experienced positive productivity growth rates which are quite high in Czech Republic, Romania, the Baltics and Norway. Productivity growth rates in the EU15 or EU25 have been at about 2%. The growth rate in the US reached 4% whereas those in Japan was at 2%.

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

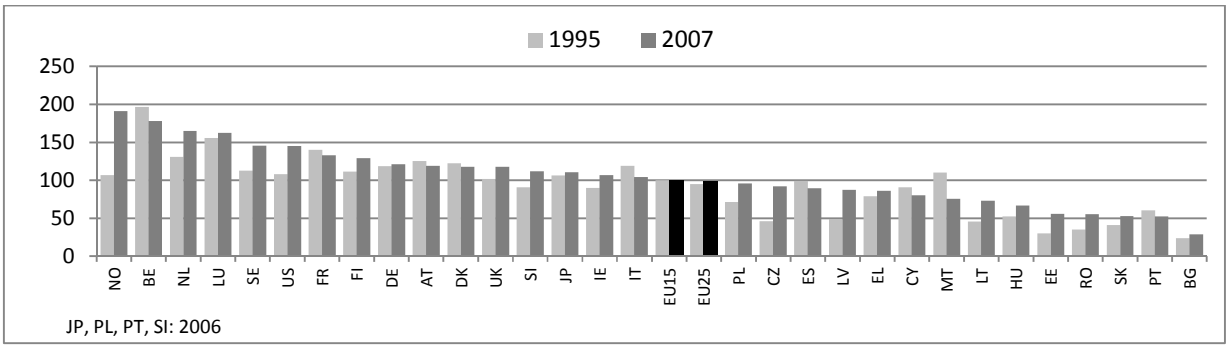
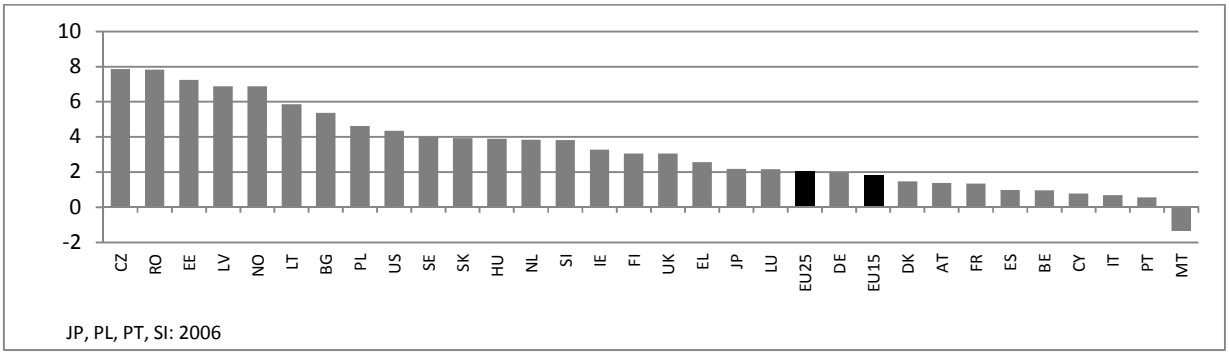


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

Employment shares are generally higher than value added shares and have been at a level of about 15% in the EU25 and EU15. There is only little variation across countries. The highest shares are reached in Slovak Republic, Cyprus, Portugal and Japan with about 17% or more; the smallest shares are observed in Sweden, Slovenia and Romania with only 12%. The shares have been significantly increasing in some countries, notably so in the Slovak Republic, Macedonia, Lithuania, Latvia and Estonia and Romania. In a few countries the shares declined though by 1-2 percentage points. Employment growth rates have been positive in this sector for all countries with the exception of Japan (-1%). The growth rate for the EU aggregates was slightly above 1%; employment in the US has grown at a rate of slightly below 1%. Some countries experienced much larger growth rates: the Slovak Republic, Bulgaria and Ireland with rates above 4%, and Latvia, Macedonia, Spain and Romania with rates above 3%.

Figure 6: Share in total employment, 1995, 2007

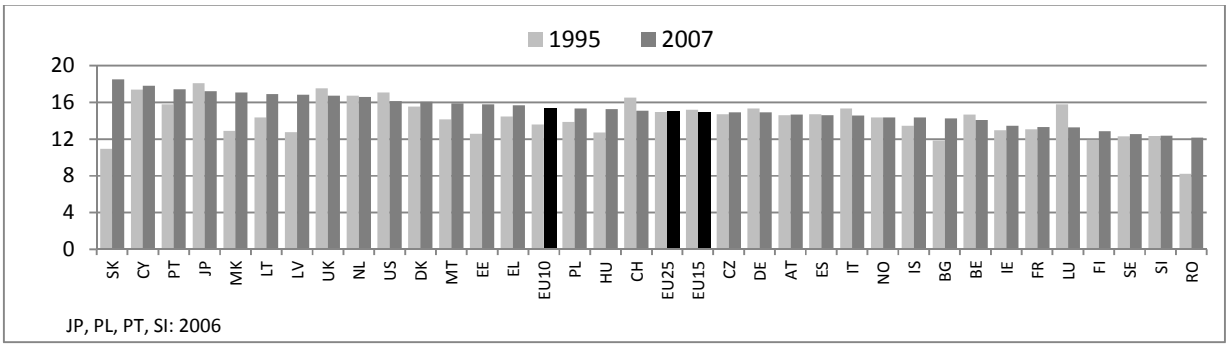


Figure 7: Employment, growth rates, annual average 1995-2007

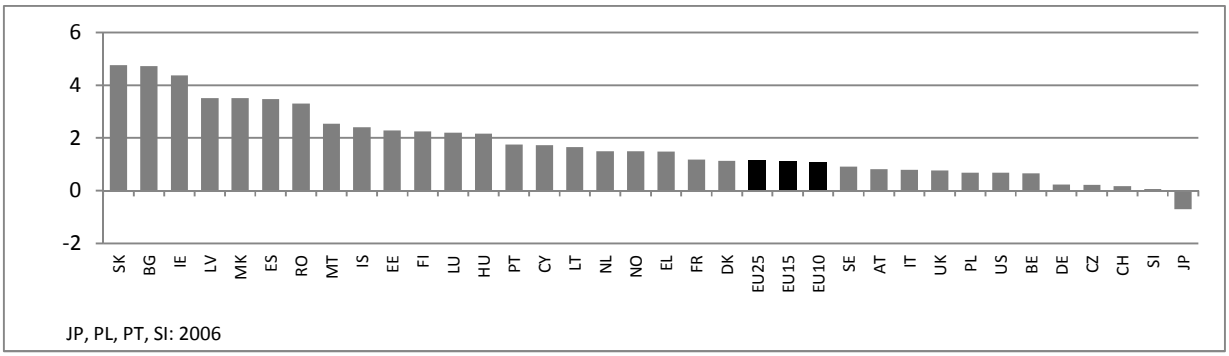
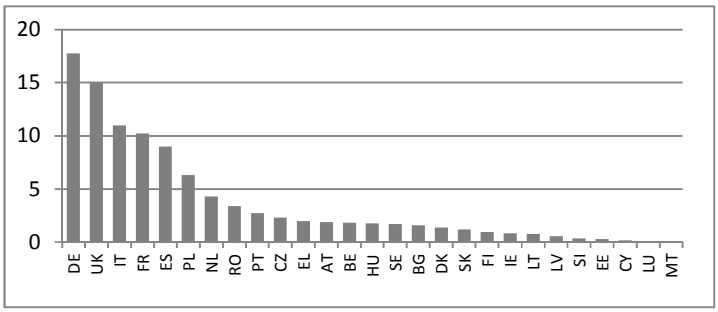


Figure 8: Employment, share of EU countries in EU27, 2007

Germany (18%), the UK (15%), Italy (11%) and France (10%) account for the largest shares in this sector in the EU27. Spain gets a share of 9%, followed by Poland with 7% with the remaining countries accounting for less than 5%.



Skill formation and ICT capital

The shares according to educational attainment categories are presented in Figure 9 and 10. For the EU15 the share of medium educated is at a level of about 50% with some countries having much larger shares up to more than 80% (reflecting also the supply side of these economies). The lowest shares are found for Spain (25%), Malta (10%) and Portugal (10%). There have been only few significant changes taking place with respect to these shares: Larger increases are seen in Lithuania, UK, Italy and Luxembourg and larger decreases in Denmark, Norway and Finland. The shares of high educated ranges from 30% in Estonia and Lithuania, to less than 10% in Austria, Slovak Republic, Turkey, Czech Republic, Portugal, Italy and Malta. The EU15 average is at a level of 13%. These shares in most cases increased, in a few cases significantly so (Finland, Spain, France, Slovenia, Austria).

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

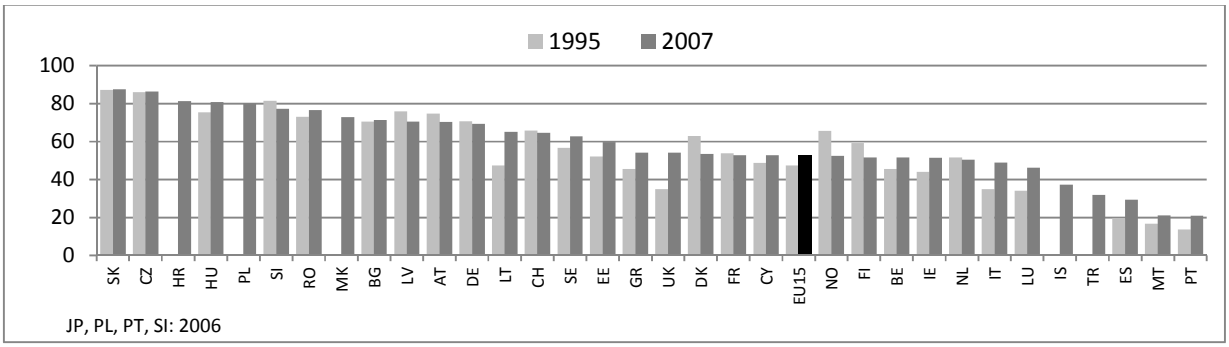


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

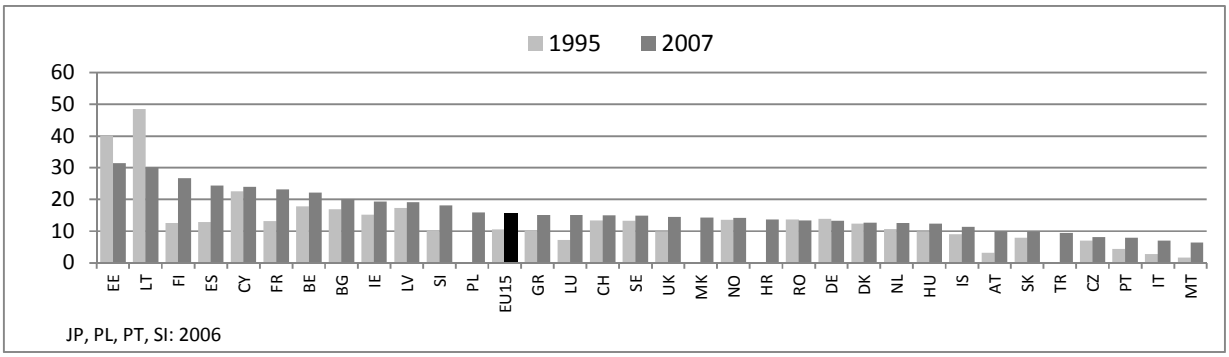
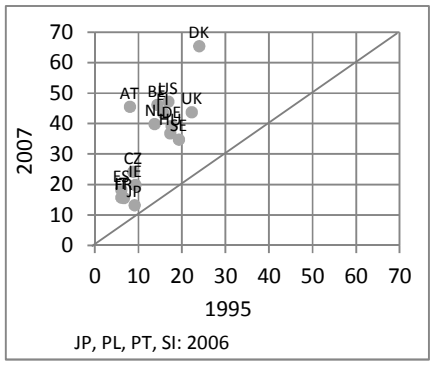


Figure 11: ICT capital stock, share in total capital stock in sector, in %

Also in this sector the share of ICT capital services has increased since 1995. On the top is Denmark with a share of 65%. The group of EU15 countries clusters at an average of 40-50% whereas the Eastern European countries show shares in a range of 10-30%.

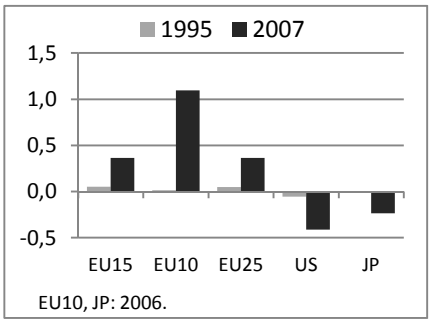


Trade and international integration

Figure 12: Net trade, in % of gross output in sector

Trade plays a minor role in this sector, however gained importance over the last decade. The EU aggregates show positive net trade to gross output ratios whereas the US and Japan report negative ones. The magnitudes in all cases are however small.

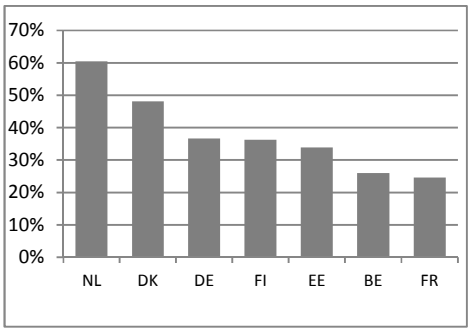
There is hardly any information on the share of foreign affiliates in employment or value added. The US reports a share of 8% in value added, and 5% in employment. Finland reports a share of 13 % in employment.



Large companies

Figure 13: Concentration rates: Share of 5 largest firms in total employment, in %

Figure 13 presents the employment shares of the five largest firms in total employment for countries. In the Netherlands the five largest companies account for about 60% of total employment, while in Denmark their share in total employment is close to 50%. In Germany, Finland and Estonia the share is at about 35%. Belgium and France report shares of the five largest firms in total employment of slightly more than 20%.



Restructuring of large companies

Restructuring of large companies in the distributive trades has been on a much smaller scale than in manufacturing. Since 2003, the European Restructuring Monitor records job losses in the sector o just over 210,000 across the EU, which is substantial but small in relation to total employment in the sector, or even to employment in large companies (estimated at close to 10 million). The extent of restructuring was much the same in the EU12 as in the EU15 and while cases of restructuring increased during the recession years, 2008-2009, doubling or more, the increase in the job losses was still small in comparison with the total employed. Restructuring has taken the form to a significant extent of bankruptcies or business closures, which have accounted for almost 45% of the job losses from restructuring since 2003.

Sector Fiche

Accommodation and food service activities (NACE I)

Value Added

This sector accommodation and food service activities is more dispersed across countries because of the importance of tourism in some countries. In the countries where tourism plays an important role the share of this sector goes up to 8% in Greece, 7% in Spain and Cyprus, 5.5% in Malta, 4.5% in Austria and Portugal and 4% in Italy. In all other countries the shares are below 3% in 2007. There have not too many changes over time taken place. Only the share in Greece went up by about 2 percentage points, and come down in Cyprus from 9 to 6.5% Also Malta shows a decline in the share. Shares have been slightly growing Austria, Portugal and Italy. In countries with shares less than 3% large increases took place in Bulgaria and Latvia, and larger decreases in Switzerland, Turkey, and the Czech Republic. In terms of growth rates one can see larger rates in some of the Eastern European countries together with Iceland. However, growth rate on average for the EU15 or EU25 has been at about 2.5%. Slightly negative growth rates are found in Japan, Switzerland, Denmark and more pronounced in the Czech Republic.

Figure 1: Share in total value added, 1995, 2007

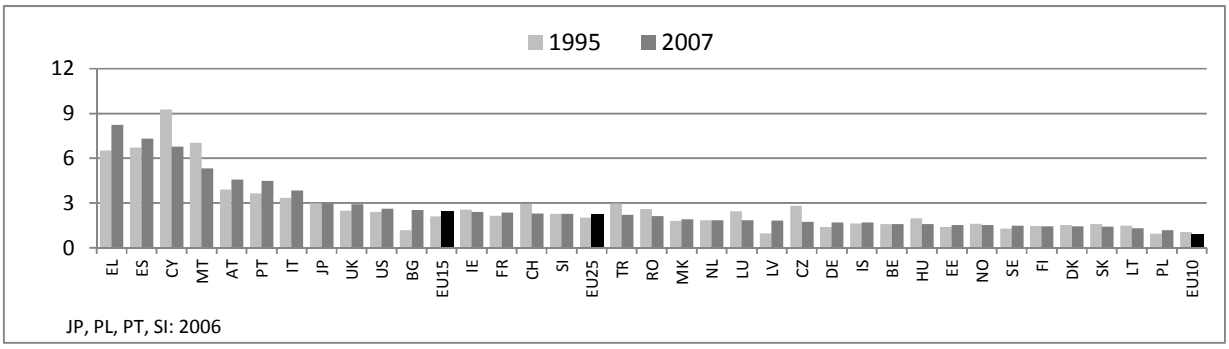


Figure 2: Value added, real growth rates, annual average 1995-2007

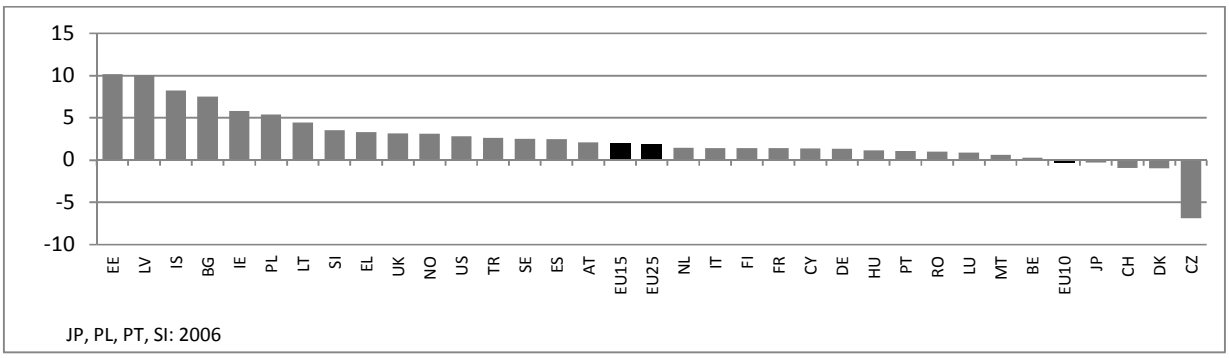
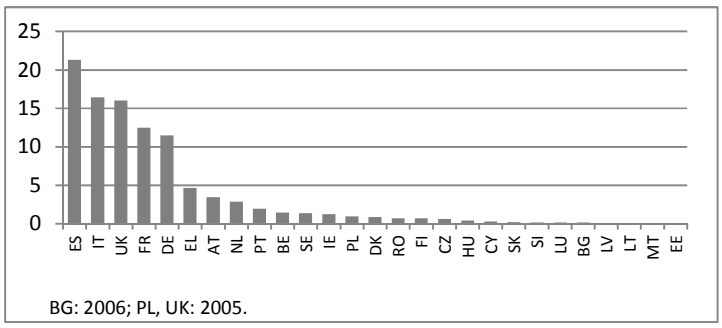


Figure 3: Value added, share of EU countries in EU27, 2007

With respect to value added shares across EU27 Spain gets the largest share with 22%, followed by Italy and the UK with 16%. France and Germany captures shares of 12 and 11%, respectively. The next countries are those where this sector plays a larger role, Greece (5%), Austria (4%), and Portugal 2.5%. Apart from Netherlands (3%) the shares for the other countries are about or less than 1%.



Productivity

Productivity measurement in this sector is particularly problematic. Using VA per hour worked relative to EU15 it turns out that some countries perform quite well (Spain, Belgium, Norway, Greece) and Austria, UK, Netherlands, Cyprus, and Italy to a certain extent. Lower relative productivity levels are found in the Eastern European countries, particularly in Estonia, Bulgaria, Hungary, Czech Republic and Slovak Republic. These levels increased in relative terms in some countries like Norway, Greece, Romania, Slovenia, Poland and Latvia. In a few cases these relative productivity levels also declined. Productivity growth rates range from 8% in Estonia and 6% in Latvia and Poland to negative rates in Denmark (-3%), Czech Republic (-7.5%) and Slovak Republic (-8%). Thus on average productivity growth was virtually zero for the EU15 or EU25 aggregate.

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

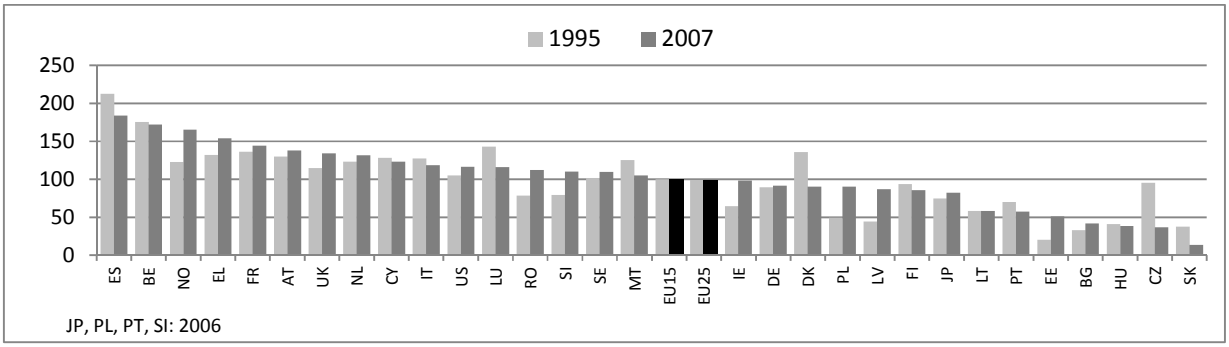
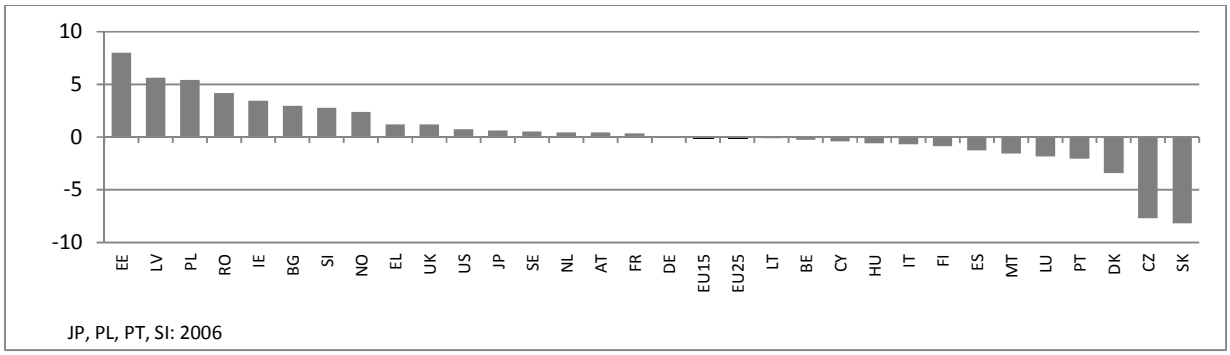


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

In terms of employment the shares not necessarily reflect those of value added. Employment shares have been quite high in Cyprus (10%), Malta (8%), US and Japan with about 7%. Employment shares for the tourism countries are at about 7% (Greece and Spain), and 6% in Austria and Portugal. In Ireland and UK these are at a similar rate. The average for the EU15 aggregate is at 5%. Most of the other countries show shares of less than 4%, down to a minimum in Poland with slightly less than 2%. These shares have been increasing in most cases though often to low extent only. In only a few cases these shares declined. Employment growth rates in this sector have been positive throughout all countries with Bulgaria, Spain, Lithuania, Latvia, Ireland, Portugal and Italy lying above the EU15 average of 2.7%. The lowest growth rates are found for Romania, Slovak Republic, Belgium and Japan with growth rates of less than 1%.

Figure 6: Share in total employment, 1995, 2007

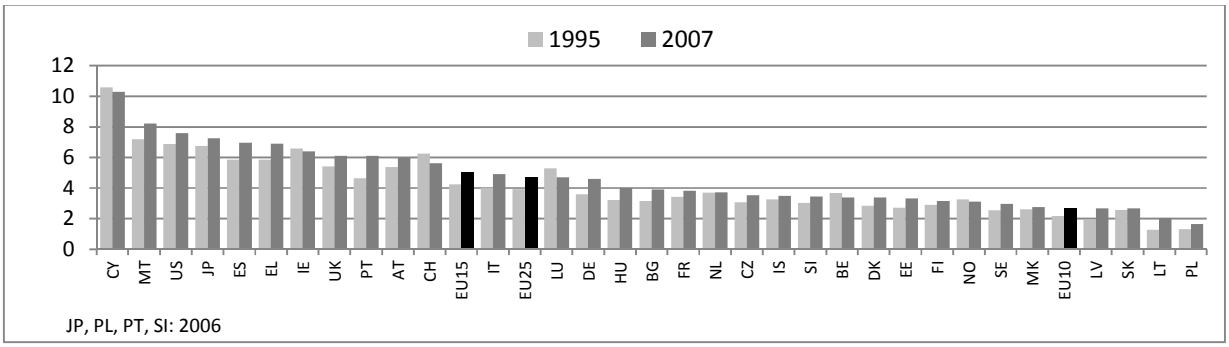


Figure 7: Employment, growth rates, annual average 1995-2007

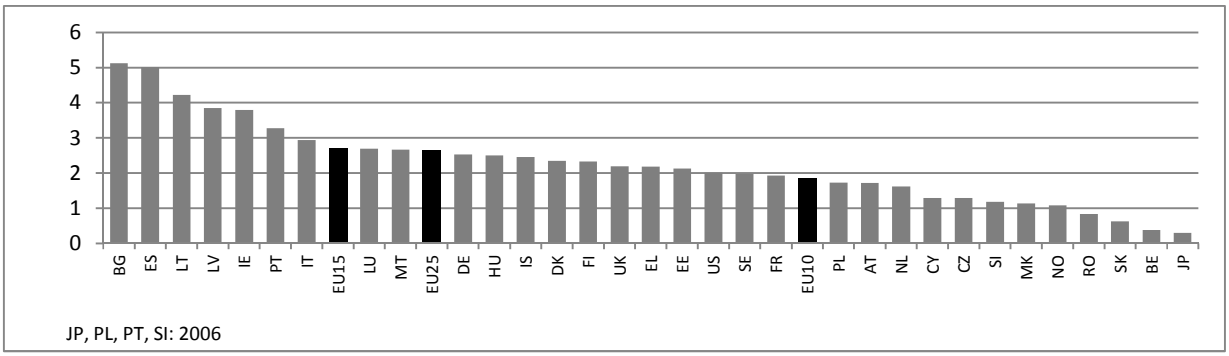
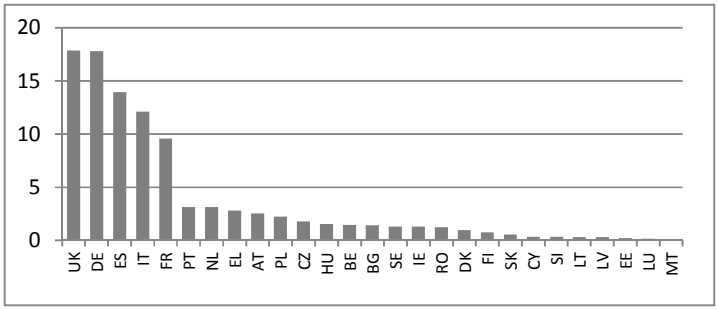


Figure 8: Employment, share of EU countries in EU27, 2007

Employment shares in the EU27 again differ from those in value added terms. UK and Germany capture 18%, Spain 14% and Italy 12% followed by France with 9.5%. All other countries capture employments shares of less than 4%.



Skill formation and ICT capital

The shares of medium educated workers for the EU15 is about 45%, with shares ranging from more than 90% in Czech Republic and Slovak Republic to about 20% in Spain, Malta, Turkey and Portugal. In a few cases there have been significant increases in these shares, examples being Lithuania, Estonia, Luxembourg, UK, Greece and Italy. In Norway and Denmark the shares declined significantly. The share of high educated in the EU15 is at about 10% and was slightly increasing from 8%. In a few countries these shares are higher, like in Ireland (25%), Cyprus (22%), Lithuania (20%) and Estonia (18%). In some of the countries these shares are quite low with less than 5% (e.g. Malta, Portugal, Czech Republic, Slovak Republic, and Italy).

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

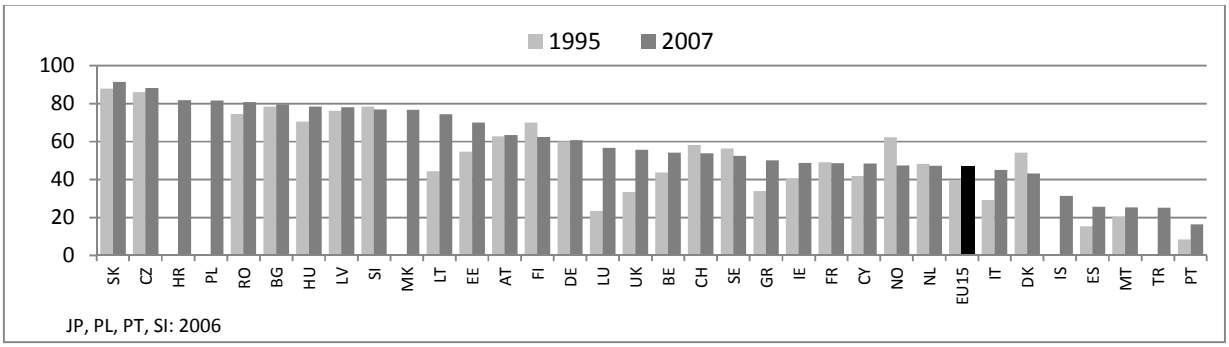


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

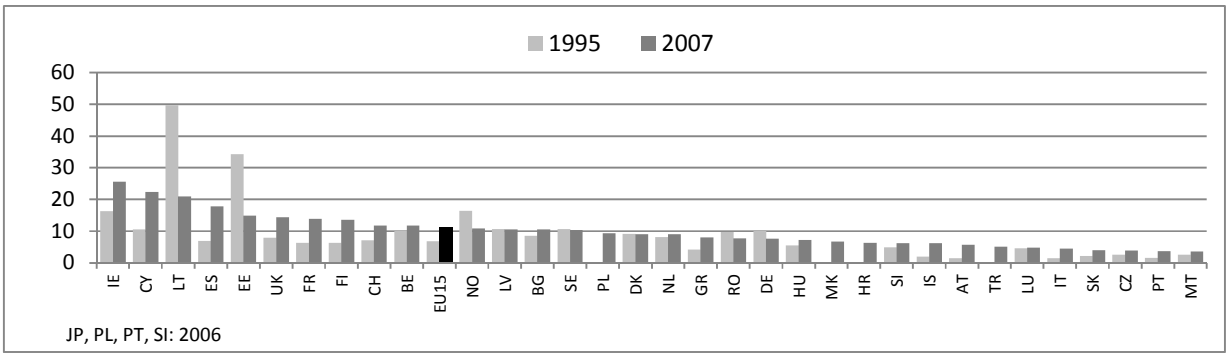
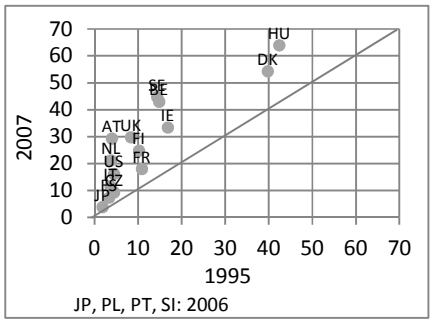


Figure 11: ICT capital stock, share in total capital stock in sector, in %

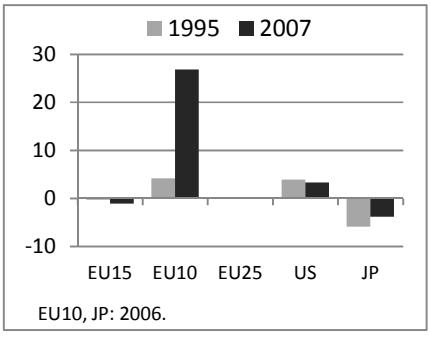
ICT shares have been increasing since 1995 in all countries considered and now in a range of 10-30% for most countries with some countries showing much higher shares (e.g. Ireland, Sweden). In some countries the data report shares of more than 50%.



Trade and international integration

Figure 12: Net trade, in % of gross output in sector

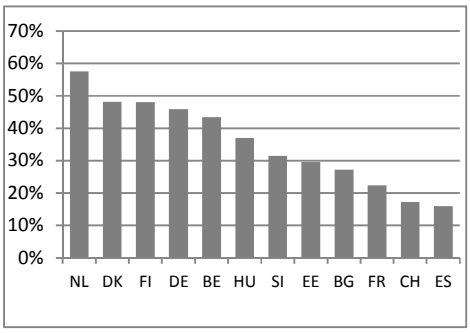
Trade plays a relatively larger role in this sector as compared to other services sectors. For the EU15, however, trade is rather balanced, whereas the ratio to gross output is relatively large for EU10 countries. The US shows a slight surplus of about 4% in terms of gross output whereas Japan shows a slight deficit with about 3%.



Large companies

Figure 13 presents the employment shares of the five largest firms in total employment for countries. In the Netherlands the five largest companies account for almost 60% of total employment. In Denmark, Finland, Germany and Belgium the share ranges between 40% and 50% and at about 35% in Hungary. Slovenia and Estonia report shares of about 30%, while Bulgaria of about 25%. In France the share is close to 20%, while in Switzerland and Spain the five largest firms comprise a share in total employment of about 15%.

Figure 13: Concentration rates: Share of 5 largest firms in total employment, in %



Restructuring of large companies

Restructuring of large companies is of minor importance in this sector. Since 2003, the European Restructuring Monitor has recorded under 15,000 job losses as a result of such restructuring across the EU and though there was an increase during the recession years of 2008 and 2009, it was relatively small. Internal reorganisation, or down-sizing of the work force, has been the main form of restructuring among large companies in the sector, but bankruptcies and closures have also been relatively significant, accounting for around 20% of the overall jobs losses from restructuring.

Sector Fiche

Financial and insurance activities (NACE K)

Value Added

The value added shares of financial and insurance activities in total value added are particularly high for Luxembourg with almost 28% in 2007 and Switzerland with 13%. Ireland shows a share of 10% and the US of 8%. Similarly, the share in Iceland, Cyprus and UK is also at about 8%. The share for EU25 or EU15 is at about 6%. Lithuania, Turkey, Finland and Romania have shares less than 4%. These shares have been strongly increasing in Luxembourg and Switzerland and less so in Ireland, US, Iceland, Cyprus and the UK. There is however no clear pattern of change across the other countries. In terms of growth rates of real value added it is important to mention that this sector was growing in all countries with the exception of the Slovak Republic (-5%) and Germany and Finland with zero growth rates. The growth rate in Japan was only slightly positive. The EU15 growth rate is at about 4% which was slightly below the growth rate in the US (4.5%), whereas the growth rate in the EU10 is 8%. Growth rates have been particularly high in Bulgaria (24%), Turkey (15%), Iceland (13%), Poland (12%) and Estonia (10.5%).

Figure 1: Share in total value added, 1995, 2007

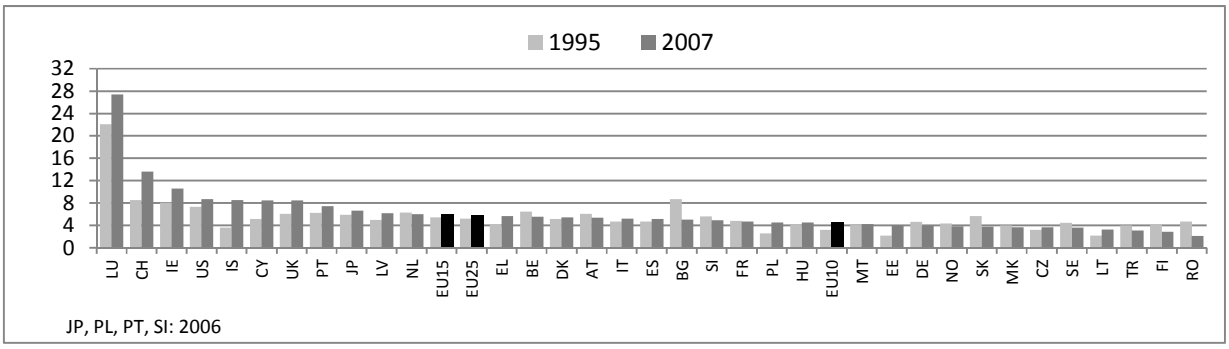


Figure 2: Value added, real growth rates, annual average 1995-2007

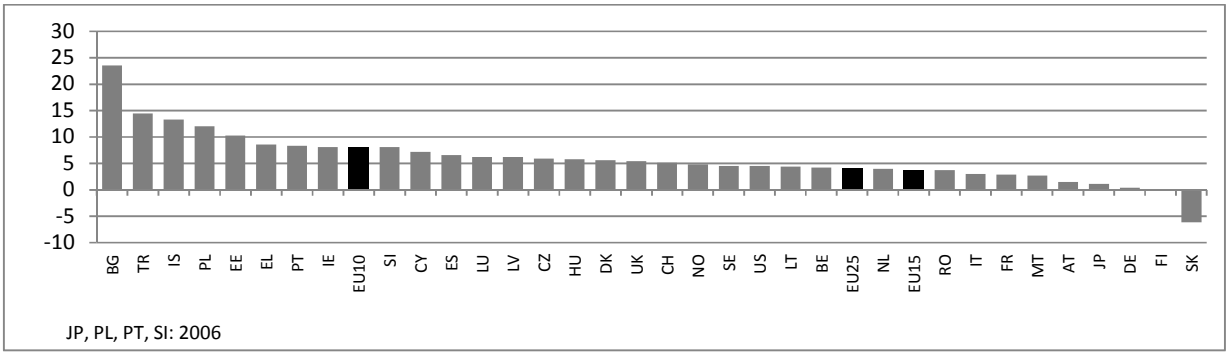
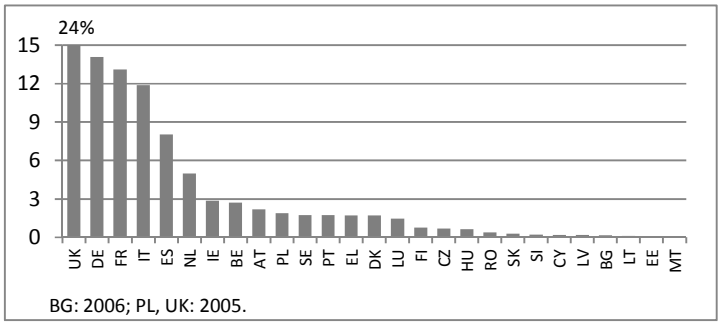


Figure 3: Value added, share of EU countries in EU27, 2007

The UK holds the highest share in this sector across the EU27 with almost 25%, followed by Germany with 14%, France with 13% and Italy with 12%. Spain gets a share of 8% and Netherlands of 5%. The remaining countries counter each for less than 5%.



Productivity

Productivity measurement in this sector is quite problematic, but rose according to the available figures particularly strong in the cohesion countries of the EU. Using VA per hour worked relative to EU15 it turns out that some countries perform quite well (Luxembourg, Portugal, Spain, Norway, Belgium, Bulgaria and Ireland) or at least above the EU15 average (see Figure 4). Lower relative productivity levels between 90% and 65% of the EU15 average are found in Austria, Cyprus, Poland, the UK, Hungary and Germany. Particularly low is the level in Slovakia and Lithuania. The absolute levels increased quite strongly in Bulgaria (+24%), Poland and Portugal (+10%) and Estonia. In some countries like Greece, Hungary, Norway, the Czech Republic, Spain, Denmark, Slovenia, Belgium, Cyprus and the UK annual growth rate was at about 5%, in most of the other countries it ranged between 2% and 5%. In a few cases like Latvia, Finland, Luxembourg, Germany and Austria the productivity growth was only between 1% and 2%. Slovakia was the only country, where the absolute level of productivity declined, falling by about 7% per year on average between 1995 and 2007. Thus on average productivity growth was about 3.5% per year for the EU15 or EU25 aggregate, which was slightly above the annual average growth rate of the US (3%).

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

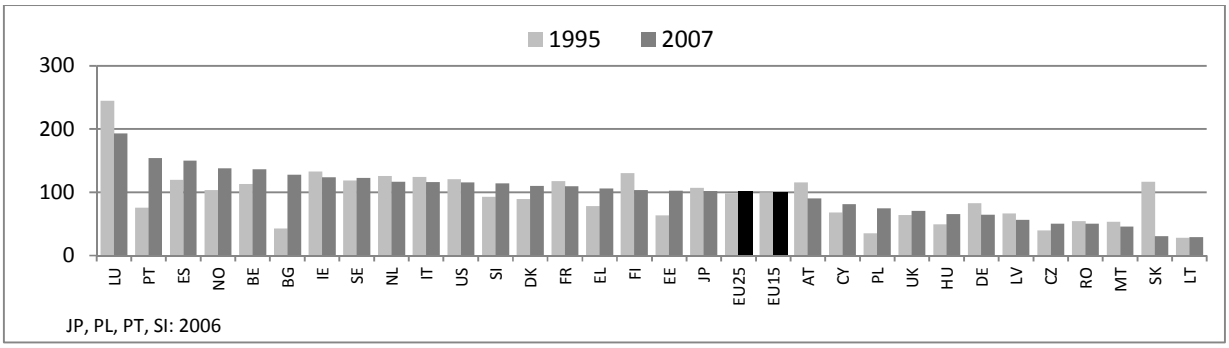
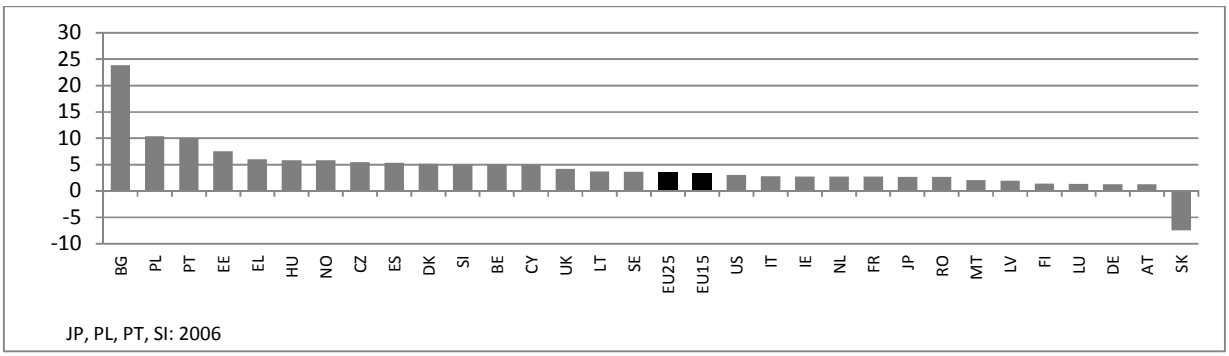


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

In line with the shares of value added, the share of employment in this sector is the highest for Luxembourg, with almost 12%, followed by Switzerland with 5%, which is also the share in some smaller countries Cyprus, Iceland, and Ireland. In the US and UK this sector accounts for about 4% which is a percentage point higher than the EU25 share of 3%. The share in the EU10 countries is lower at 2%. The lowest shares are seen in Bulgaria and Romania around 1.5%. Employment growth rates have been particularly high in smaller countries like Iceland, Ireland, Bulgaria, Latvia and in Luxembourg with about 5-6%. The growth rate for the EU25 has been only at 1% however, with the US performing slightly better with 1.5%. In some countries the growth rates were negative, Germany and Belgium with -0.5%, Norway and Portugal with about -1%, and Japan, Finland and Lithuania with -1.5 to -2%.

Figure 6: Share in total employment, 1995, 2007

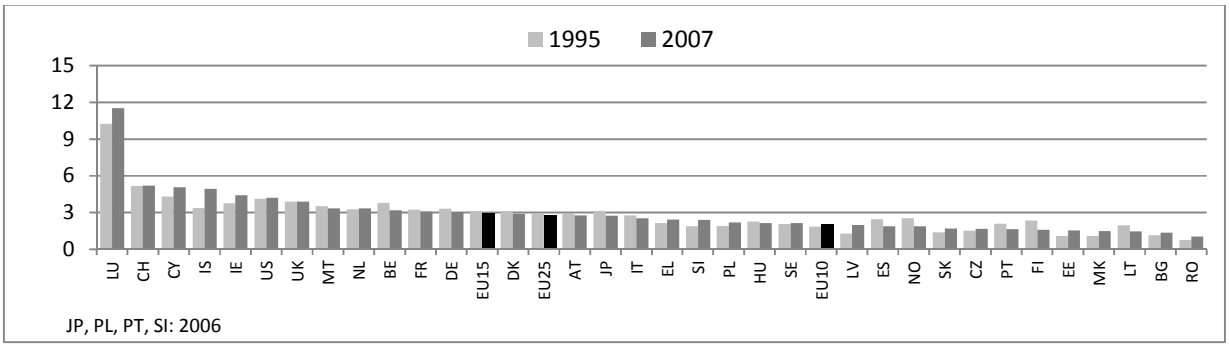


Figure 7: Employment, growth rates, annual average 1995-2007

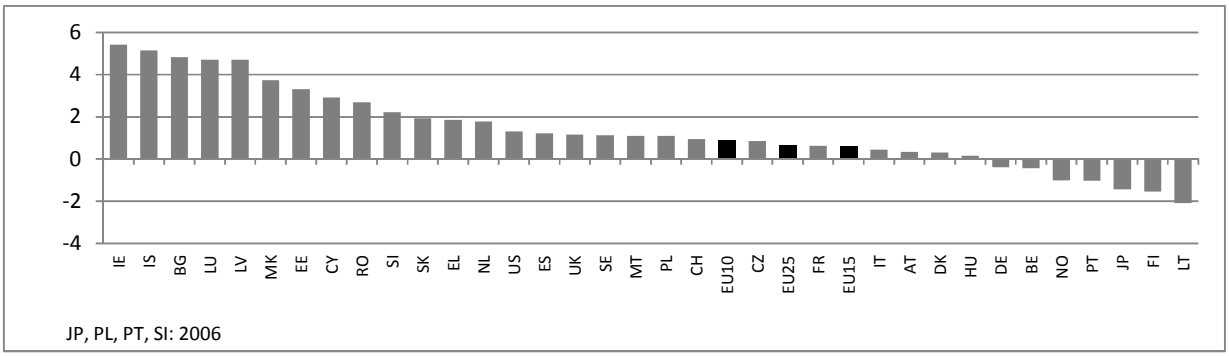
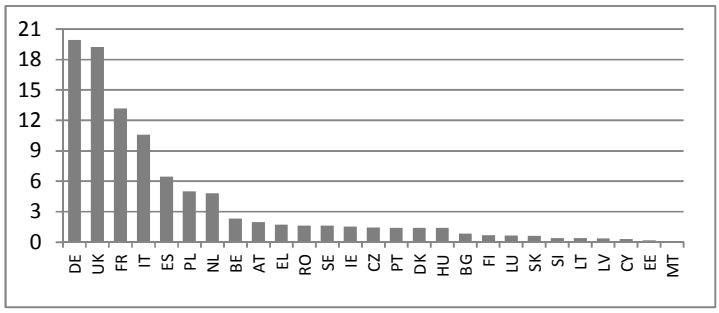


Figure 8: Employment, share of EU countries in EU27, 2007

Germany holds the highest share of employment in this sector across EU27 with 20%, followed by the UK with 19%, and France with 13%. Italy also has a share of slightly above 10%. Spain and Poland together with Netherlands account for 6% and 5%, respectively. All other countries account for less than 4%.



Skill formation and ICT capital

The share of medium educated in the EU15 is at about 55% with shares being significantly higher in Austria, Czech Republic, Germany, Italy and Croatia with shares higher than 60% up to almost 80%. Lowest shares are seen in Belgium, Iceland, Finland and Lithuania. These shares tended to decline in almost all countries with a few exceptions like Austria and Estonia. The share of the high educated is at 40% for the EU15 and is much higher in Lithuania, Bulgaria, Finland and Latvia. This share is however relatively small in Italy, Germany, and Austria with 15% or less. The share of high educated in this sector has been increasing in all countries and quite significantly so. For the EU15 the increase was about 15 percentage points since 1995 with similar increases or even higher in most (though not all) countries.

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

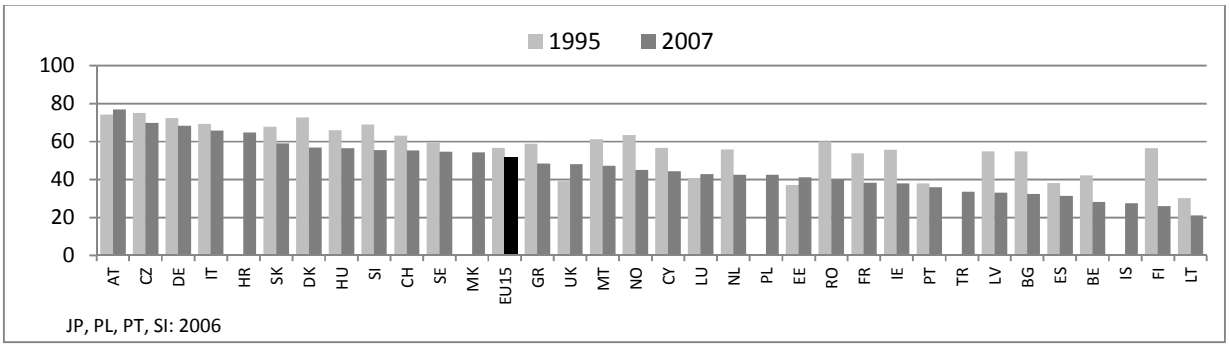


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

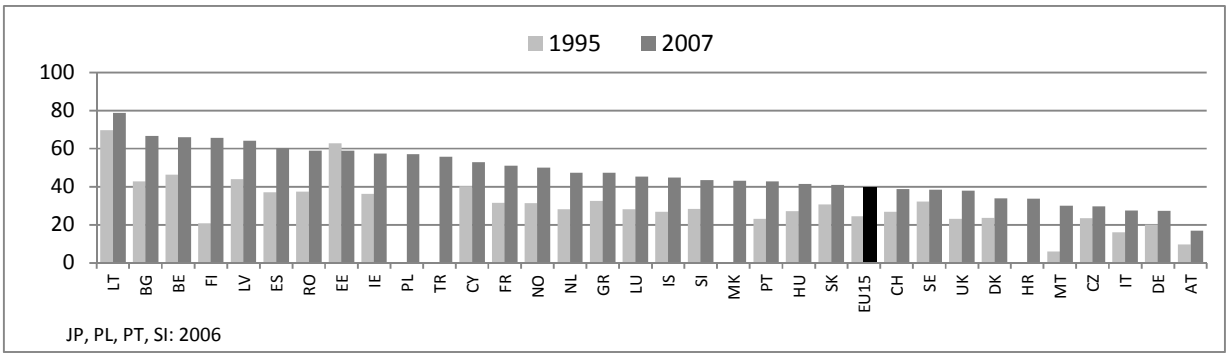
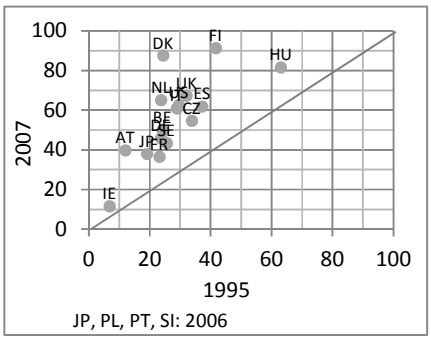


Figure 11: ICT capital stock, share in total capital stock in sector, in %

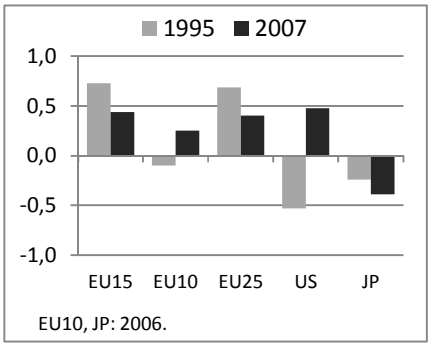
Shares of ICT capital has been increasing in all countries since 1995 and are on average now at a level of about 60% with the range being quite large. In some countries (Austria, Japan, France) the share is at about 40% whereas in countries like Denmark, Finland and Hungary shares are higher than 60%.



Trade and international integration

Figure 12: Net trade, in % of gross output in sector

Trade does not play a big role in this sector and thus the ratios of net trade to gross output are quite small (less than 1%). These are positive for the EU aggregates, became positive for the US and are negative for Japan. With respect to foreign affiliates' shares only a few countries report values. The employment share in Switzerland is 21%, in Finland almost 40%, and in the US 6%. With respect to value added only the US reports figures of 7%.



Restructuring of large companies

Restructuring by large companies has been relatively extensive in the sector over the past 10 years. According to the European Restructuring Monitor, it has been responsible for job losses totalling close to 550,000 since 2003, equivalent to a reduction in employment in the companies concerned of just over 2% a year. In the two years 2008 and 2009, this figure increased to around 5% a year, the increase occurring mainly in the EU15 countries. Restructuring, as in most other sectors, has taken the form mainly of internal reorganisation of activities, but mergers have also been a significant source of jobs losses, accounting for around 15% of the total from restructuring since 2003, while offshoring has also been more important than in other sectors, accounting for almost 5% of the total losses from restructuring in the sector (or around 25,000 jobs). This has taken the form largely of the relocation of back office functions, though also of call centres.

Sector Fiche

Real estate activities; Professional, scientific, technical, administration and support service activities (NACE LMN)

Value Added

Value added share of the business services sector (real estate activities; professional, scientific, technical, administration and support service activities) range from 28% in France and 25% in Germany to about 12% in Romania, Slovak Republic and Lithuania and only 4% in Macedonia. The EU15 share is at about 23%, the share for EU25 is at 22% as the shares of this sector in the EU10 is somewhat smaller (20%). Also in the US this sector accounts for 24% whereas in Japan only for slightly less than 20%. The shares of this sector were increasing in all countries and significantly so in some countries. For example, in the EU15 the share was increasing from 20 to almost 24% since 1995. Growth rates were positive in all countries with very high rates in Turkey (14%), Latvia (11%) and Ireland (11%). The growth rate for the EU15 or EU25 aggregate was about 3% compared to 4% in the US and slightly above 2% in Japan. Lowest growth rates are observed in Italy, Greece, Portugal, Czech Republic and Switzerland.

Figure 1: Share in total value added, 1995, 2007

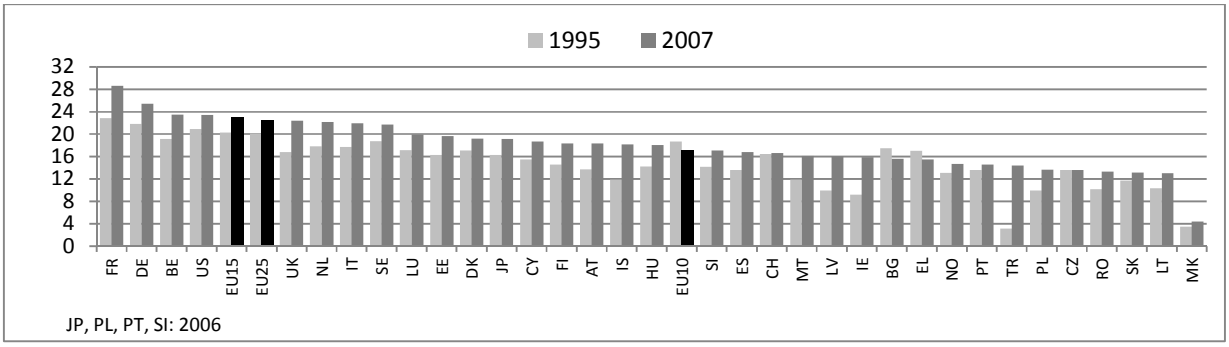


Figure 2: Value added, real growth rates, annual average 1995-2007

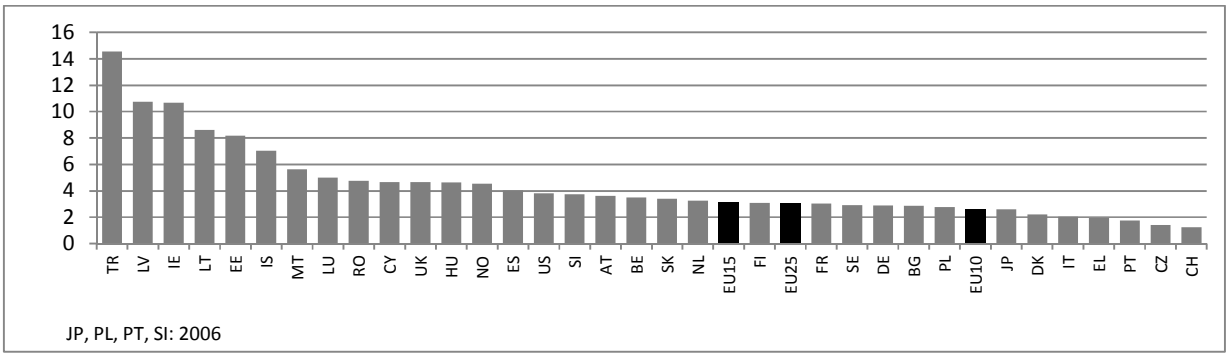
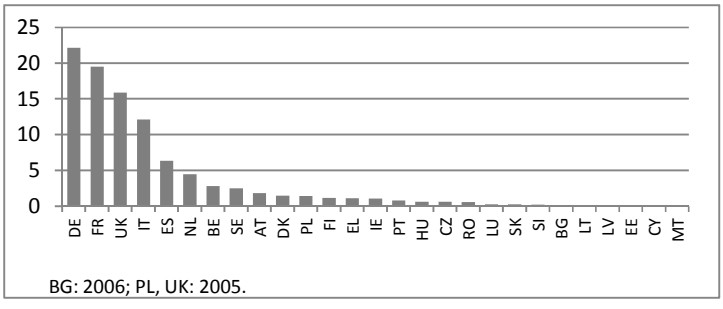


Figure 3: Value added, share of EU countries in EU27, 2007

Germany accounts for 22% of value added in the EU27, followed by France with 19% and UK with 16%. Italy accounts for 12% and Spain for 6%. Netherlands comes close to 5% with all other countries showing shares of less than 4%.



Productivity

Productivity levels relative to EU15 at the upper end are not too much dispersed with France, Germany and the US having higher levels (together with Cyprus). The lowest productivity levels are found for the Eastern European countries together with Portugal and UK. There is no clear evidence of a catching-up process across countries though some did relatively well. Productivity growth rates range from 6% in Estonia, followed by Latvia (4.5%), and Ireland (4%) to negative growth rates in Austria (-2%), Greece (-2.5%), Italy (-3%), Denmark (-3%) and Luxembourg (-4%). Productivity growth was also negative in the EU15 and EU25 aggregates with about -1% whereas it was +1% in the US and slightly positive in Japan.

Figure 4: Productivity (VA per hour worked), levels 1995, 2007, EU15=100

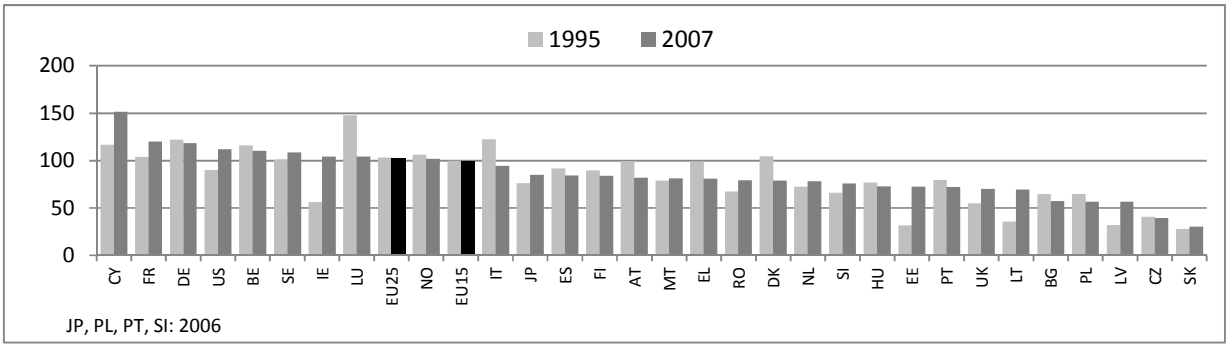
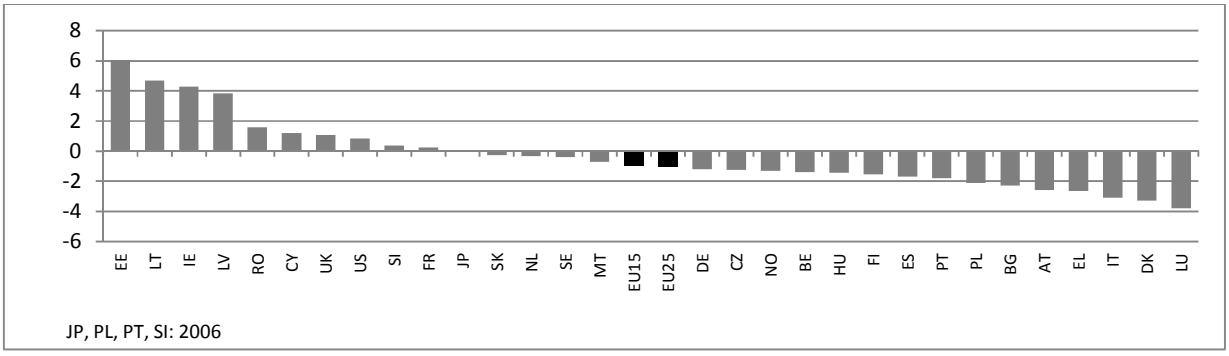


Figure 5: Productivity (VA per hour worked), growth, annual average 1995-2007



Employment

Employment shares of this sector range from 18% in the Netherlands and 16% in the UK, Belgium and Luxembourg to 5% in Bulgaria, Cyprus and Lithuania and 4% or less in Macedonia and Romania. The share for the EU15 is at 13% and the one for EU10 at 8%. As a comparison, the share in the US is at 15% and in Japan at 12%. Employment shares have been growing in all countries without any exception and strongly so in some countries. For example, the share in the EU15 increased from 9% to 13% already mentioned. A similar increase of 4 percentage points can be observed in the EU10 from about 4 to 8%. In line with these increasing shares the growth rates of employment in this sector has been positive in all countries with about 4% for the EU aggregates which is one percentage point higher compared to the US or Japan. In ten countries growth rates have been higher than 6%. The growth rate in Romania however was only at less than 1%.

Figure 6: Share in total employment, 1995, 2007

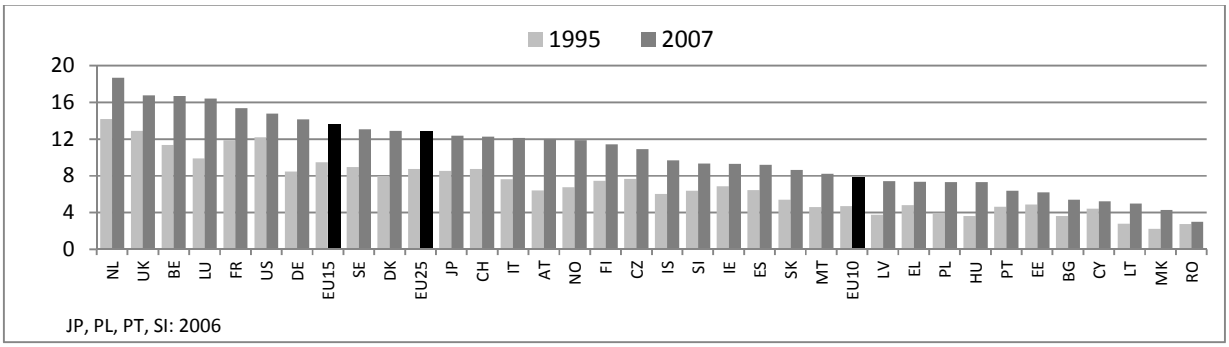


Figure 7: Employment, growth rates, annual average 1995-2007

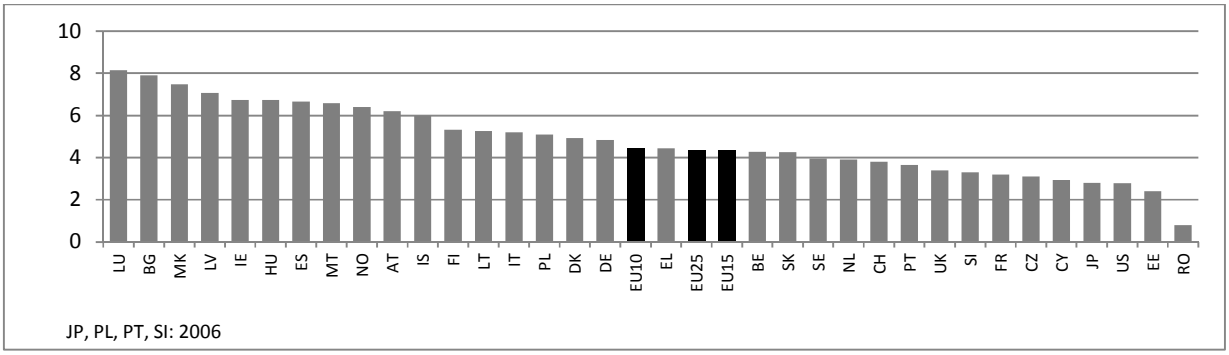
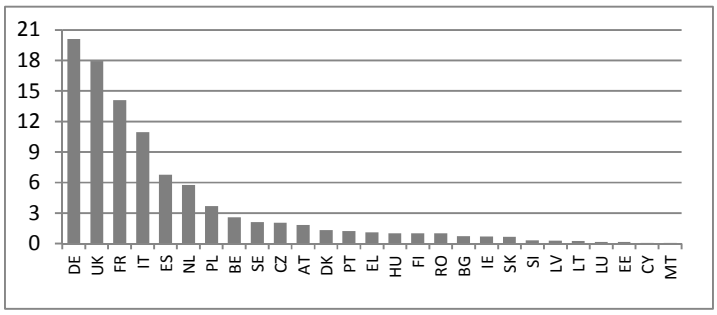


Figure 8: Employment, share of EU countries in EU27, 2007

Germany accounts for the largest part of employment in this sector across EU27 with 20%, followed by the UK with 17.5% and France with 14%. Also Italy reaches a share of 11% being followed by Spain with 6% and Netherlands with 5.5%. The other countries take account of less than 5% each.



Skill formation and ICT capital

The share of medium educated workers in the EU15 is at 40% with the range of shares going from above or almost 60% (Czech Republic, Slovak Republic, Austria, Latvia, and Croatia) to about 20% in Iceland, Malta and Spain. These shares were declining in most countries with a few exceptions like in Germany, Romania, Sweden, Estonia, UK and Lithuania. The share of high educated is at a level of 40% in case of EU15 with shares going up to 60% in Lithuania, Cyprus, Greece and Belgium and being at much lower levels in Italy, Turkey, Portugal and Austria with around 30%. These shares have been increasing in most countries with the exception of Lithuania, Bulgaria, Estonia, Romania, and Sweden.

Figure 9: Upper secondary (medium) educated, share in total employed, 1995, 2007, in %

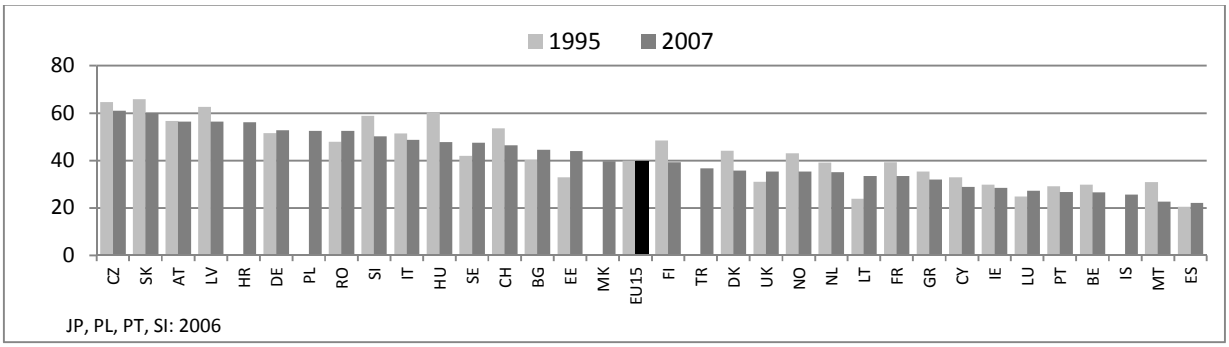


Figure 10: Tertiary (high) educated, share in total employed, 1995, 2007, in %

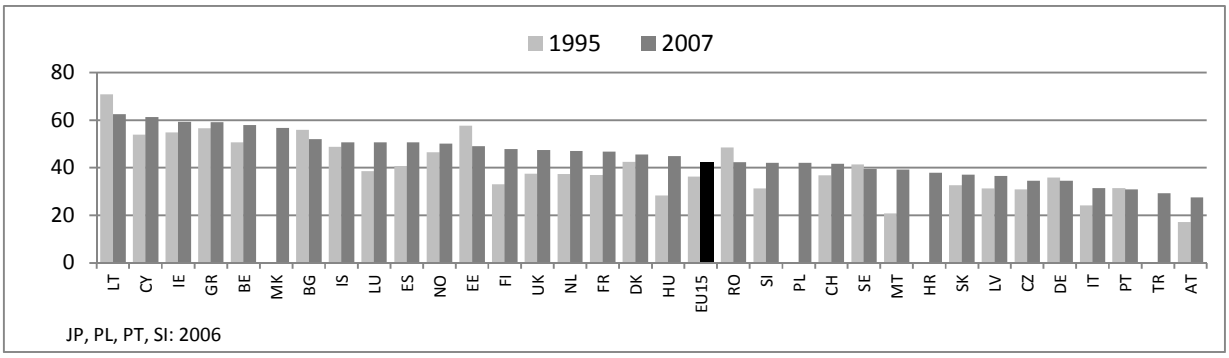
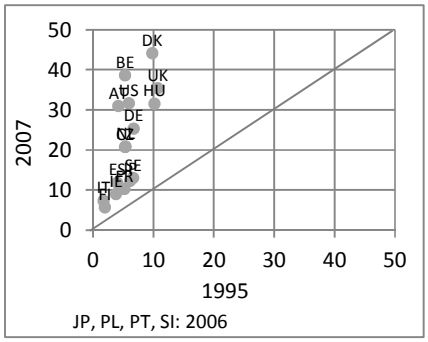


Figure 11: ICT capital stock, share in total capital stock in sector, in %

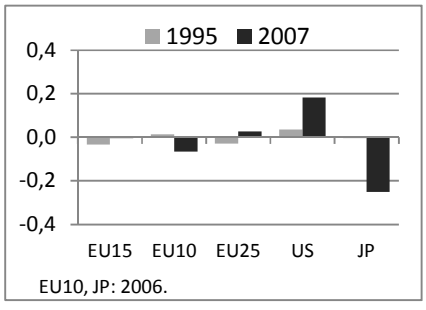
Also in this sector the shares of ICT capital have been increasing in all countries since 1995. However a quite large range is reported going from about 10% in Finland, Lithuania and Ireland to about 40% in Belgium and Denmark and 35% in the US , UK, Hungary and Austria. In 1995 most of these countries showed shares around or less than 10%.



Trade and international integration

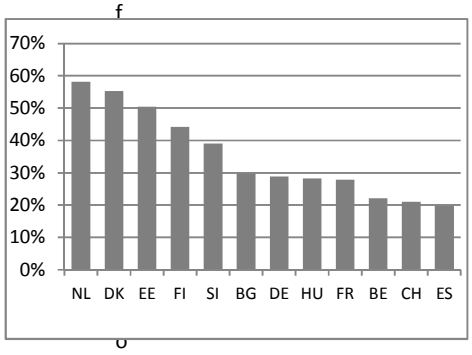
Figure 12: Net trade, in % of gross output in sector

Trade does not play a big role in this sector and therefore the ratios to gross output are of negligible magnitudes. Whereas trade is almost balanced in the EU aggregates, the US shows a slight surplus whereas Japan a slight deficit. With respect to employment shares of foreign affiliates Finland reports a share of 16% and the US of 3.5%. A foreign affiliates value added share is only reported for the US with also about 3.5%.



Large companies

Figure 13: Concentration rates: Share of 5 largest f



o
tal employment, in %

Figure 13 presents the employment shares of the five largest firms in total employment for countries. In the Netherlands, Denmark and Estonia the five largest companies account for between 50% and 60% of total employment. In Finland and Slovenia the share is close to 40%, while in Bulgaria, Germany Hungary and France is slightly less than 30%. In Belgium, Switzerland and Spain the five largest firms comprise a share in total employment of slightly more than 20%.

Restructuring of large companies

Restructuring by large companies has not been a major factor affecting employment in the sector. Since 2003, the European Restructuring Monitor records an overall loss of jobs from restructuring of under 50,000 in the sector across the EU, small in relation to around 10 million or so employed in large companies in the sector. Moreover, there does not seem to have been any significant increase in cases of restructuring during the recession years. The main form of restructuring has been the internal reorganisation, or rationalisation, of the large companies concerned, but bankruptcies and closures have accounted for over a quarter of the total job losses from restructuring since 2003.

Country Fiche

Austria (AT)

Value Added

Figure 1 depicts value added shares of selected sectors in the total economy. The most important changes occurred in the manufacturing sector (C) which decreased in importance from 25% to 20% since 1975 and the real estate and business services (LMN) which increased in importance from 5% to 18%. Stronger declines can also be found in agriculture (A) from 7% to 2% and for wholesale and retail trade (G) from 15% to 12%. The shares of all other sectors have been relatively stable over time. This is also reflected in the growth rates of real value added over the total period which are above average for manufacturing (C), transportation, storage and communication (HJ) and particularly for real estate and business services (LMN) (Figure 2).

Figure 1: Share in Total Value Added

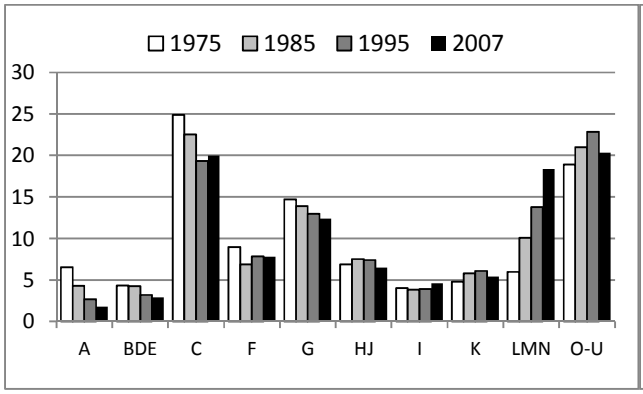
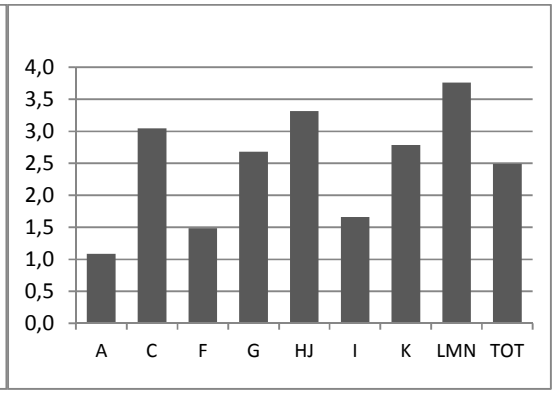


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

At the total economy level Austria was pretty much at the EU15 average with almost no changes in her relative position over time. With respect to individual sectors, productivity levels compared to EU15 improved in manufacturing (C) and accommodation and food service activities (I), in which Austria was above average in 2007, and the construction sector (F), in which it was above EU15 for the entire period. Productivity relative to EU15 declined in agriculture (A), financial and insurance activities (K) and real estate and business activities (LMN), particularly during the latter years. In wholesale and retail trade (G) Austria shows above EU15 productivity levels throughout the whole period.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

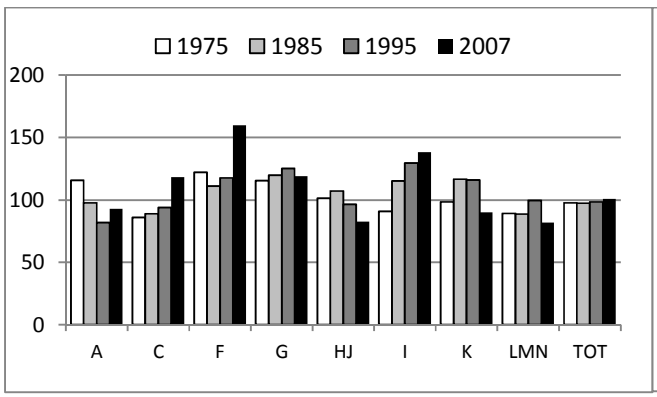
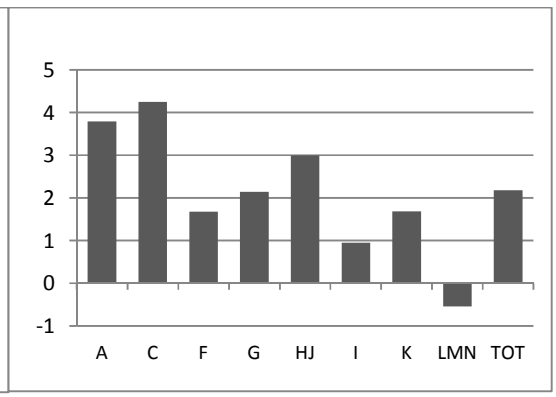


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

The patterns of changes in employment shares mirror those of value added though the levels are quite different. The strongest declines occurred in agriculture (A) – from 22% to 11% - and manufacturing (C) – from 23% to 15%. The largest increase took place in real estate and business activities (LMN) with a change in shares from 3% to 12%. Smaller increases are found in wholesale and retail trade (G) (13% to 15%) and accommodation and food service activities (I). Concerning growth rates, with the exception of agriculture (A) with a growth rate of -1.3% and manufacturing (C) with -0.8%, all sectors experienced positive growth rates which have been quite high at a level of 4% in real estate and business activities (LMN).

Figure 5: Share in Total Employment

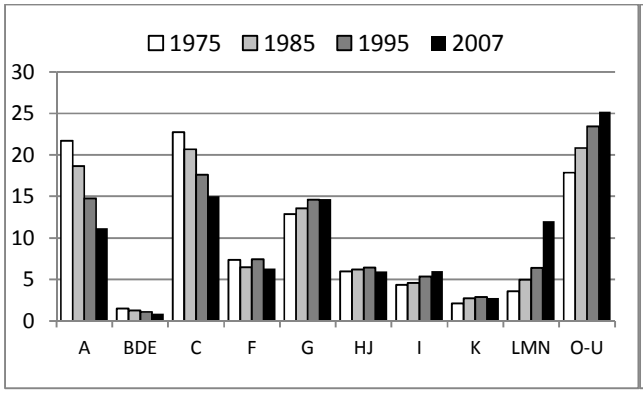


Figure 6: Employment, growth rates, annual average, 1975-2007

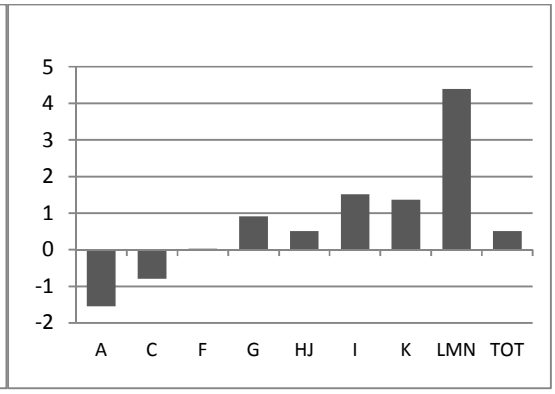


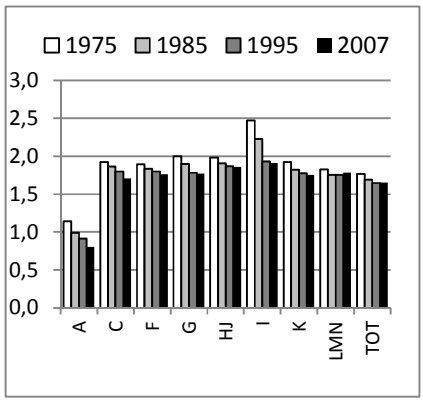
Table 1 provides figures on absolute numbers of persons employed. Total employment was growing from about 3.65 mn workers in 1975 to almost 4.3 mn in 2007. In terms of employment, the largest sectors are still the manufacturing sector (C) (with almost 6.5 mn persons employed) closely followed by wholesale and retail trade (G) with 6.3 mn and real estate and business activities (LMN) with 5.2 mn.

With the exception of accommodation and food service activities (I) annual hours worked declined relatively homogenously across all sectors (Figure 7). The low figure for agriculture (A) stems from the large share of part-time farmers: The average number of hours worked per employed person is currently at about 1,650 hours.

Table 1: Employment in sectors, 2007, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	793	832	269	471	218	159	77	130	3657
1985	692	768	240	503	230	171	102	184	3711
1995	577	689	291	572	252	210	114	251	3918
2007	481	644	271	630	256	258	119	516	4296

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The overall share of medium educated workers is about 65% but slightly declined since 1995 (Figure 8). At the sectoral level, the share of medium educated workers improved in agriculture (A) and financial and insurance services (K), with some other sectors (HJ, I) also showing slight improvements. The share of medium educated employed persons is above average in all sectors except agriculture (A) and real estate and business activities (LMN). The share of high educated has grown considerably from about 8% in 1995 to 18% in 2007 with strong increases to be observed in all sectors under consideration. However, in 2007 only the real estate and business services sector (LMN) shows above average share of high educated. Sectors close to the average are manufacturing (C) and financial and insurance services (K). Sector accommodation and food service activities (I) shows the lowest shares with hardly more than 5%.

The shares of ICT capital in total capital were increasing in all sectors since 1995, e.g. for the total economy from about 10% to 30% (Figure 10). Particularly high shares in both periods are observed in transportation, storage and communication (HJ) and in sectors wholesale and retail trade (G) and financial and insurance services (K). The lowest shares are found in agriculture (A) and construction (F).

Figure 8: Medium educated, share in total employed, 1995, 2007, in %

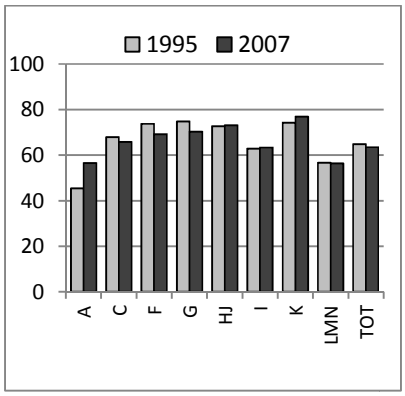


Figure 9: High educated, share in total employed, 1995, 2007, in %

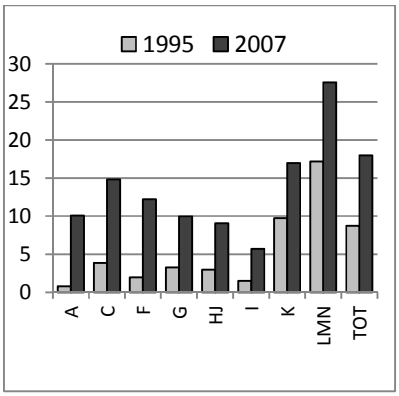
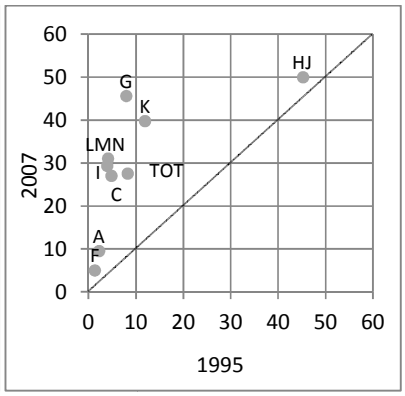


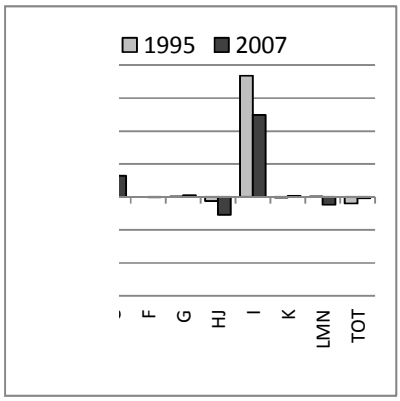
Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector

With respect to net trade in percent of gross output, Austria is running a small trade deficit in both years, which has decreased in 2007. Since 1995, Austria was successful in becoming a net exporter in manufacturing (C) but is a net importer of agricultural products with the ratio of -20% in 2007. As a touristic country the trade surplus in accommodation and food servce activities (I) is not surprising, though it declined from almost 40% in 1995 to 25% in 2007. With about -5%, a decline also took place in transportation, storage and communication (HJ) in 2007.



Country Fiche

Belgium (BE)

Value Added

The share of value added in total value added decreased the most in manufacturing (C), from 26% in 1975 to 16% in 2007 and slightly in agriculture (A) from 4% in 1975 to 1% in 2007. All other sectors either maintained their shares of value added in total or increased their shares. Most significant increases occurred in real estate and business activities (LMN), from around 10% in 1975 to 24% in 2007, while wholesale and retail trade (G) and transportation and storage (HJ) both only experienced modest increases. Real value added growth rates were positive in all sectors considered and above country average in all sectors except for agriculture (A), construction (F), wholesale and retail trade (G) and accommodation and food service activities (I).

Figure 1: Share in Total Value Added

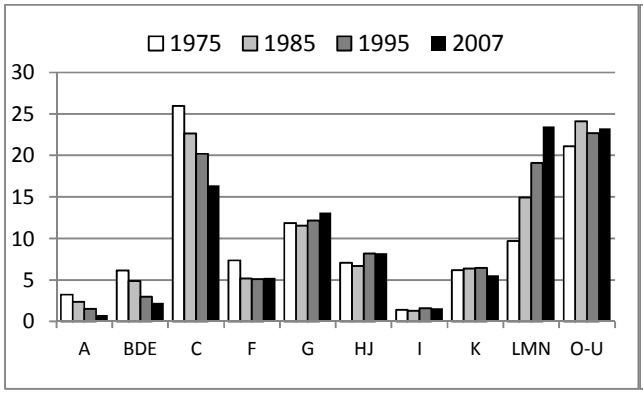
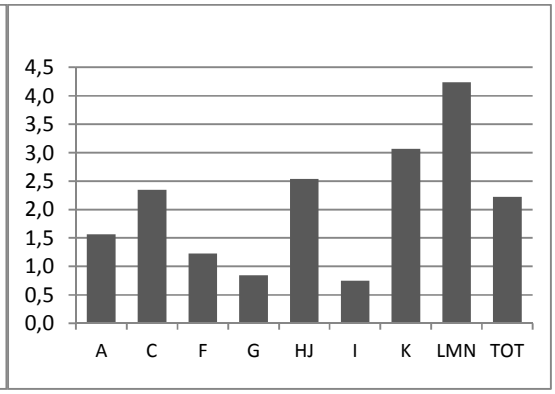


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

Between 1975 and 2007, the overall productivity level of the Belgian economy stayed consistently above the EU15 productivity level. At the sectoral level, both manufacturing (C) and financial and insurance activities (K) closed any prevailing productivity gaps and even surpassed the EU15 productivity level before 1975 and 1995, respectively. And even though agriculture (A), wholesale and retail trade (G), transportation and storage (HJ) and real estate and business activities (LMN) all experienced decreasing productivity levels (relative to the EU15 level), these sectors still maintained their productivity advantage vis-à-vis the EU15.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

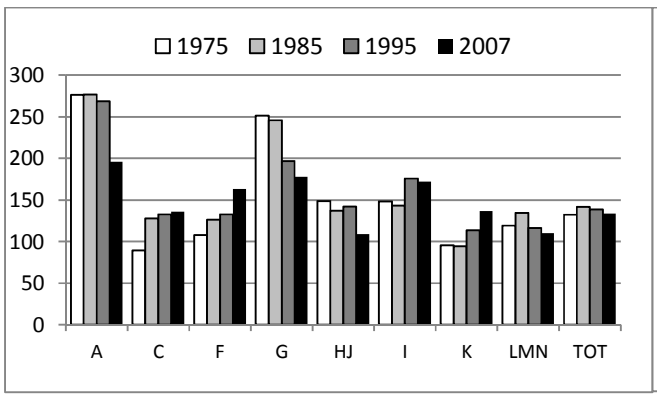
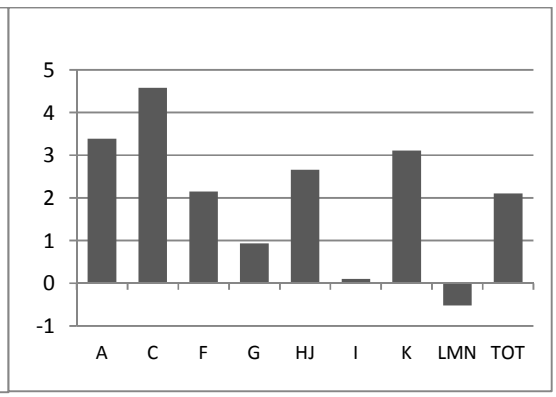


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

The share in total employment dropped starkest in manufacturing (C), from 29% in 1975 to 14% in 2007 and only slightly in agriculture (A), from 4% in 1975 to 1% in 2007 and construction (F). The share in total employment increased the most in real estate and business activities (LMN), from around 5% in 1975 to 16% in 2007 and remained fairly stable in all other sectors considered. This is also reflected in annual employment growth rates which were negative for agriculture (A), manufacturing (C) and construction (F) but significantly above country average in accommodation and food service activities (I) and real estate and business activities (LMN).

Figure 5: Share in Total Employment

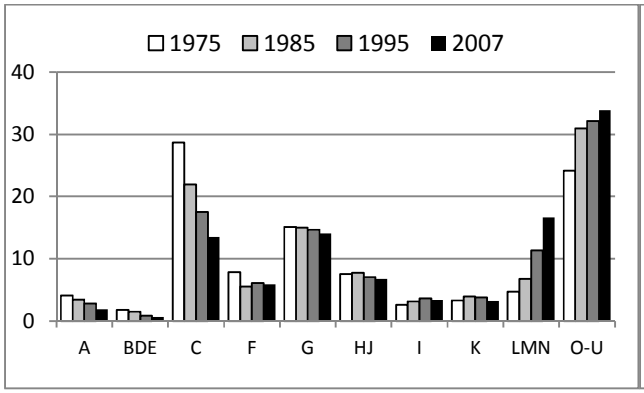
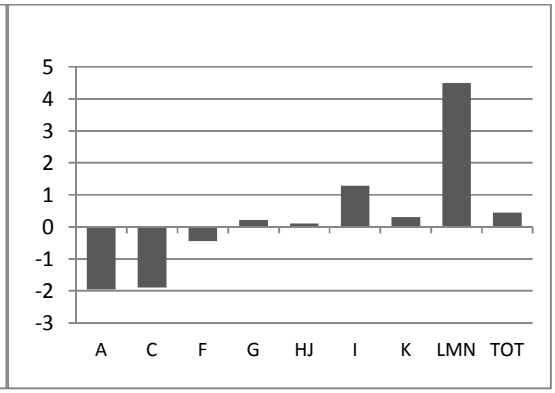


Figure 6: Employment, growth rates, annual average, 1975-2007



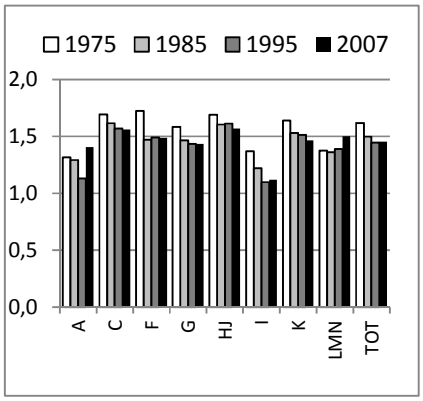
In absolute terms, employment quadrupled in real estate and business activities (LMN) (from 0.2 mn persons in 1975 to 0,7 mn persons in 2007) but almost halved both in agriculture (A) (from 0.2 mn persons in 1975 to around 0.1 mn persons in 2007) and in manufacturing (C) (from 0.11 mn persons in 1975 to 0.6 mn persons in 2007).

Between 1977 and 2007, hours worked decreased in all sectors except for agriculture (A), which experienced a stark increase in 2007, and for real estate and business activities (LMN) which underwent a continuous increase until 2007. Hours worked decreased the most in accommodation and food service activities (I).

Table 1: Employment in sectors, 2007, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	156	1086	297	573	286	99	126	178	3784
1985	126	797	202	546	283	116	145	245	3639
1995	109	678	236	568	274	142	147	440	3868
2007	83	590	258	614	296	149	139	728	4365

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

Except for financial and insurance activities (K) and real estate and business activities (LMN), all sectors succeeded in increasing their shares of medium educated workers in total employed between 1995 and 2007. The share of medium educated in total increased the most in agriculture (A), construction (F) and accommodation and food service activities (I). In 2007, only financial and insurance activities (K) and real estate and business activities (LMN) had below average medium educated worker shares. In contrast, all sectors increased their shares of high educated in total, most significantly in financial and insurance activities (K). And in 2007, only financial and insurance activities (K) and real estate and business activities (LMN) had above average high educated worker shares.

Between 1995 and 2006, all sectors experienced improvements in the shares of their ICT capital stock in total capital stock. And with the exception of agriculture (A), all sectors more than doubled the shares of their ICT capital stock in total capital stock.

Figure 8: Medium educated, share in total employed, 1995, 2007, in %

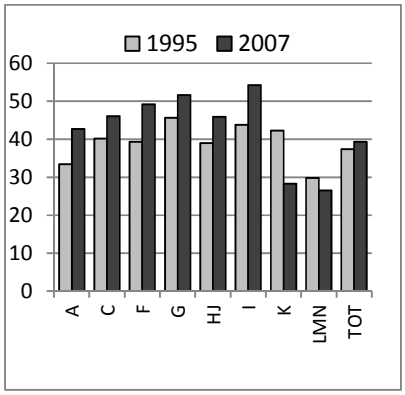


Figure 9: High educated, share in total employed, 1995, 2007, in %

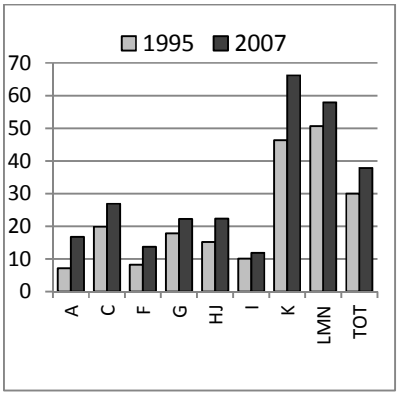
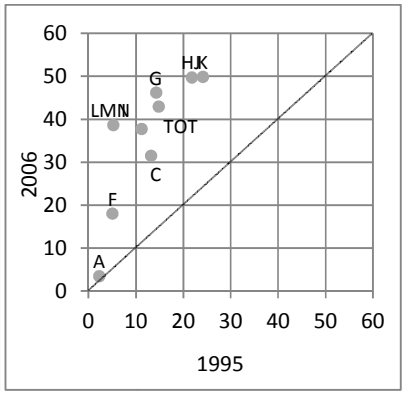
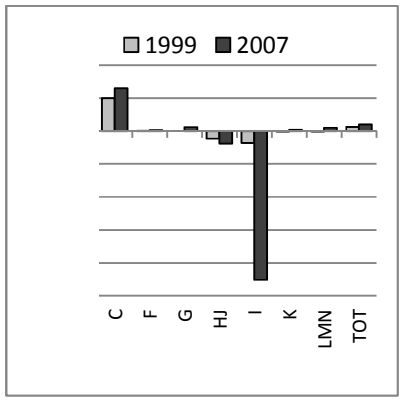


Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector



In both, 1999 and 2007, Belgium ran a trade surplus that even improved from 1999 to 2007. At the sectoral level, agriculture (A), construction (F), transportation and storage (HJ), accommodation and food service activities (I) and financial and insurance activities (K) were all net importers in 1999 and 2007. In 2007, both agriculture (A) and accommodation and food service activities (I) were the prime net importers among all sectors considered. In contrast, real estate and business activities (LMN) moved from being a net importer in 1999 to being a net exporter in 2007. And, among all sectors considered, manufacturing (C) was the major net exporter in both 1999 and 2007.

Country Fiche

Bulgaria (BG)

Value Added

Figure 1 indicates the value added shares of the selected sectors in the total economy. The most important changes occurred in the agricultural sector (A) which declined from 15% in 1996 to 8% in 2006. A less significant decline is observed in real estate and business activities (LMN) which dropped from 17.5% to 15%. The shares for all other sectors increased though in a hump-shaped manner in manufacturing which in 2006 accounts for the largest share of 18%, wholesale and retail trade (9%) and financial and insurance activities (5%). A more steady increase is observed in construction (6%), transportation, storage and communication (HJ) and accommodation and food service activities (I).

Figure 1: Share in Total Value Added

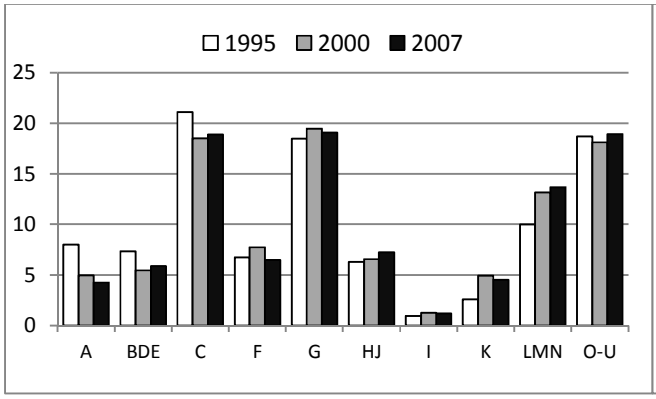
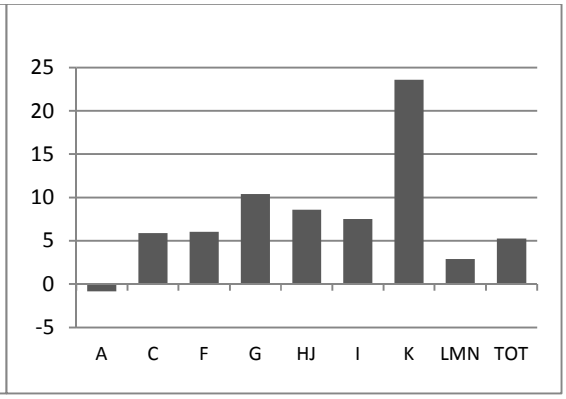


Figure 2: Value Added, real growth rates, annual average 1998-2006



Productivity

In terms of productivity relative to EU15 Bulgaria is still lagging far behind with only 15% which only slightly increased since 2000. Sectors with relative productivity levels significantly above total average are agriculture which faced a slight decline to 21%, financial and insurance activities with a strong increase to 65% and real estate and business activities (LMN) with 30%. Importantly, manufacturing (C) is only at a level of about 10% of EU15. Accordingly, productivity growth was strongest in financial and insurance activities (K); slightly negative growth rates are seen for real estate and business activities with -2%. In total, productivity has grown by 4% over the period 2000-2006.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

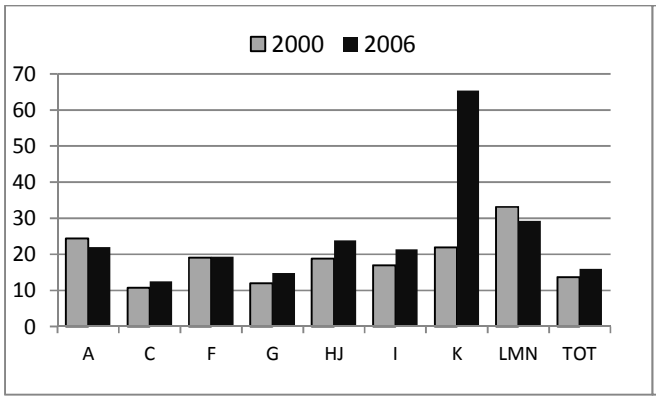
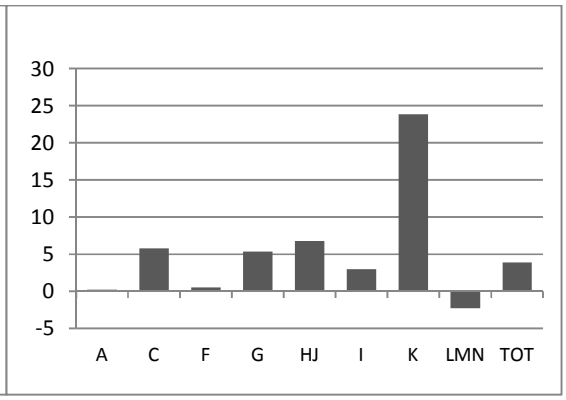


Figure 4: Productivity (VA per hour worked, growth, annual average 2000-2006



Employment

Employment shares are still highest in agriculture (A) and manufacturing (C) with 20% followed by wholesale and retail trade with 15%. The other sectors are smaller at about 6%in construction (F) and transportation, storage and communication (HJ) and real estate and business activities (LMN) with 5%. The smallest share is found to be in sector financial and insurance services with only 2%. Significant increases in these shares took place in construction (F), wholesale and retail trade (G) and real estate and business services (LMN). Shares of the other sectors are roughly constant. Employment growth rate in period 2000-2007 was at a level of 2% with much higher growth rates in construction (F) with 9% and real estate and business services with 8%. Wholesale and retail trade (G), accommodation and food service activities (I) and financial and insurance services (K) grew at about 4.5%. Employment growth rate in agriculture (A) was negative with -1%.

Figure 5: Share in Total Employment

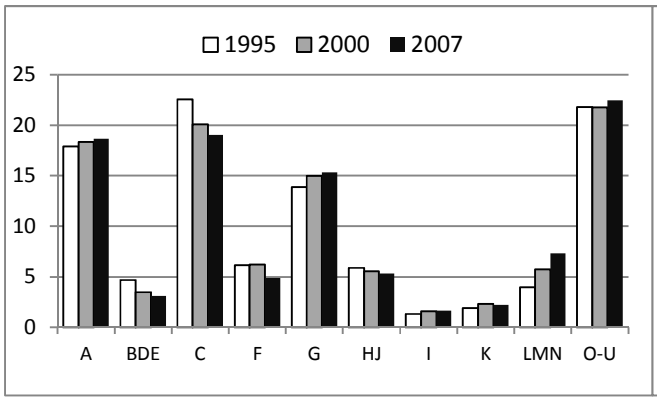
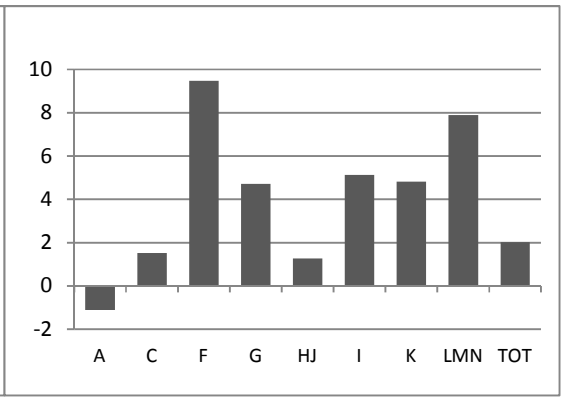


Figure 6: Employment, growth rates, annual average, 2000-2007

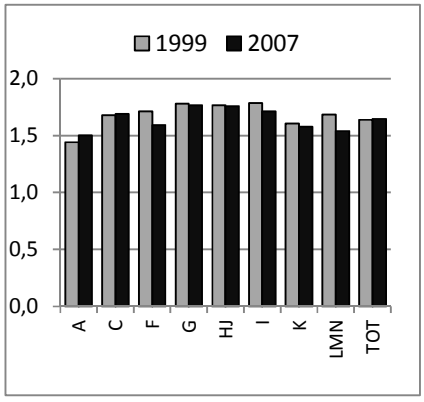


In absolute terms employment therefore increased from 3.24 mn to 3.73 mn from 2000 to 2007. The largest sectors account for 730 ths persons in agriculture (A) and manufacturing each. These are followed by wholesale and retail trade with 530 ths. The smallest sector is financial and insurance activities with 50 ths employed persons. Hours worked per person employed at the total level increased slightly to 1600 hours probably due to a shift in industry structure as shares are falling in most individual sectors. Hours worked per employed person are lowest in agriculture with 1500 hours.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
2000	789	660	132	384	213	102	37	118	3239
2007	729	733	248	530	233	145	51	201	3727

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated was increasing from 56 to 60% between 2000 and 2007. The shares in manufacturing (C) with 75%, wholesale and retail trade (G) and transportation, storage and communication (HJ) with 65% and accommodation and food service activities (I) are well above this level. Shares in agriculture (A) strongly increased from 35 to almost 50% and strongly decreased in financial and insurance services (K) from 55 to 35%. Also shares in real estate and business activities (LMN) are well below the total. With respect to high educated the share in total employment is at about 25% with levels well beyond that in financial and insurance activities (K) which also shows a strong increase and real estate and business activities (LMN) facing a slight decline. The share of high educated is relative low in agriculture (A) with 5% and accommodation and food service activities with 10%. Similar shares are seen in manufacturing (C) and construction (F) whereas the remaining two sectors account for about 20%.

Figure 8: Medium educated, share in total employed, 2000, 2007, in %

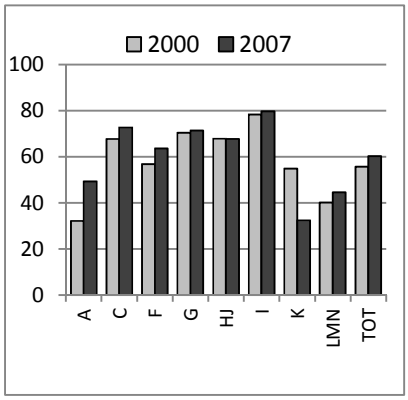
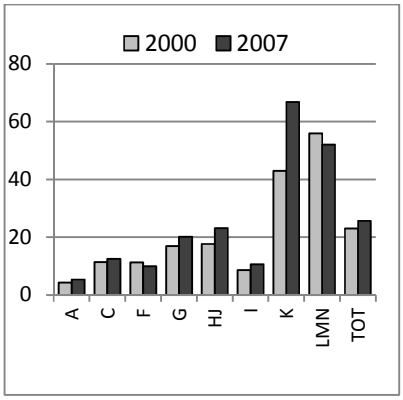
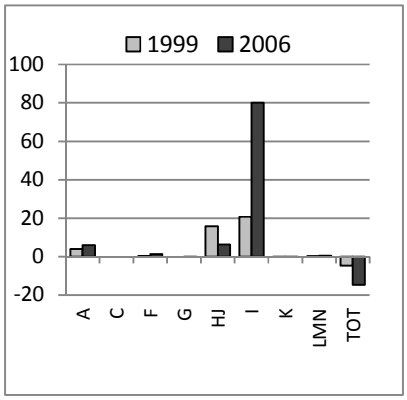


Figure 9: High educated, share in total employed, 2000, 2007, in %



Trade

Figure 10: Net trade, in % of gross output in sector



Country Fiche

Switzerland (CH)

Value Added

In Switzerland the sector financial and insurance activities (K) experienced the strongest rise in value added as a share in the total economy from 7% in 1991 to 13.5% in 2007. The share of agriculture (A) more than halved in this period from 3% to 1.2% and also construction (F) declined strongly from 8.3% in 1991 to 5.4% in 2007. The shares of other sectors: manufacturing (C), wholesale and retail trade (G) and accommodation and food service activities (I) fell slightly to 20%, 13% and 2.3% in 2007 respectively or remained constant at about 6% in transportation, storage and communication (HJ). Slight increases were recorded in real estate and business activities (LMN) to 16.5% in 2007. Overall annual value added growth was in the period 1991 to 2007 moderate with 1.5%, but the pattern across sectors is very heterogeneous. Whereas value added growth rate in insurance activities (K) with 4.6%, transportation, storage and communication (HJ) with 3.4% and manufacturing (C) with 1.9% was quite high, growth remained with about 1% below average in wholesale and retail trade (G) and real estate and business activities (LMN). In agriculture (A)with -0.3% and construction with -0.7% value added decreased slightly, while a stronger decline with -2.3% was recorded in the case of accommodation and food service activities (I).

Figure 1: Share in Total Value Added

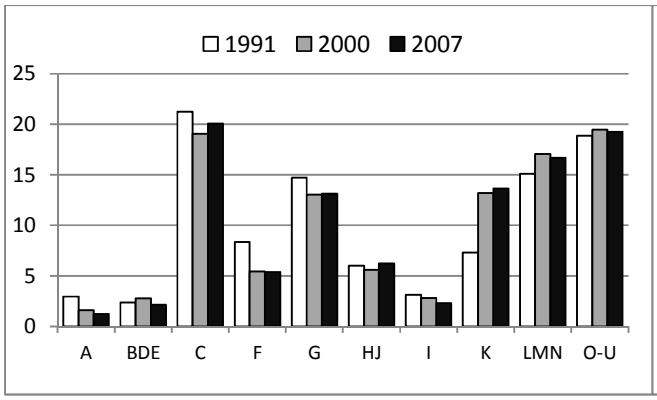
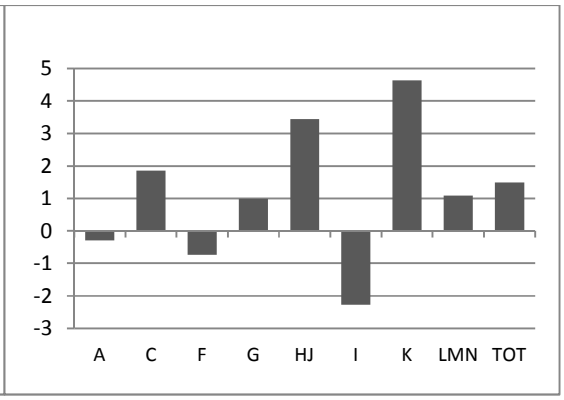


Figure 2: Value Added, real growth rates, annual average 1991-2007

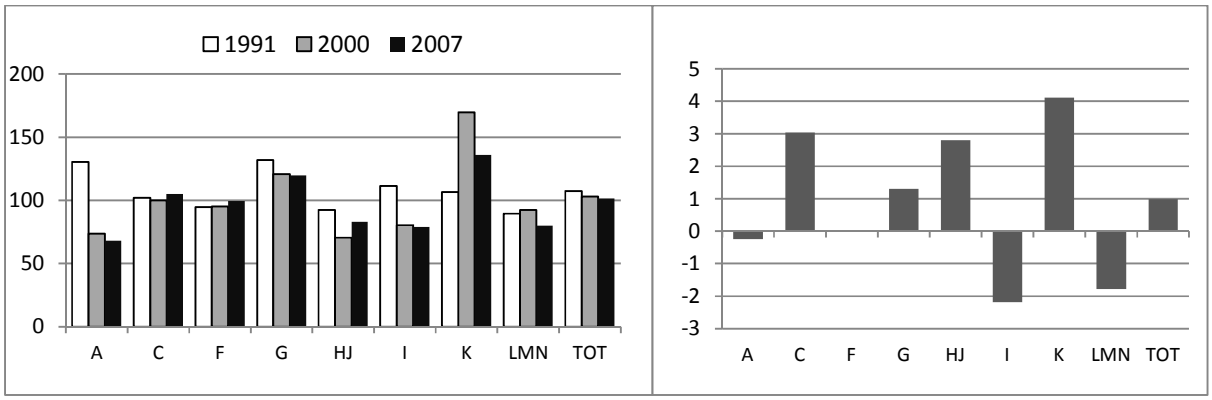


Productivity

Productivity levels in comparison to EU-15 (calculated on the basis of persons employed not hours worked!) declined slightly in the period from 1991 to 2007 from 107% to 102%. A similar development took place in the majority of sectors. Only in agriculture (A) a strong reduction from 130% to 70% was recorded and in accommodation and transport equipment (I) from 110% to 80%. Slight reductions were recorded in wholesale and retail trade (G), transportation, storage and communication (HJ) and real estate and business activities (LMN). In manufacturing (C) and construction (F) productivity levels remained constant equally high as in the EU-15. A strong rise in relative productivity levels from 105% to 135% took place in financial and insurance activities (K).

Figure 3: Productivity (VA per employed), levels, EU15=100

Figure 4: Productivity (VA per employed, growth, annual average 1991-2007

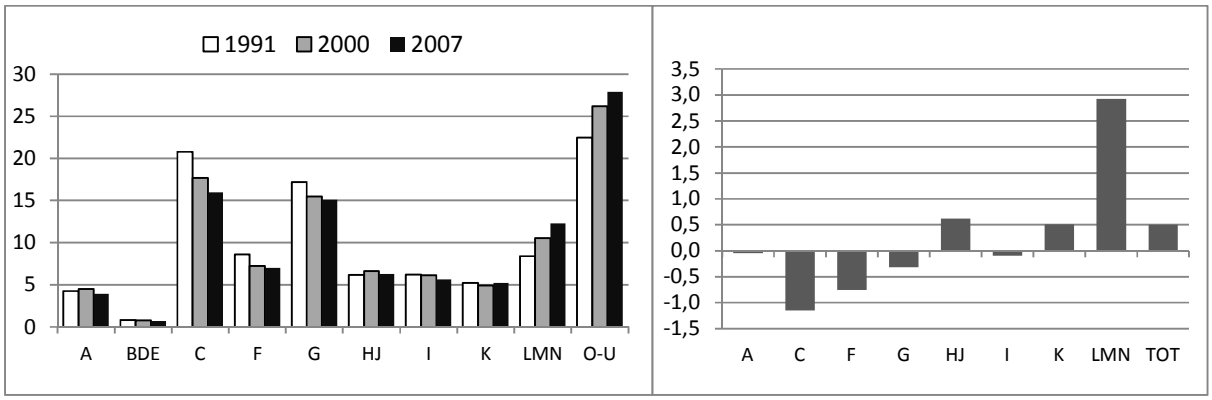


Employment

Employment shares have been declining gradually in manufacturing (C) from 21% to 16%, in construction (F) from 8.5% to 7% and in wholesale and retail trade (G) from 17% to 15%. In most other industries they remained constant, at 4% in agriculture (A), 6% in transportation, storage and communication (HJ), 6% in accommodation and food service activities (I) and 5% in financial and insurance activities (K). An increase of the employment share from 8.5% to 12.5% took place in real estate and business activities (LMN). Overall annual employment growth was 0.5%. Strong growth of 3% occurred in real estate and business activities (LMN), while in transport, storage and communication (HJ) and financial and insurance activities (K) the growth rate corresponded with 0.5% the average. In agriculture (A) and accommodation and food service activities (I) employment remained constant, while it declined strongest in manufacturing (C) with -1.1% but also in construction (F) with -0.8% and wholesale and retail trade (G) with -0.3%.

Figure 5: Share in Total Employment

Figure 6: Employment, growth rates, annual average, 1991-2007



In absolute terms this means that the number of employed persons increased from 4.1 mn in 1991 to 4.4 mn in 2007. In 2007 in manufacturing (C) 704 ths persons were employed followed by 666 ths in wholesale and retail trade (G) and real estate and business activities (LMN) with 541 ths. The smallest sector in terms of employment is agriculture accounting for 172 ths persons employed.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1991	173	847	350	700	251	252	211	341	4075
2000	184	721	295	632	270	250	200	429	4080
2007	172	704	310	666	277	249	229	541	4413

Skill formation

The share of medium educated in total employed is at a level of 55% and fell slightly from 1996. Somewhat higher shares with 65%are seen in wholesale and retail trade (G) and transportation, storage and communication (HJ). A lower share is recorded only in real estate and business activities (LMN) with 55%. The shares of medium educated slightly declined in all sectors except for agriculture (A). The share of high educated employed persons increased from slightly above 20% to almost 30% with increases to be observed in all sectors except for construction with 14% in 2007. Shares are exceptionally high in financial and insurance activities (K) and real estate and business activities (LMN) with about 40%. Even in manufacturing (C) the share is 23% and it ranges between 15% and 18% in agriculture (A), wholesale and retail trade (G) and transportation, storage and communication (HJ). The lowest share is recorded in accommodation and food service activities (I) with 12%.

Figure 7: Medium educated, share in total employed, 1996, 2007, in %

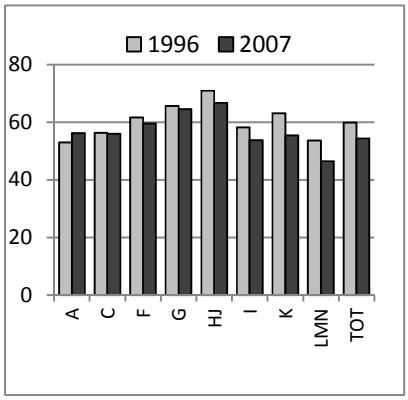
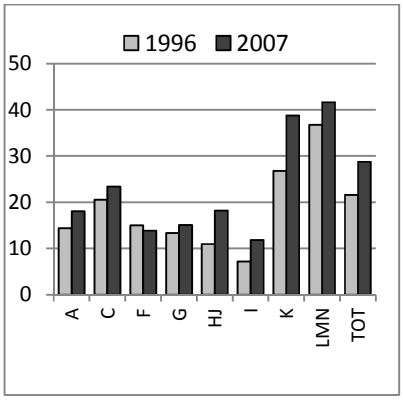


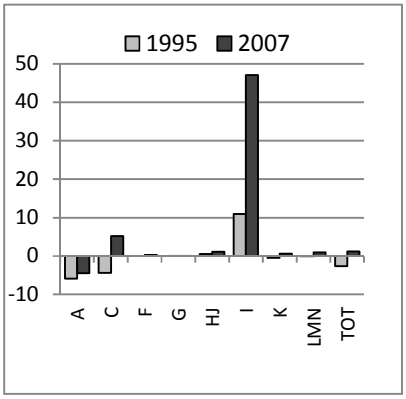
Figure 8: High educated, share in total employed, 1996, 2007, in %



Trade

Figure 9: Net trade, in % of gross output in sector

Overall net trade was slighty negative in 1995 (with -3% in terms of gross output) but became positive in 2007 (+1%). Partiularly net trade in the manufacturing sector became positive (+5%) from a negative of -4% in 1995. Most of the other sectors show slightly postive rates which are particularly high in accommodation and food service activities.



Country Fiche

Cyprus (CY)

Value Added

Figure 1 presents the shares of the selected sectors in total value added since 1995. Sector real estate and business activities (LMN) account for the largest share with 18% (increasing from 15%), followed by wholesale and retail trade (G) with 14%. The share of manufacturing (C) was declining from 12% to 7% over the period, agriculture (A) from 5% to 3%. A relatively strong rise is also visible in sector financial and insurance activities (K) which increased from 5% to 8%. Overall value added growth was positive with 3.5% and particularly strong in transportation, storage and communication (HJ) with almost 6% and financial and insurance activities (K) with 7%. Lower growth rates but still positive are seen for agriculture (A) and manufacturing (C) with less than 1% and accommodation and food service activities (I) with 1.5%.

Figure 1: Share in total value added

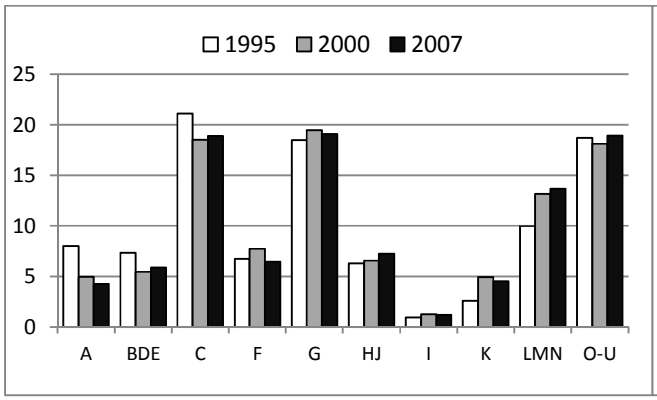
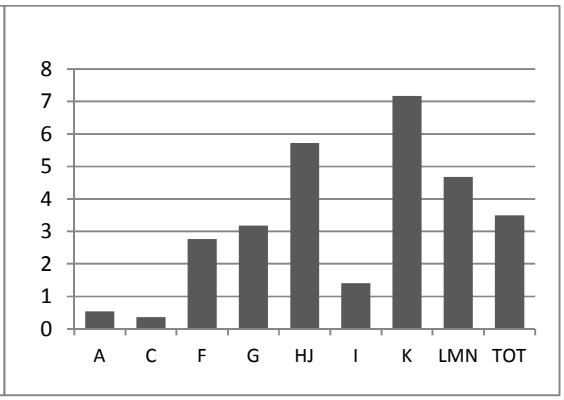


Figure 2: Value added, real growth rates, annual average 1995-2007



Productivity

Overall productivity compared to EU-15 was relatively constant at about 75% with most of the sectors considered being in this range. Accommodation and food service activities (I) and real estate and business activities (LMN) are well above the EU-15 average, whereas manufacturing (C) is at a level of only 50%.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

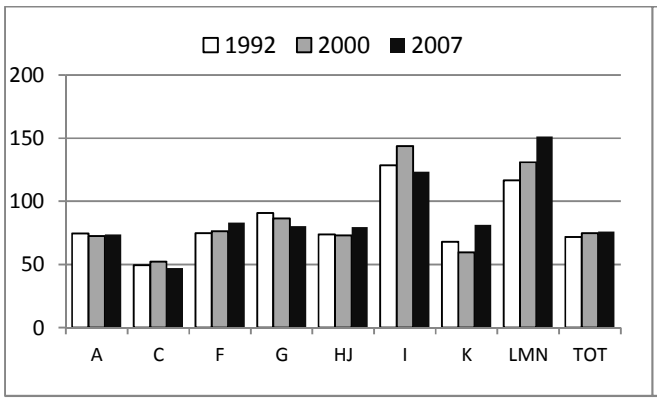
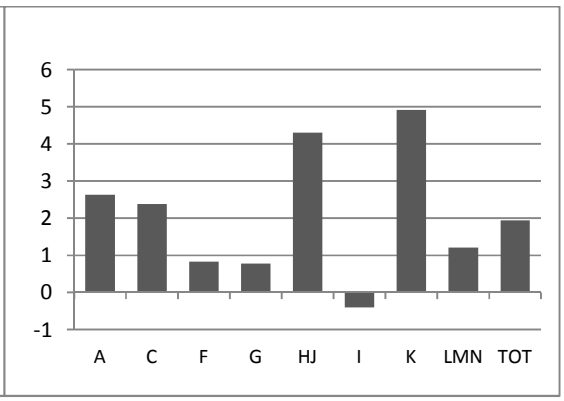


Figure 4: Productivity (VA per hour worked, growth, annual average 1995-2007



Employment

Sector wholesale and retail trade (G) accounts for the largest share in employment with 18% which is followed by manufacturing (C), construction (F) and accommodation and food service activities (I) with about 10%. The share of manufacturing (C) was declining since 1995 from a starting level of 15%. The employment share of agriculture dropped from 10% to 7% in this period. The shares of the remaining services sectors are rather constant at 7% (transportation, storage and communication, HJ), 5% (financial and insurance activities, K, and real estate and business activities, LMN). Overall employment growth rate was at about 1.5% with higher growth rates achieved in financial and insurance activities (K) and real estate and business activities (LMN). Employment declined in agriculture (A) and manufacturing (C) with -2.4% and -2%, respectively.

Figure 5: Share in Total Employment

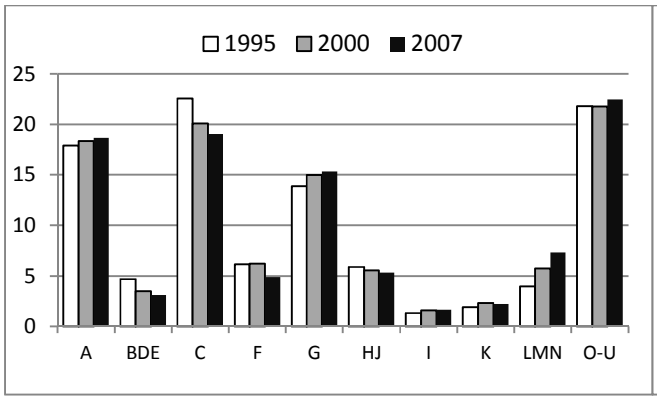
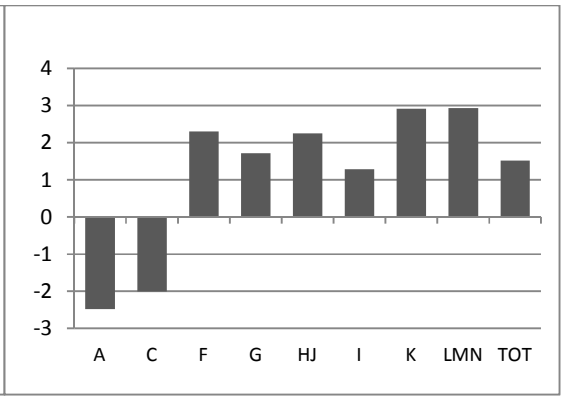


Figure 6: Employment, growth rates, annual average, 1995-2007

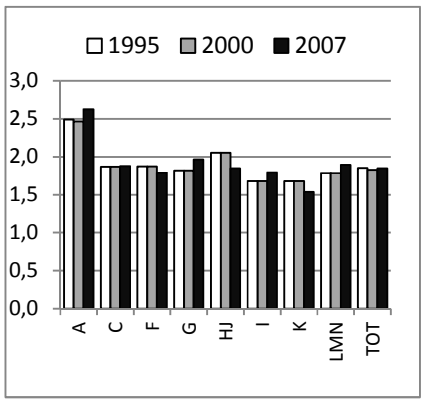


Employment in absolute numbers increased from 284 ths to 341 ths in the period 1995-2007. In the largest sector, wholesale and retail trade (G), 61 ths persons are employed. In the smaller sectors financial and insurance activities (K) and real estate and business activities (LMN) only less than 20 ths persons are working. Average hours worked is at about 1800 hours for the total economy which is rather similar across sectors with the exception of agriculture (A) for which about 2500 hours are reported.

Table 1: Employment in sectors, in thousand

Year	A	C	F	G	HJ	I	K	LMN	TOT
1995	30	44	28	50	18	30	12	13	284
2000	25	37	26	54	21	33	16	15	302
2007	22	34	36	61	23	35	17	18	341

Figure 7: Annual hours worked per employed, in thousand



Skill formation

Medium educated account for about 40% of total employed in Cyprus with some differences across sectors. The shares range from 35% in agriculture (A) to 30% in real estate and business activities (LMN) to more than 50% in wholesale and retail trade (G). In most sectors the shares of medium educated increased and in some cases extensively. Only in transportation, storage and communication (HJ), financial and insurance activities (K) and real estate and business activities (LMN) the shares have been either constant or declined. In these latter sectors however the shares of high educated increased strongly which take account of 42%, 52% and61% respectively. This is to be compared to the overall share of 35%. Shares in the other sectors are 20% or less.

Figure 8: Medium educated, share in total employed, 1999, 2007, in %

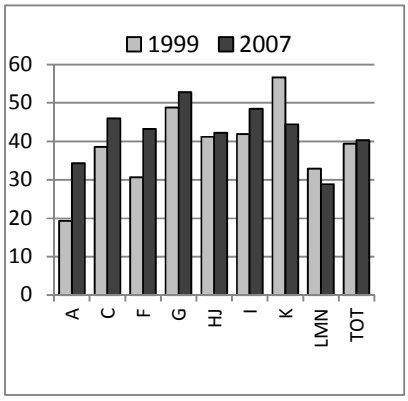
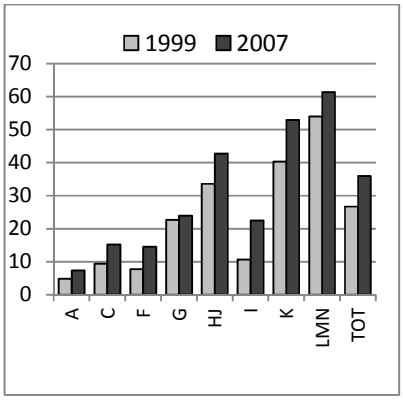


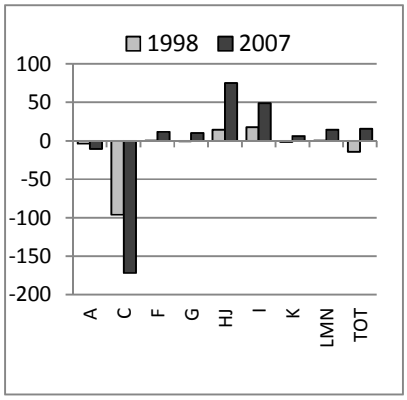
Figure 9: High educated, share in total employed, 1999, 2007, in %



Trade

Cyprus has large negative net trade in manufacturning (C) and postive net trade in transportation, storage and communication (HJ) and accommodation and food service activities (I). Net trade in total turned from negative in 1995 to positive in 2007.

Figure 10: Net trade, in % of gross output in sector



Country Fiche

Czech Republic (CZ)

Value Added

The Czech Republic is exception as the share of manufacturing (C) in total value added increased steadily from 24% in 1995 to 27% in 2007. The share of agriculture has halved in this period from 5% to 2.5% whereas the shares of the remaining sectors – with the exception of wholesale and retail trade (G) where shares increased slightly from 11% to 13% - have been rather stagnant apart from a slight decrease in accommodation and food service activities (I). Overall employment growth was relatively high with more than 2%, but the pattern across sectors is very heterogeneous. Whereas value added growth rate in manufacturing (C) with 6%, wholesale and retail trade (G) with 8% and financial and insurance activities (K) with 6% was very high, employment strongly declined in accommodation and food service activities (I) with -6% and slightly in agriculture (A) and construction (F) at a rate of about -1%.

Figure 1: Share in Total Value Added

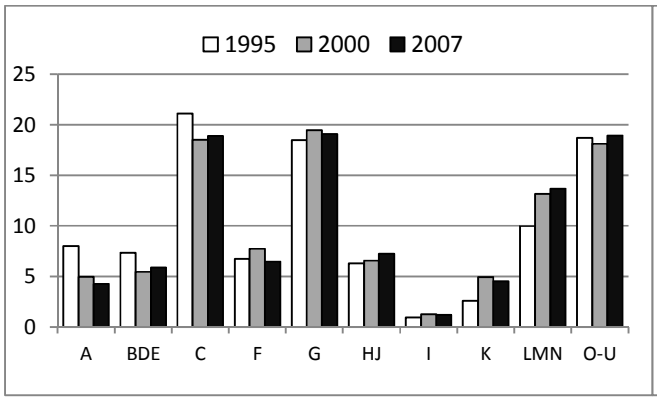
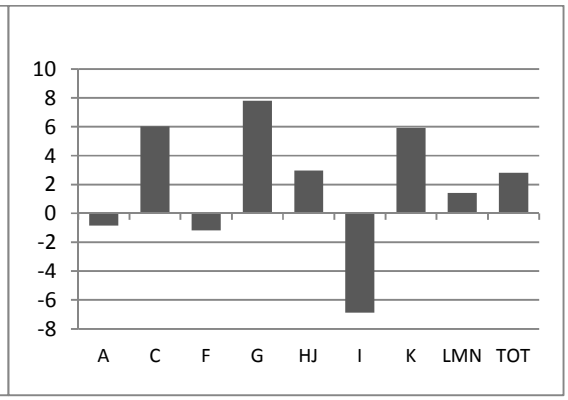


Figure 2: Value Added, real growth rates, annual average 1995-2007



Productivity

Productivity levels in comparison to EU-15 increased from slightly above 40% in 1995 to 55% in 2007. The pattern across industries however is quite diversified. Agriculture (A) and wholesale and retail trade (G) almost reached EU-15 levels whereas most of the other sectors are in between 50 and 60% of this though there has been a catching-up process going on in most of these sectors maybe with the exception of accommodation and transport equipment (I) and transportation, storage and communication (HJ).

Figure 3: Productivity (VA per hour worked), levels, EU15=100

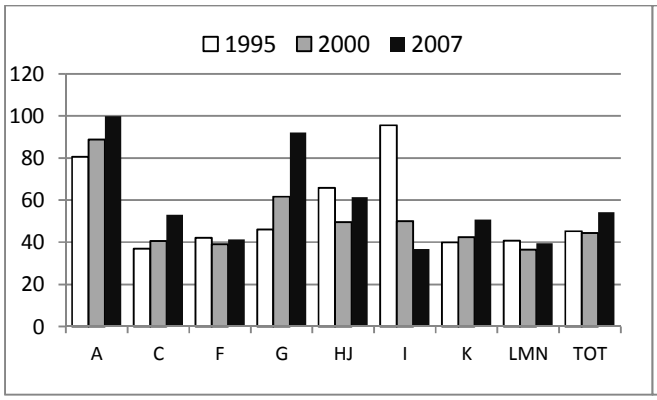
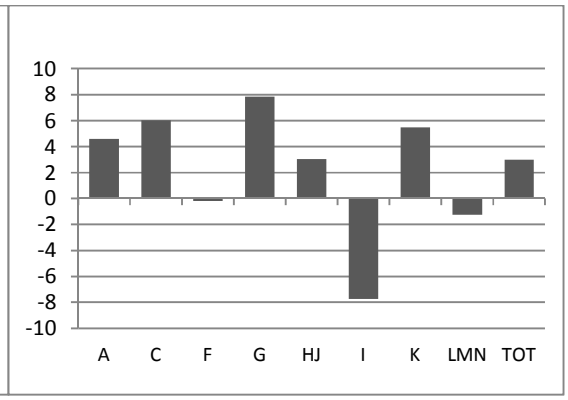


Figure 4: Productivity (VA per hour worked, growth, annual average 1995-2007



Employment

Employment shares have been rather constant in general with the strongest changes taking place in agriculture (A) where these dropped from about 7% to 3.5% and real estate and business activities (LMN) where the shares increased from 8% to 11%. The shares in manufacturing (C) have been rather stable at about 27-28%, but also in wholesale and retail trade (G) with 15%, transportation, storage and communication with about 8% and the smaller sectors accommodation and food service activities (I) with 4% and finally financial and insurance activities with 2%. Employment shares in construction slightly declined from 10 to 8%. Overall employment growth was zero. A strong decline occurred in agriculture (A) with -4.5% whereas employment in real estate and business activities (LMN) increased by 3%. Growth was also negative in construction (F) with -1% and positive in accommodation and food service activities (I) with 1.2% and financial and insurance activities with 0.85.

Figure 5: Share in Total Employment

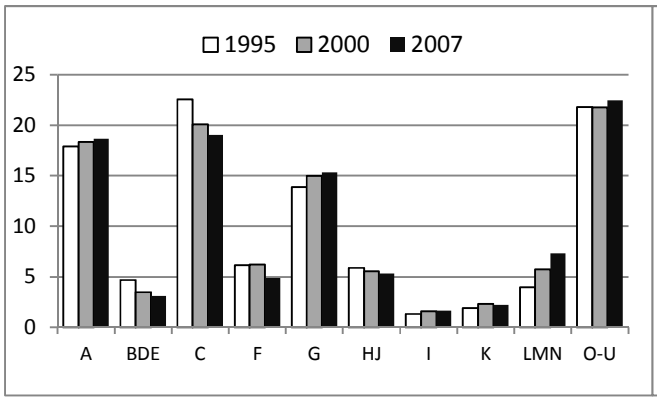
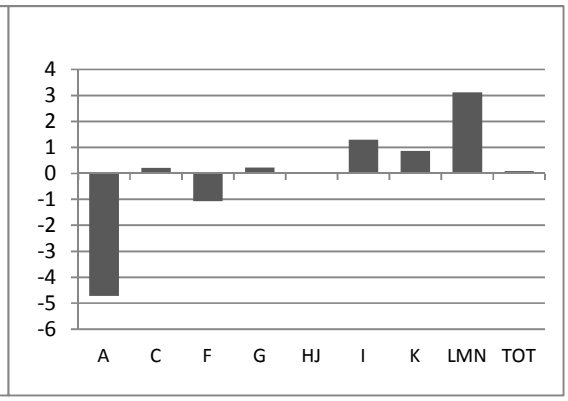


Figure 6: Employment, growth rates, annual average, 1995-2007

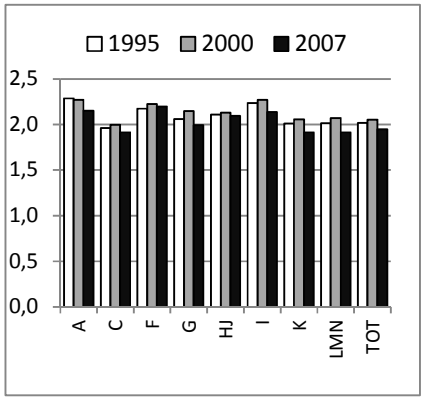


In absolute terms this means that the number of employed persons increased from 5.15 mn in 1995 to 5.2 mn in 2007 with a decline to 4.9 mn from 1995 to 2000. In manufacturing (C) 1.4 mn persons are employed followed by 778 ths in wholesale and retail trade (G) and real estate and business activities (LMN) with 569 ths. The smallest sector in terms of employment is financial and insurance activities accounting for 87 ths pesons employed. Average hours worked per employed person are relatively stagnant at about 2000 hours though slightly declined since 2000. Stronger declines took place in agriculture (A) from 2250 to 2100 and accommodation and food service activities (I) from 2200 to 2100. Hours worked in manufacturing are comparatively low with about 1900 hours.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1995	327	1402	506	757	354	158	79	394	5150
2000	238	1367	431	722	356	175	87	426	4942
2007	183	1438	444	778	353	184	87	569	5209

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated in total employed is at a level of 80% and constant since 1995. Significantly higher shares are seen in construction (F), wholesale and retail trade (G), transportation, storage and communication (HJ) and accommodation and food service activities (I). The shares in financial and insurance activities (I) with 70% and real estate and business activities (LMN) with about 60% are significantly lower. The shares of medium educated in the latter two sectors also declined whereas the shares increased in the others. The share of high educated employed persons increased from slightly above 10% to about 15% with increases to be observed in all sectors. Shares are particularly high in financial and insurance activities (I) and real estate and business activities (LMN) with 30% (25% in 1998) and 35% (30% in 1998). The corresponding shares in the other sectors are less than 10%. The share of ICT capital increased over time in all sectors and is now at about 25% for the total economy. Outstanding is the share of ICT capital with 55% (35% in 1995). The share in agriculture is particularly low with only 3%.

Figure 8: Medium educated, share in total employed, 1998, 2007, in %

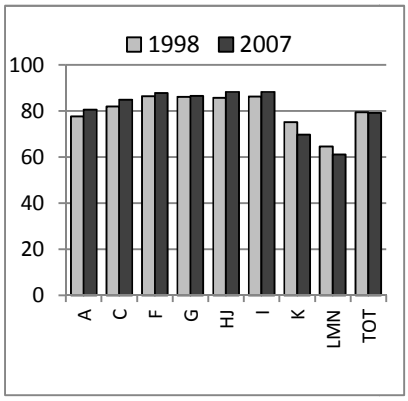


Figure 9: High educated, share in total employed, 1998, 2007, in %

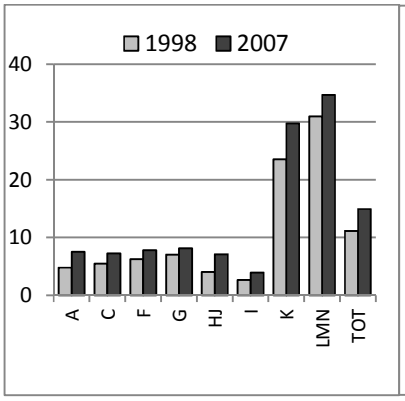
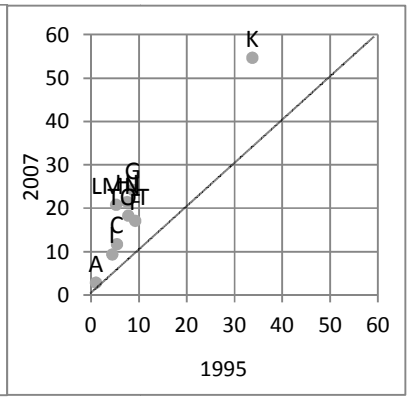


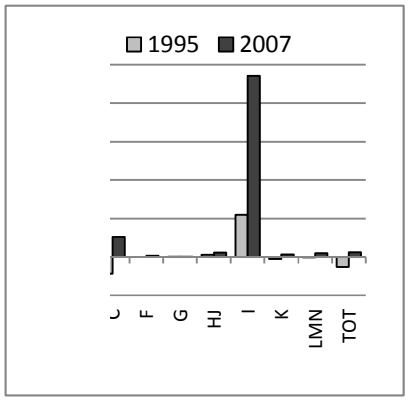
Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector

Overall net trade was slighty negative in 1995 (with -3% in terms of gross output) but became positive in 2007 (+1%). Partiularly net trade in the manufacturing sector became positive (+5%) from a negative of -4% in 1995. Most of the other sectors show slightly postive rates which are particularly high in accommodation and food service activities.



Country Fiche

Germany (DE)

Value Added

The shares in total value added of selected sectors are depicted in Figure 1. Real estate and business activities (LMN) improved the most: its share in total value added more than doubled from 11% in 1975 to 26% in 2007. In contrast, the shares in total value added dropped the most in manufacturing (C) from 31% in 1995 to 24% in 2007, in construction (F) from 7% in 1995 to 4% in 2007 and in agriculture (A) from 3% in 1975 to 1% in 2007. All other sectors have experienced fairly stable value added shares. Figure 2 shows real value added growth rates of selected sectors, relative to the overall economy. Above average value added growth rates existed in real estate and business activities (LMN), transportation and storage (HJ) and wholesale and retail trade (G). In all other sectors, real value added growth fell short of the overall average. Construction (F) even lost value added by around -1% annually between 1975 and 2007.

Figure 1: Share in Total Value Added

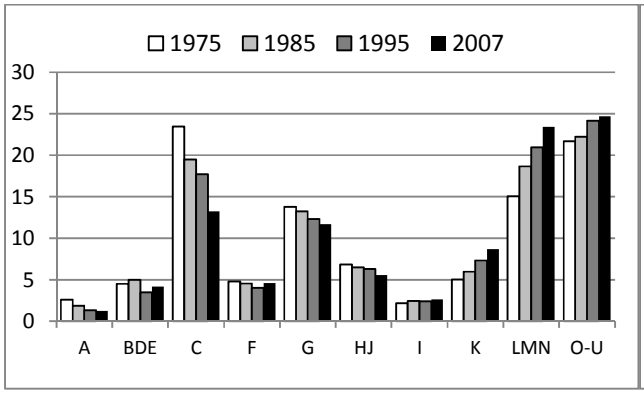
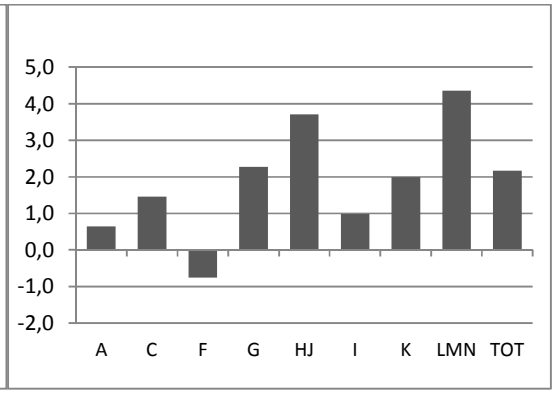


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

At the level of the total economy, Germany's productivity levels were slightly above the EU15 and improved somewhat over time. Relative to the EU15, productivity levels improved further in real estate and business activities (LMN) and wholesale and retail trade (G) only while some catching-up occurred in transportation and storage (HJ). In contrast, relative to the EU15, productivity levels deteriorated in agriculture (A) and manufacturing (C) and even fell below the EU15 in construction (F).

Figure 3: Productivity (VA per hour worked), levels, EU15=100

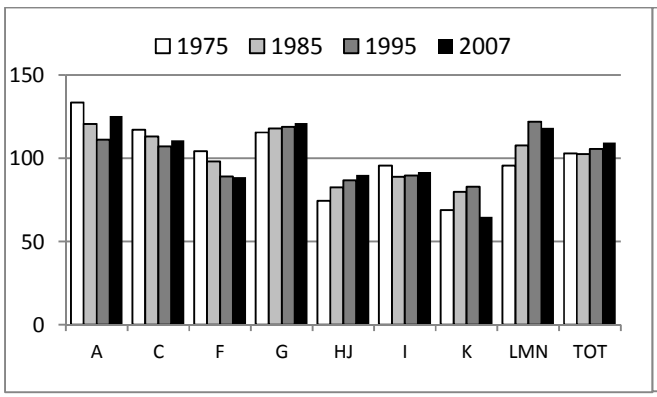
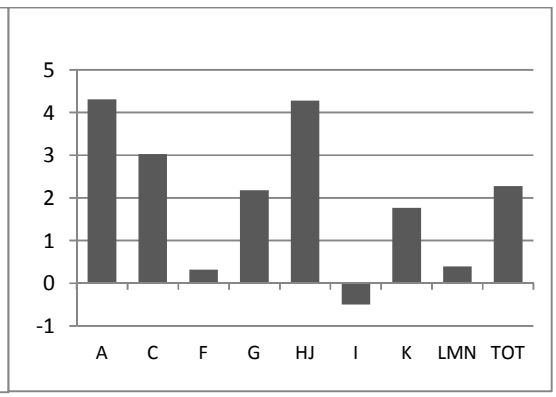


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

Despite the strong decline from 32% in 1975 to 19% in 2007, sectoral employment shares in total employment remained the highest in manufacturing (C), followed by wholesale and retail trade (G) with around 14% to 15% (Figure 5). The share in total employment increased the most in real estate and business activities (LMN) from 4% in 1975 to 14% in 2007 and accommodation and food service activities (I) from 2% in 1995 to 4% in 2007 but dropped significantly in agriculture (A) and construction (F). These changes also manifested in employment growth rates which declined in agriculture (A), manufacturing (C) and construction (F) by between -3% to -0.6% and increased particularly strongly in real estate and business activities (LMN) and accommodation and food service activities (I) by around 5% and 3%, respectively.

Figure 5: Share in Total Employment

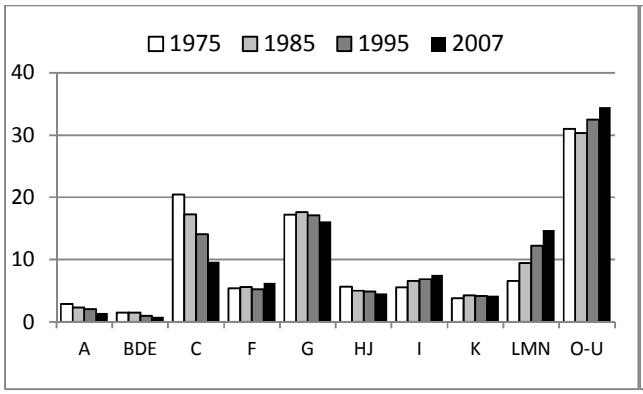
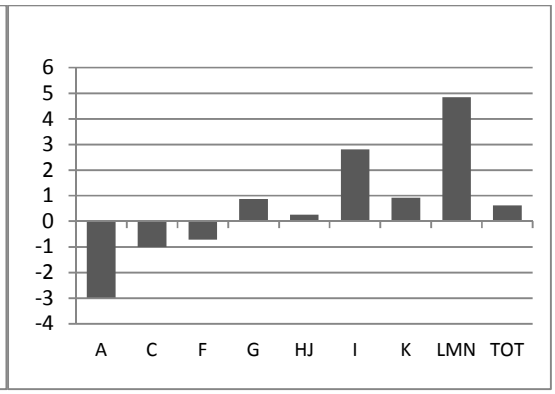


Figure 6: Employment, growth rates, annual average, 1975-2007



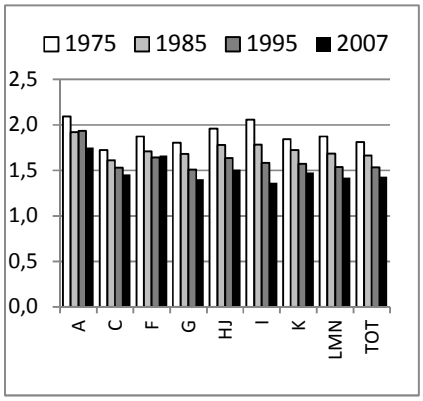
In absolute terms, employment expanded the most in real estate and business activities (LMN) (from 1.2 mn persons in 1975 to 5.6 mn persons in 2007) and accommodation and food service activities (I) (from 0.9 mn persons in 1975 to 1.2 mn persons in 2007). Among all sectors considered, despite the stark employment losses, manufacturing (C) was the prime employer in Germany in 2007, followed by wholesale and retail trade (G) and real estate and business activities (LMN).

Throughout all sectors considered, hours worked per employee consistently fell between 1975 and 2007, but fell the most in accommodation and food service activities (I) and the least in construction (F) and agriculture (A). In 2007, annual hours worked per employee stood at around 1400.

Table 1: Employment in sectors, 2007, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	2234	10433	2777	4493	2027	753	894	1237	32524
1985	1719	9768	2663	4814	2083	979	1028	1755	34234
1995	1079	8441	3236	5766	2181	1350	1255	3190	37599
2007	850	7543	2209	5929	2201	1823	1199	5622	39724

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

Except for construction (F), wholesale and retail trade (G) and financial and insurance activities (K), the share of medium educated workers in total employed increased in all sectors considered and increased the most in agriculture (A). In 2007, around 60% of total employed were medium educated workers. At the sectoral level, transportation and storage (HJ), wholesale and retail trade (G) and financial and insurance activities (K) had the highest shares of medium educated. The share of high educated in total employed increased in agriculture (A), manufacturing (C), construction (F) and financial and insurance activities (K) only. In 2007, around 25% of all employed were high educated workers and only in real estate and business activities (LMN) and financial and insurance activities (K) had above average shares of high educated.

Since 1995, the share of ICT capital stock in total capital stock increased in each sector, without exception. It quadrupled in agriculture (A), tripled in real estate and business activities (LMN) and doubled in manufacturing (C).

Figure 8: Medium educated, share in total employed, 1995, 2007, in %

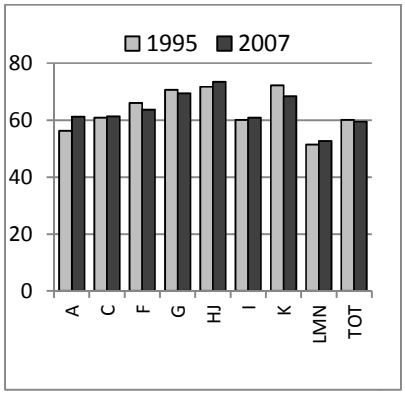


Figure 9: High educated, share in total employed, 1995, 2007, in %

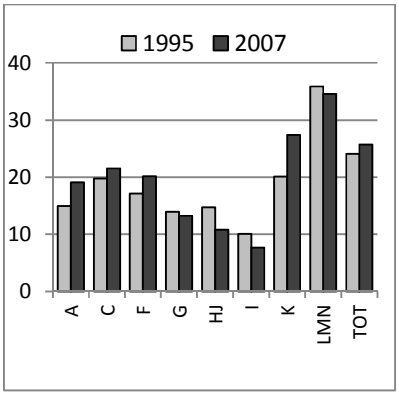
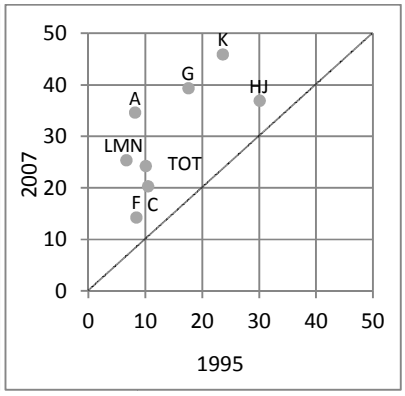


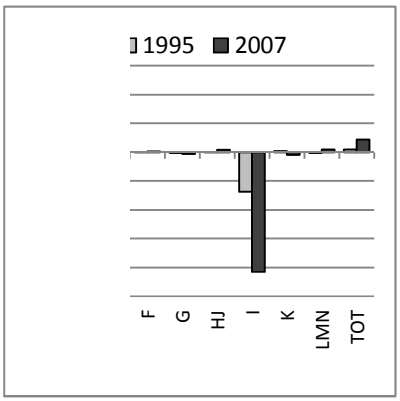
Figure 10: ICT capital stock, share in total capital stock in sector



Trade

In both, 1995 and 2007, Germany ran a trade surplus which even improved between 1995 and 2007. In 2007, the sectoral picture is more heterogeneous: strong and partly further deteriorating trade deficits prevail in agriculture (A) and accommodation and food service activities (I). Between 1995 and 2007, manufacturing (C) further improved its position as a net exporter.

Figure 11: Net trade, in % of gross output in sector



Country Fiche

Denmark (DK)

Value Added

The share of value added in total value added increased strongest in real estate and business activities (LMN), from 12% in 1975 to 19% in 2007 and only slightly in transportation and storage (HJ), from 6% in 1975 to 7% in 2007. In contrast, the value added share dropped the most in agriculture (A) (from around 6% in 1975 to 1% in 2007), but also in manufacturing (C), wholesale and retail trade (G) and decreased only slightly in construction (F). It remained rather stable in all other sectors. Real value added growth rates were slightly negative in accommodation and food service activities (I) only and above country average in wholesale and retail trade (G), transportation and storage (HJ), financial and insurance activities (K) and real estate and business activities (LMN).

Figure 1: Share in Total Value Added

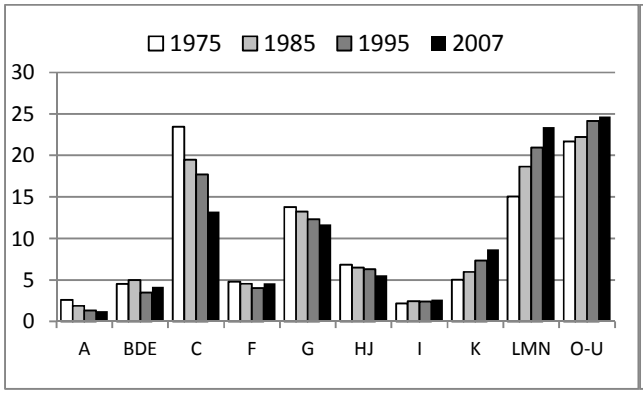
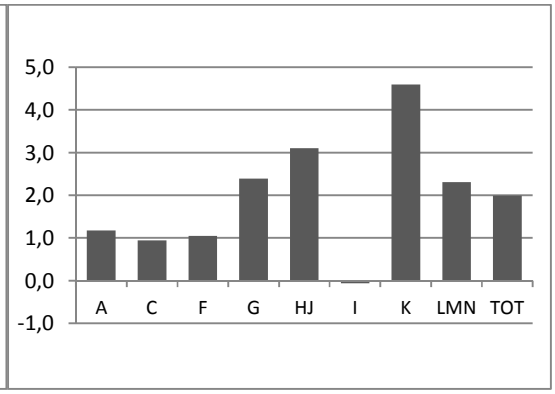


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

At the level of the total economy, between 1975 and 2007, the productivity level of Denmark moved slowly below the EU15 productivity level. Similarly, at the sectoral level, manufacturing (C), transportation and storage (HJ), accommodation and food service activities (I) and real estate and business activities (LMN) all lost and partly substantially fell behind the EU15 level. In contrast, construction (F) and financial and insurance activities (K) both succeeded in continuously catching up to and even surpassing the EU15 productivity level after 1975 and 1995, respectively.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

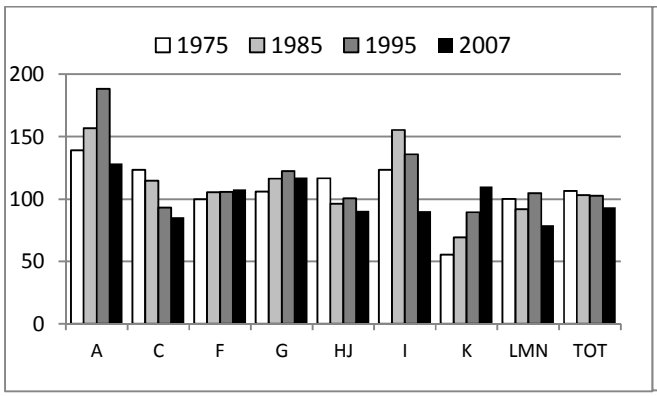
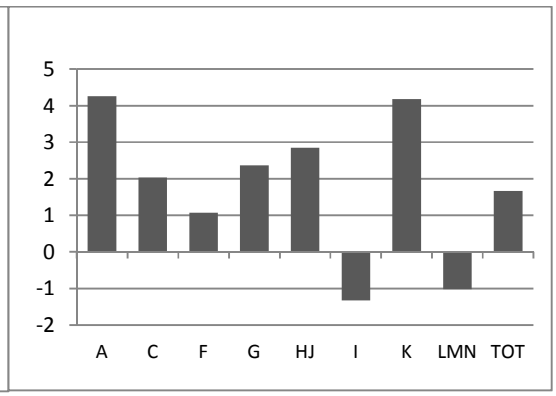


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

Between 1975 and 2007, the share of sectoral employment in total employment dropped strongest in manufacturing (C), from 22% in 1975 to 14% in 2007 and agriculture (A), from 9% in 1975 to 3% in 2007 but only slightly in construction (F) and wholesale and retail trade (G). It increased starkest in real estate and business activities (LMN), from 5% in 1975 to 13% in 2007, and slightly in accommodation and food service activities (I). This is also reflected in annual employment growth rates which were negative for agriculture (A) and manufacturing (C) and above country average for all remaining sectors, except for wholesale and retail trade (G).

Figure 5: Share in Total Employment

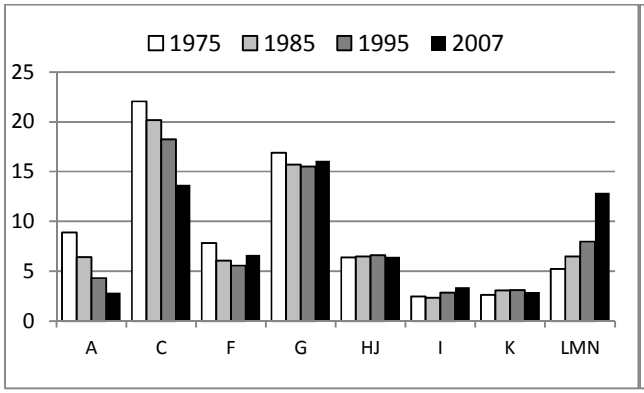
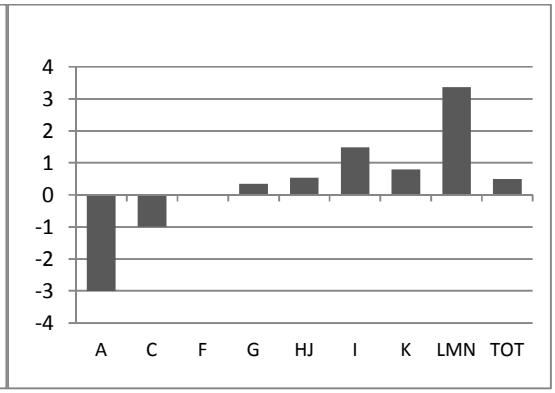


Figure 6: Employment, growth rates, annual average, 1975-2007



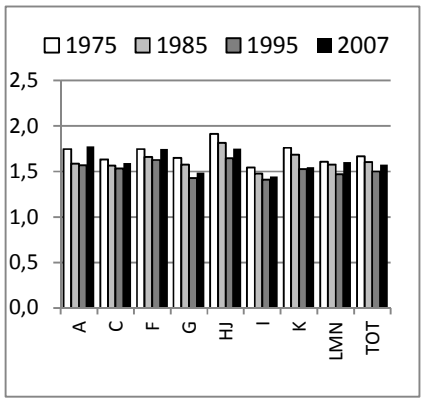
In absolute terms, employment more than halved in agriculture (A) (from 2.2 mn persons in 1975 to 0.8 mn persons in 2007) and decreased by around 30% in manufacturing (C) (from 5.5 mn persons in 1975 to 4 mn persons in 2007). Employment increased in all remaining sectors and most significantly in real estate and business activities (LMN) where employment almost quadrupled (from 0.1 mn persons in 1975 to almost 0.4 mn persons in 2007) and in accommodation and food service activities (I), where employment increased by around 60%.

Between 1975 and 1995, hours worked per employee decreased in all sectors. However, between 1995 and 2007, hours worked increased again in all sectors and even surpassed the 1975-level in agriculture (A) and returned to the 1975-level in construction (F) and real estate and business activities (LMN).

Table 1: Employment in sectors, 2007, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	219	545	193	418	158	61	65	129	2473
1985	168	527	158	410	169	61	80	169	2611
1995	114	479	146	408	173	75	81	210	2624
2007	83	397	193	466	187	99	84	373	2900

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

Between 1995 and 2007, the share of medium educated workers in total employed decreased in all sectors, without exception. It dropped the most in financial and insurance activities (K) and the least in construction (F). In 2007, only real estate and business activities (LMN) had below country average shares of medium educated workers while, with 60%, construction (F) had the highest share of medium educated workers in total employed. Moreover, except for construction (F), all sectors either maintained or increased their shares of high educated workers in total employed. The starkest increases occurred in financial and insurance activities (K) and agriculture (A). In 2007, only real estate and business activities (LMN) and financial and insurance activities (K) had above average high educated workers shares.

Between 1995 and 2007, all sectors experienced improvements in the shares of their ICT capital stock in total capital stock. At the sectoral level, the share of ICT capital stock in total increased most dramatically in financial and insurance activities (K), wholesale and retail trade (G) and real estate and business activities (LMN).

Figure 8: Medium educated, share in total employed, 1995, 2007, in %

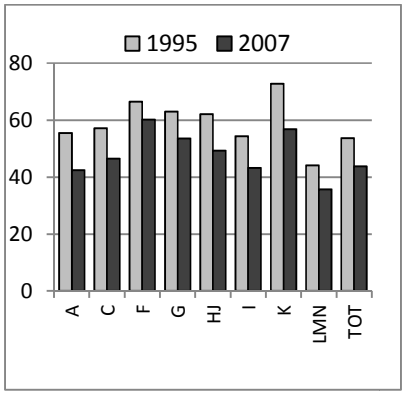


Figure 9: High educated, share in total employed, 1995, 2007, in %

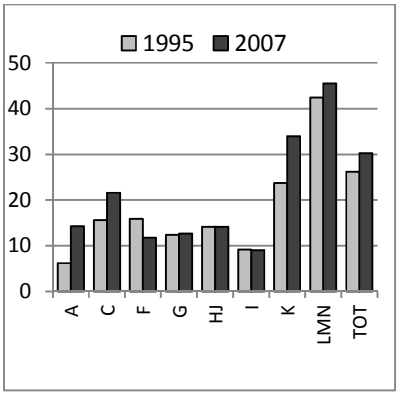
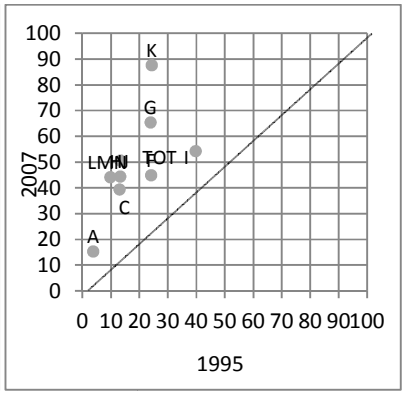
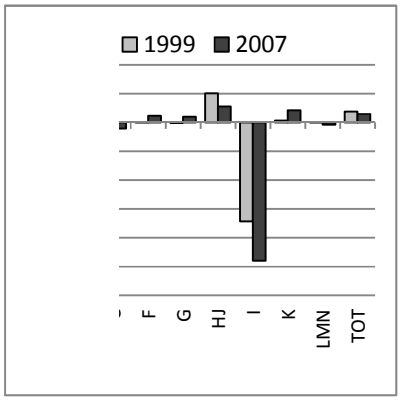


Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector



In 1999 and 2007, Denmark ran trade surpluses, which slightly decreased in 2007, however. At the sectoral level, agriculture (A), transportation and storage (HJ) and financial and insurance activities (K) all remained net exporters, even though transportation and storage (HJ) slightly lost ground. Moreover, in 2007, agriculture (A) became the main net exporter among all sectors considered. In contrast, accommodation and food service activities (I) remained the major net importer (among all sectors considered) while construction (F) and wholesale and retail trade (G) both moved from being net importers in 1999 to being net exporters in 2007. Manufacturing, on the other hand, was a net exporter in 1999 but was a net importer in 2007.

Country Fiche

Estonia (EE)

Value Added

Between 1995 and 2007, the share of value added in total value added decreased only in agriculture (A) (from around 6% in 1995 to 3% in 2007), in manufacturing (C) (from 21% in 1975 to around 17% in 2007) and in transportation and storage (HJ) (from around 12% in 1995 to 11% in 2007). With the exception of accommodation and food service activities (I) – which maintained constant shares - all other sectors experienced increasing shares of valued added. The starkest increases occurred in real estate and business activities (LMN), from 16% in 1995 to around 20% in 2007. Real value added growth rates were positive in all sectors considered and above country average in all sectors except for agriculture (A), manufacturing (C) and real estate and business activities (LMN)

Figure 1: Share in Total Value Added

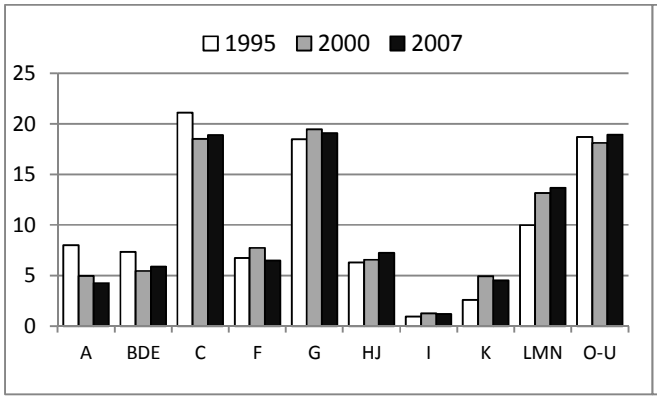
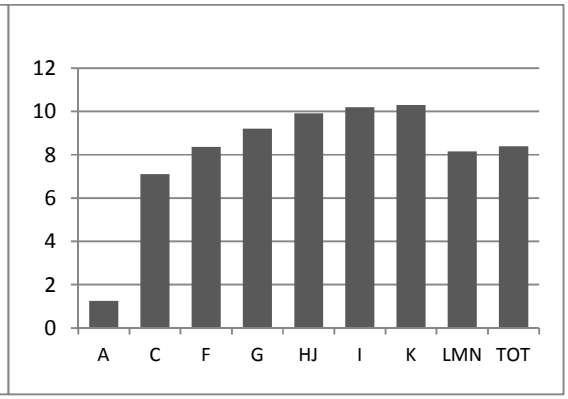


Figure 2: Value Added, real growth rates, annual average 1995-2007



Productivity

At the level of the total economy, the productivity level of Estonia remained significantly below the EU15 level, even though some catching up occurred. However, in 2007, Estonian productivity levels still only reached around 40% of the EU15 level. At the sectoral level, only financial and insurance activities (K) managed to catch up to and slightly surpass EU15 productivity levels, all other sectors are still in the process of catching up to EU15 levels.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

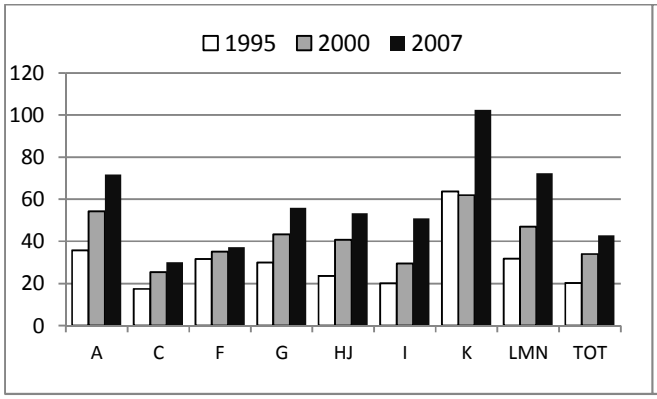
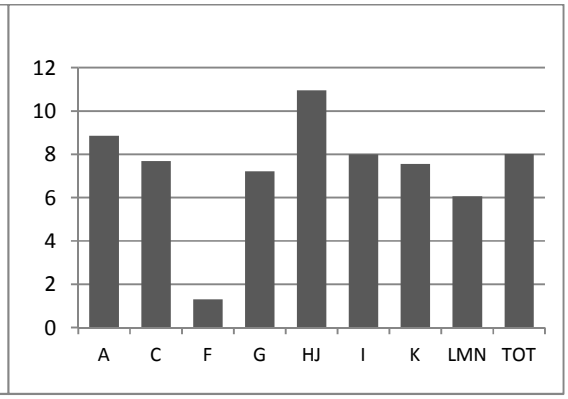


Figure 4: Productivity (VA per hour worked, growth, annual average 1995-2007



Employment

Except for agriculture (A), manufacturing (C) and transportation and storage (HJ), shares in total employment increased in all sectors considered. The share in total employment increased the most in construction (F) from around 5% in 1995 to around 11% in 2007. This is also reflected in annual employment growth rates which were negative for agriculture (A), manufacturing (C) and transportation and storage (HJ) only and above country average for all remaining sectors.

Figure 5: Share in Total Employment

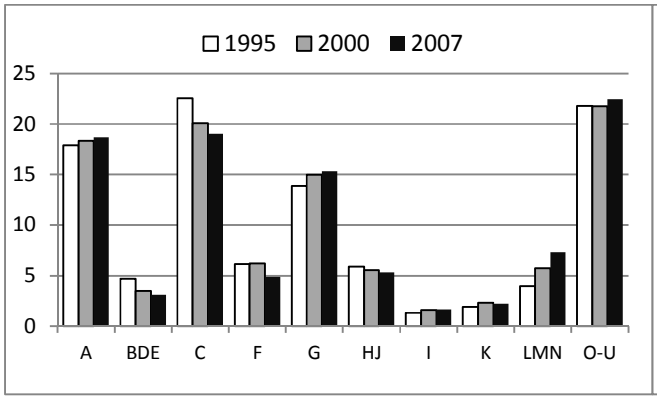
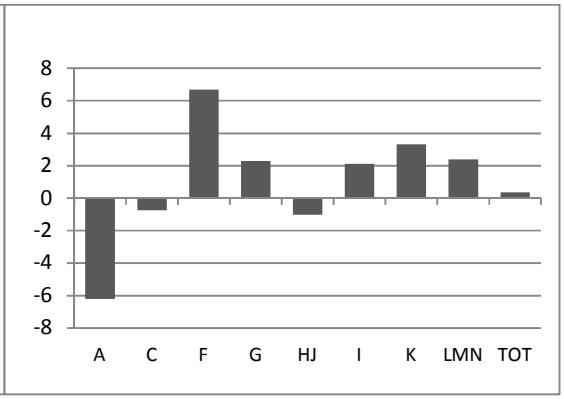


Figure 6: Employment, growth rates, annual average, 1995-2007



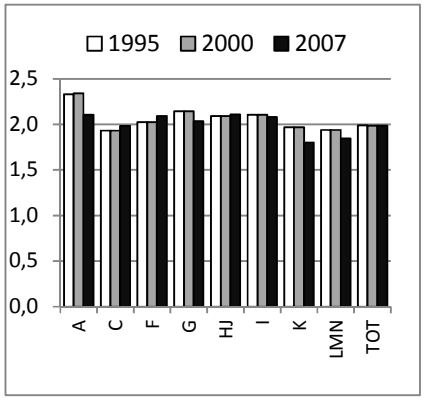
In absolute terms, employment halved in agriculture (A) (from 0.06 mn persons in 1995 to 0.03 mn persons in 2007) and slightly decreased both in manufacturing (C) (from 0.2 mn persons in 1995 to 0.14 mn persons in 2007) and in transportation and storage (HJ) (from 0.063 mn persons in 1995 to 0.056 mn persons in 2007). In contrast, employment doubled in construction (F) (from 0.034 mn persons in 1995 to 0.074 mn persons in 2007) and slightly increased in all other sectors.

Between 1995 and 2007, hours worked decreased in all sectors except for manufacturing (C), construction (F) and transportation and storage (HJ). In 2007, hours worked were below the overall average in financial and insurance activities (K) and real estate and business activities (LMN) only.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1995	64	157	34	80	63	17	7	31	634
2000	41	129	39	79	56	20	8	40	572
2007	30	144	74	105	56	22	10	41	662

Figure 7: Annual hours worked per employed, in thousand



Skill formation

Between 1995 and 2007, without exception, the share of medium educated workers in total employed increased in all sectors. The starkest increases occurred in agriculture (A) and in accommodation and food service activities (I). In 2007, only financial and insurance activities (K) and real estate and business activities (LMN) had shares of medium educated workers in total employed below the country average of around 66%. In contrast, the share of high educated workers in total employed fell in all sectors, without exception and dropped the most in accommodation and food service activities (I), from close to 35% in 1995 to around 15% in 2007, and in construction (F), from 32% in 1995 to around 19% in 2007. In 2007, all sectors except for financial and insurance activities (K) and real estate and business activities (LMN) had shares of high educated in total employed below the country average of around 35%.

Figure 8: Medium educated, share in total employed, 1997, 2007, in %

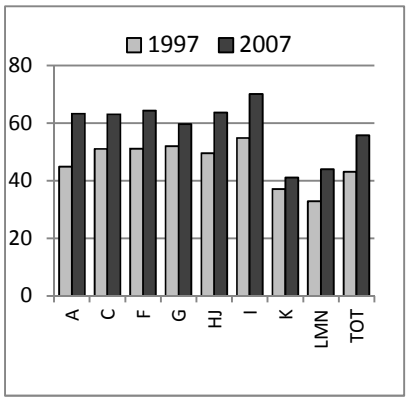
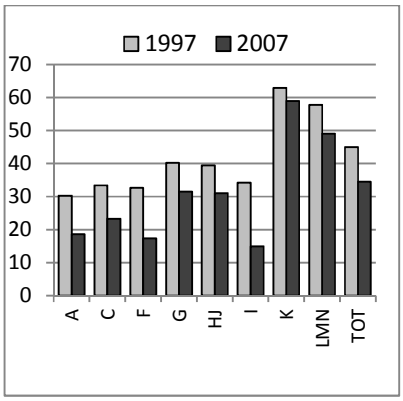


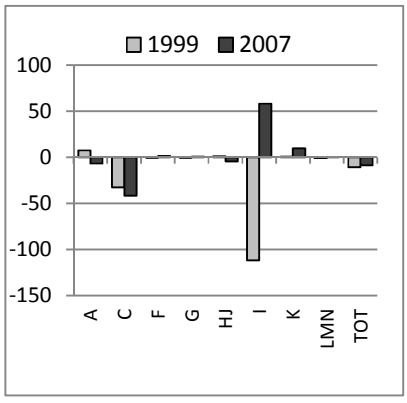
Figure 9: High educated, share in total employed, 1997, 2007, in %



Trade

Figure 10: Net trade, in % of gross output in sector

In both, 1999 and 2007, Estonia ran trade deficits. At the sectoral level, this was matched by manufacturing (C), wholesale and retail trade (G) and real estate and business activities (LMN). In contrast, construction (F), accommodation and food service activities (I) and financial and insurance activities (K) all moved from being net importers in 1999 to being net exporters in 2007. The opposite was true for agriculture (A) and transportation and storage (HJ) which both became net importers after 1999. In 2007, among all sectors considered, accommodation and food service activities (I) was the economy's major net exporter.



Country Fiche

Greece (EL)

Value Added

The share of value added in total value added increase in all sectors except for manufacturing (C) which dropped from around 25% in 1975 to 11% in 2007 and agriculture (A). Between 1975 and 2007, both financial and insurance activities (K) and real estate and business activities (LMN) experienced almost continuous increases while in all other sectors the share of value added jumped to higher levels in 2007 only. Real value added growth rates were negative in agriculture (A) only and were above country level in all other sectors except for construction (F) and accommodation and food service activities (I).

Figure 1: Share in Total Value Added

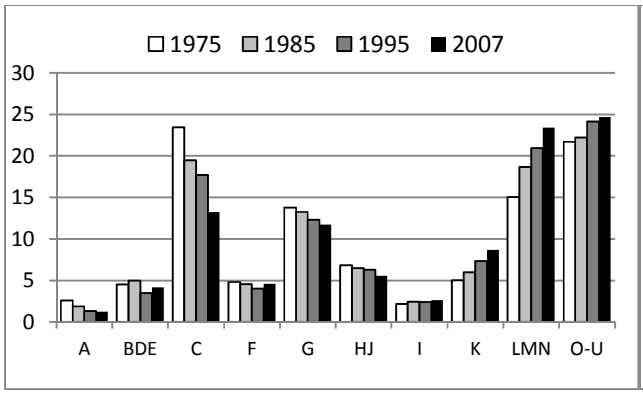
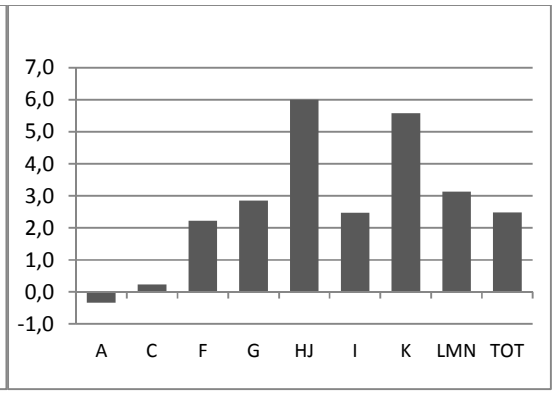


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

At the level of the total economy, the productivity level of Greece remained significantly below the EU15 level and fell behind even further over time. At the sectoral level, agriculture (A), wholesale and retail trade (G), accommodation and food service activities (I), financial and insurance activities (K) and real estate and business activities (LMN) all experienced losses in productivity but only accommodation and food service activities (I) and financial and insurance activities (K) managed to stay above the EU15 productivity level in 2007.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

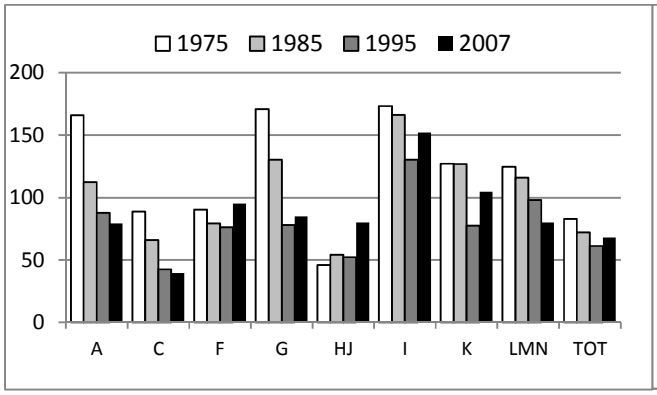
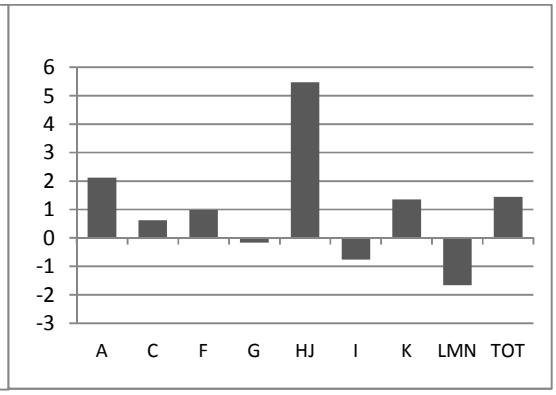


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

Between 1975 and 2007, the share in total employment decreased in agriculture (A), from 34% in 1975 to 11% in 2007 and in manufacturing (C), from 20% in 1975 and 1985 to 12% in 2007. It increased the most in wholesale and retail trade (G), from 9% in 1975 to 15% in 2007 and in real estate and business activities (LMN), from 1% in 1975 to 8% and more modestly in financial and insurance activities (K) and accommodation and food service activities (I). All other sectors remained more or less stable shares in total value added. These developments are also reflected in annual employment growth rates which were negative for agriculture (A) and manufacturing (C) only and below country average in transportation and storage (HJ) only.

Figure 5: Share in Total Employment

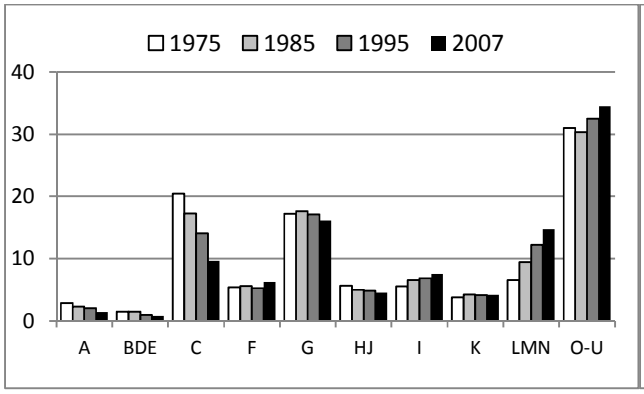
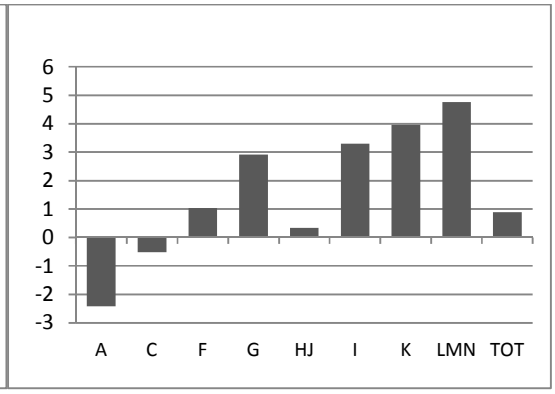


Figure 6: Employment, growth rates, annual average, 1975-2007



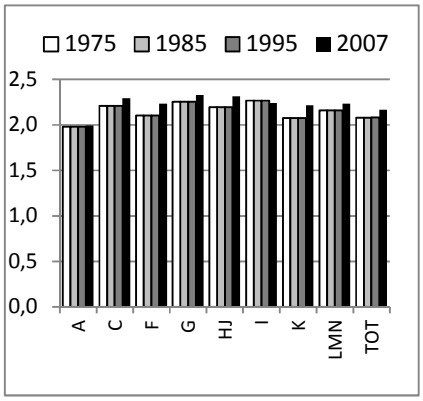
In absolute terms, between 1975 and 2007, employment more than halved in agriculture (A) (from 1.1 mn persons in 1975 to 0.5 mn persons in 2007). In contrast, employment more than quadrupled in real estate and business activities (LMN) (from 0.07 mn persons in 1975 to 0.31 mn persons in 2007), tripled in financial and insurance activities (K) (from 0.03 mn persons in 1975 to 0.1 mn persons in 2007), almost tripled in accommodation and food service activities (I) (from 0.1 mn persons in 1975 to almost 0.3 mn persons in 2007) and more than doubled in wholesale and retail trade (G) (from 0.3 mn persons in 1975 to 0.7 mn persons in 2007).

Between 1975 and 1995, hours worked per employee remained unchanged in all sectors and between 1995 and 2007, hours worked jumped to higher levels in all sectors except for agriculture (A).

Table 1: Employment in sectors, 2007, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	1079	649	263	263	256	103	30	70	3173
1985	992	734	244	376	266	147	44	103	3590
1995	749	625	252	553	264	224	82	184	3820
2007	493	551	366	660	285	290	103	309	4206

Figure 7: Annual hours worked per employed, in thousand



Skill formation

The share of medium educated workers in total employed increased in all sectors except for financial and insurance activities (K) and real estate and business activities (LMN). The starkest increases occurred in accommodation and food service activities (I) (32% in 1975 to 50% in 2007), agriculture (A) (from 8% in 1975 to 19% in 2007) and construction (F) (from 20% in 1975 to 30% in 2007). In 2007, only agriculture (A), construction (F) and real estate and business activities (LMN) had below average shares of medium educated workers in total employed. In contrast, the share of high educated workers in total employed increased in all sectors and the strongest in financial and insurance activities (K) (from 32% in 1975 to around 48% in 2007). In 2007, all sectors except for financial and insurance activities (K) and real estate and business activities (LMN) had below average shares of high educated workers in total.

Figure 8: Medium educated, share in total employed, 1995, 2007, in %

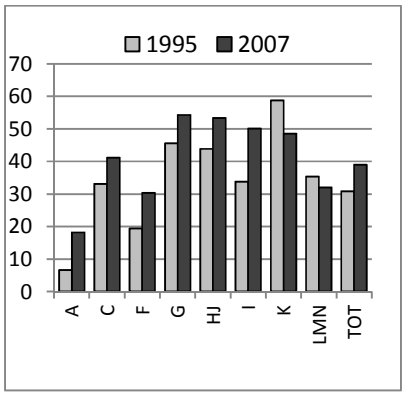
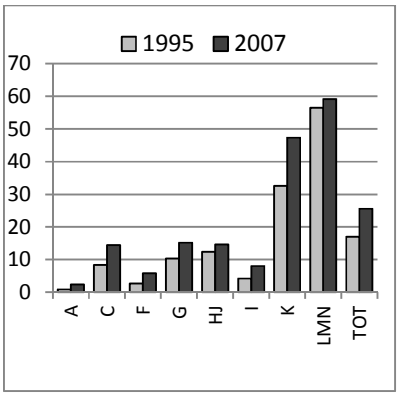
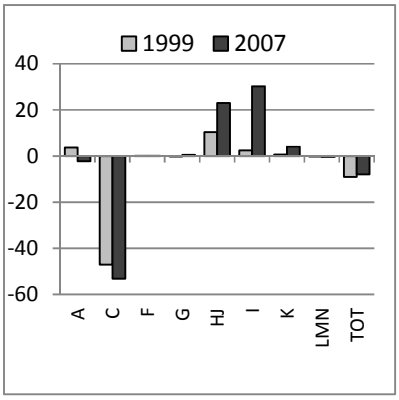


Figure 9: High educated, share in total employed, 1995, 2007, in %



Trade

Figure 10: Net trade, in % of gross output in sector



Both, in 1999 and 2007, Greece ran trade deficits. However, from 1999 to 2007, the trade deficit slightly improved. At the sectoral level, manufacturing (C), construction (F) and real estate and business activities (LMN) were all net importers in 1999 as well as in 2007. Moreover, manufacturing (C) was the prime net importer among all sectors considered. In contrast, wholesale and retail trade (G) moved from being a net importer in 1999 to being a net exporter in 2007, the opposite holds true for agriculture (A) which started out as net exporter in 1999 but was a net importer in 2007 already. Transportation and storage (HJ), accommodation and food service activities (I) and financial and insurance activities (K) all strengthened their positions as net exporters.

Country Fiche

Croatia (HR)

Value Added

In Croatia the share of manufacturing (C) in total value added fell quite substantially from 23% in 1995 to 17% in 2007. The share of agriculture dropped in this period from 7.5% to 5%. Also the shares of mining, energy and water supply (BDE) and accommodation and food service activities (I) declined slightly, whereas the shares of the remaining sectors increased or have been rather stagnant as it was the case for wholesale and retail trade (G) and public and other service activities (O-U). Overall growth in value added was relatively high with more than 4%, but the pattern across sectors is heterogeneous. Whereas value added growth rate in construction (F) with 7%, wholesale and retail trade (G) with 6.5% and transportation, storage and communication (HJ) with 6% was very high, it amounted to about 4% in all other sectors except for agriculture with only 1.5%.

Figure 1: Share in Total Value Added

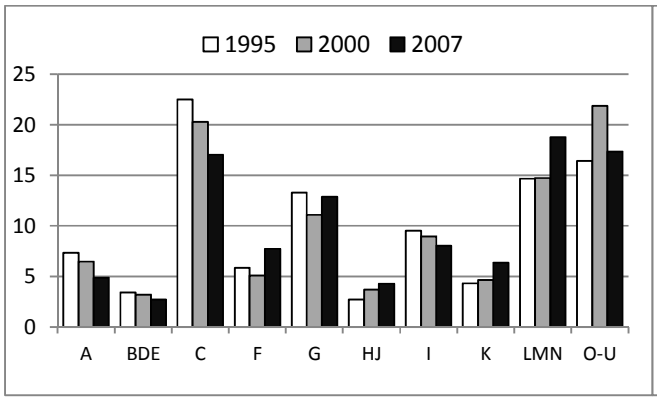
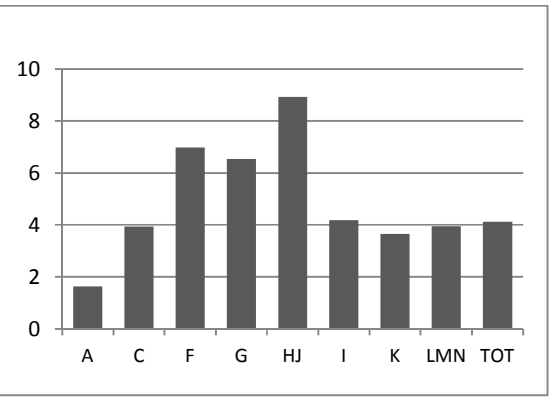


Figure 2: Value Added, real growth rates, annual average 1995-2007

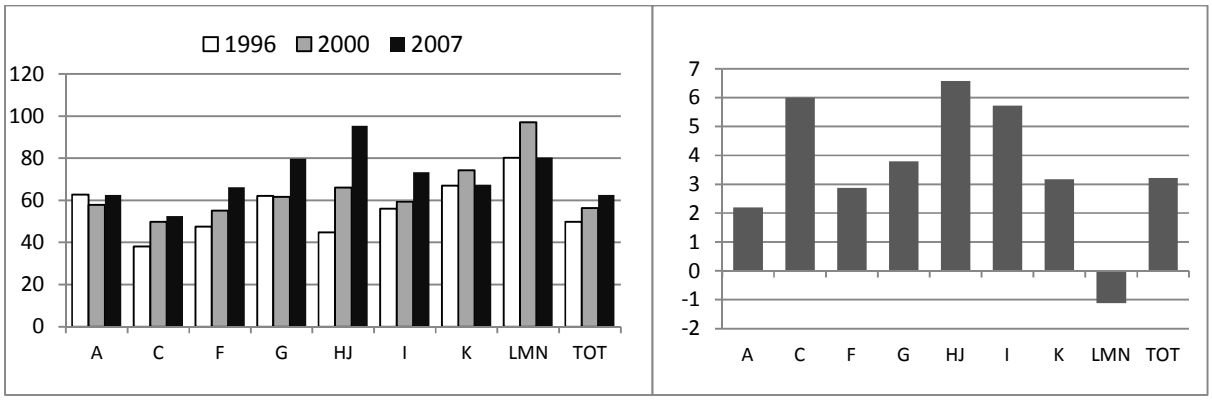


Productivity

Productivity levels in comparison to EU-15 (calculated on the basis of persons employed not hours worked!) increased from 50% in 1996 to slightly above 60% in 2007. The pattern across industries however is diversified. In manufacturing (C), construction (F), wholesale and retail trade (G), accommodation and food service activities (I) and transportation, storage and communication (HJ) strong catching up in productivity took place. In the latter sector it even reached almost EU-15 levels. At the same time, low growth in productivity in agriculture (A), financial and insurance activities (K) and real estate and business activities (LMN) stalled catching up in those sectors.

Figure 3: Productivity (VA per employed), levels, EU15=100

Figure 4: Productivity (VA per employed, growth, annual average 1991-2007

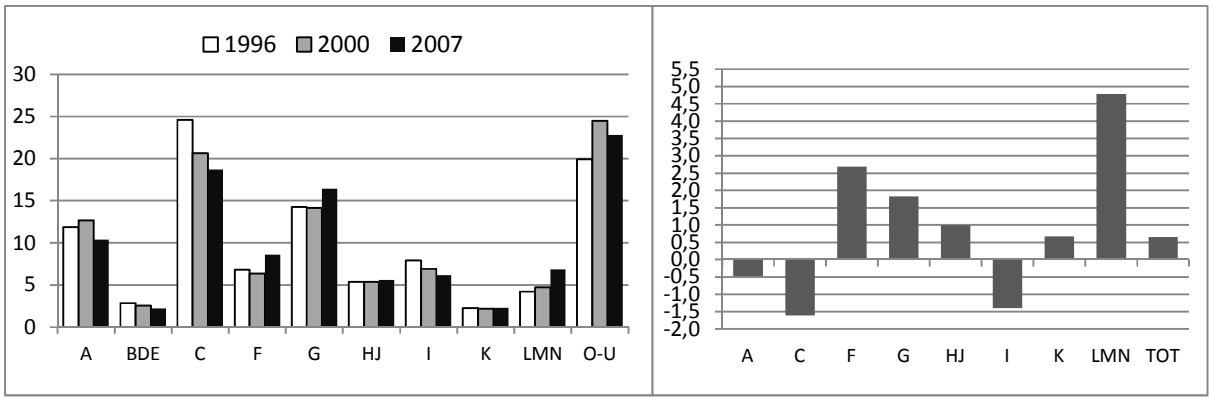


Employment

Employment shares have been rather constant in general except for manufacturing (C) where it dropped from 25% to 18%. Employment shares slightly declined from 12 to 10% in agriculture (A) and in accommodation and food service activities (I) from 8% to 6%. In all other sectors employment remained constant or increased, from 6.8% to 8.6% in construction, from 14% to 16.5% in construction (F) and from 4.2% to 6.8% in real estate and business activities (LMN). Overall employment declined by 0.5% annually. A strong decline occurred in construction (C) and accommodation and food service activities (I) with about -1.5% and a slight in agriculture (A) with -0.5%, whereas strong increases took place in real estate and business activities (LMN) with 4.8%, construction (F) with 2.7% and wholesale and retail trade (G) with 1.8%.

Figure 5: Share in Total Employment

Figure 6: Employment, growth rates, annual average, 1996-2007



In absolute terms this means that the number of employed persons increased slightly from 1.5 mn in 1996 to 1.6 mn in 2007 with a decline to 1.4. mn from 1996 to 2000. In manufacturing (C) 303 ths persons are employed followed by 266 ths in wholesale and retail trade (G) and agriculture (A) with 168 ths. The smallest sector in terms of employment is financial and insurance activities accounting for 37 ths pesons employed.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1996	178	368	102	214	80	118	34	63	1497
2000	177	289	89	198	75	97	30	66	1400
2007	168	303	140	266	90	100	37	110	1618

Skill formation

The share of medium educated in total employed is at a level of 60% and constant since 2002. Significantly higher shares are seen in wholesale and retail trade (G), transportation, storage and communication (HJ) and accommodation and food service activities (I). Only in agriculture (A) the share is with about 35% significantly lower. The share of high educated employed persons grew from slightly above 18% to about 19.5% with increases in be majority of sectors. Shares are particularly high in financial and insurance activities (K) and real estate and business activities (LMN) with about 35% in both sectors. The shares are substantially below average in agriculture (A) with 3%, in accommodation and food service activities (I) with 6% and construction (F) with 8%.

Figure 7: Medium educated, share in total employed, 2002, 2007, in %

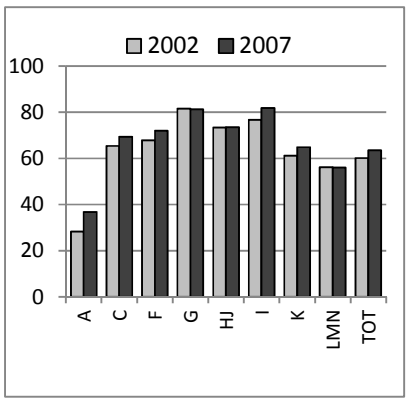
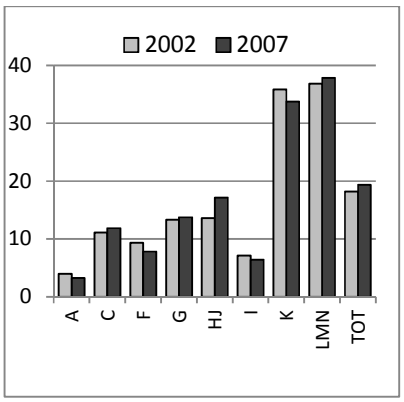


Figure 8: High educated, share in total employed, 2002, 2007, in %



Country Fiche

Spain (ES)

Value Added

Except for agriculture (A) and manufacturing (C), the share of value added in total value added improved in all sectors and the most in real estate and business activities (LMN) (from 9% in 1975 to 17% in 2007) and accommodation and food service activities (I) (from 4% in 1975 to 7% in 2007). In 2007, around 17% of total value came from real estate and business activities (LMN) and around 15% came from manufacturing (C). Real value added growth rates were positive in all sectors considered and above country average in transportation and storage (HJ), financial and insurance activities (K) and real estate and business activities (LMN).

Figure 1: Share in Total Value Added

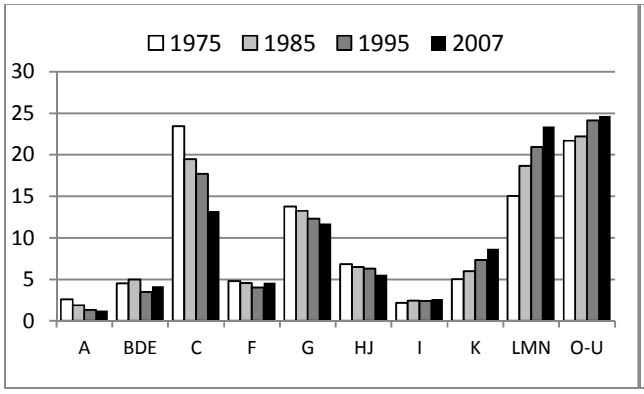
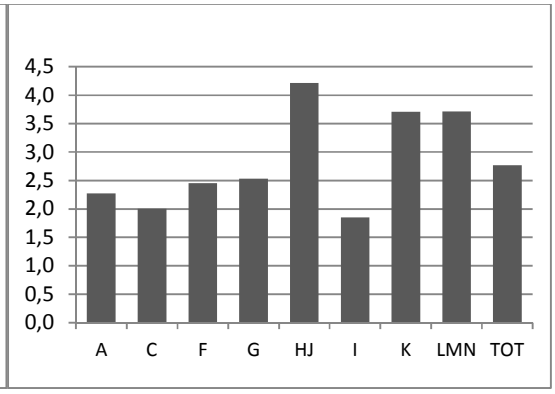


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

At the level of the total economy, the productivity level of Spain remained at or below the EU15 level. Between 1975 and 2007, productivity levels improved (relative to the EU15 level) in agriculture (A) only while manufacturing (C), wholesale and retail trade (G), transportation and storage (HJ) and real estate and business activities (LMN) all lost relative to the EU15 level. Real estate and business activities (LMN) lost most dramatically and, in 2007, even stayed behind the EU15 in terms of productivity. Generally, accommodation and food service activities (I) remained almost twice as productive as the EU15.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

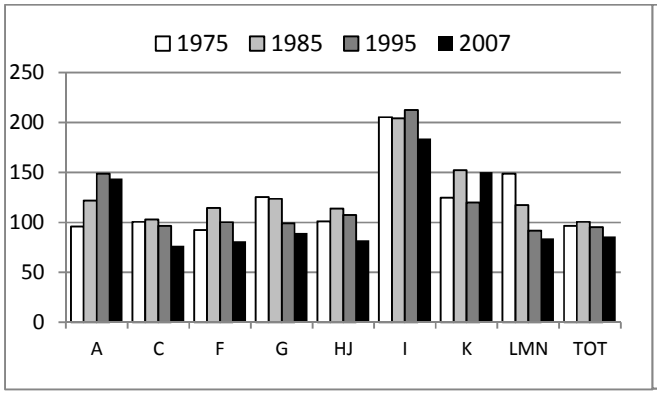
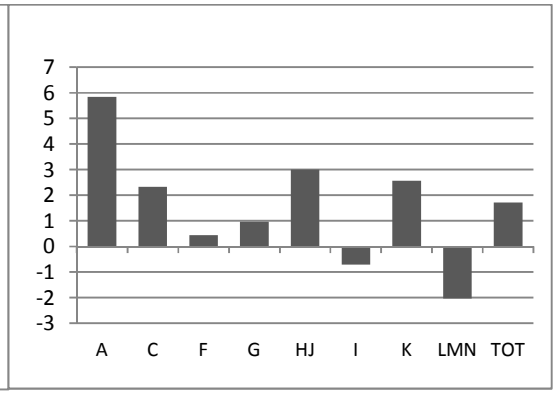


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

The share in total employment plunged in agriculture (A) from around 21% in 1975 to only 4% in 2007 and in manufacturing (C) from 23% in 1997 to 15% in 2007. And while transportation and storage (HJ) and financial and insurance activities (K) maintained their shares, construction (F), wholesale and retail trade (G), accommodation and food service activities (I) and real estate and business activities (LMN) all extended their shares, most significantly in real estate and business activities (LMN) from 2% in 1975 to 9% in 2007. This is also reflected in annual employment growth rates which were negative for agriculture (A) and above country average for all remaining sectors, except for manufacturing (C).

Figure 5: Share in Total Employment

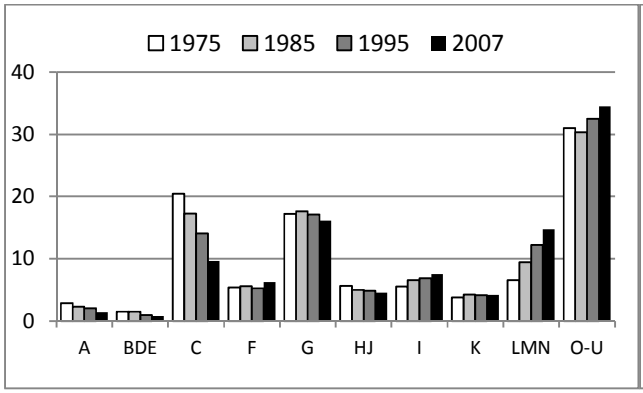
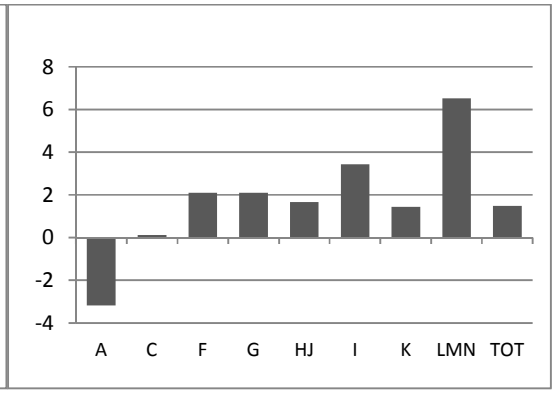


Figure 6: Employment, growth rates, annual average, 1975-2007



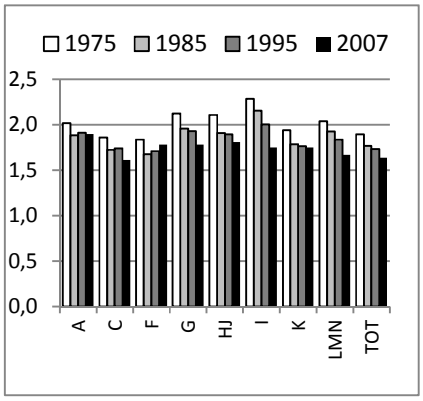
In absolute terms, employment decreased in agriculture (A) only (from 2.6 mn persons in 1975 to 0.9 mn persons in 2007). In contrast, employment increased the most in real estate and business activities (LMN) (from 0.2 mn persons in 1975 to 1.9 mn persons in 2007) and accommodation and food service activities (I) (from 0.5 mn persons in 1975 to 1.4 mn persons in 2007). In 2007, the manufacturing sector (C) was the major employer among all sectors considered.

Between 1975 and 2007, hours worked per employee consistently fell throughout all sectors considered. Hours worked per employee decreased the most in accommodation and food service activities (I) and the least in construction (F).

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	2605	2971	1391	1545	661	484	246	249	12773
1985	1791	2377	850	1523	664	551	284	351	11560
1995	1070	2453	1241	1998	736	794	335	871	13569
2007	925	3092	2711	3007	1120	1428	387	1889	20550

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated workers in total employed increased in all sectors except for financial and insurance activities (K). It increased the most in transportation and storage (HJ), from 20% in 1995 to 31% in 2007 and in construction (F), from 10% in 1995 to 21% in 2007 and the least in real estate and business activities (LMN), from around 21% in 1995 to only 22% in 2007. Furthermore, in 2007, real estate and business activities (LMN), construction (F), manufacturing (C) and agriculture (A) had below average medium educated worker shares. In contrast, the share of high educated workers in total employed increased in all sectors and the strongest in financial and insurance activities (K) (from 38% in 1995 to around 60% in 2007). And in 2007, only financial and insurance activities (K) and real estate and business activities (LMN) had above average high educated worker shares.

Except for agriculture (A), all sectors experienced improvements in the shares of their ICT capital stock in total capital stock. Wholesale and retail trade (G), construction (F) and real estate and business activities (LMN) all doubled their shares between 1995 and 2007.

Figure 8: Medium educated, share in total employed, 1995, 2007, in %

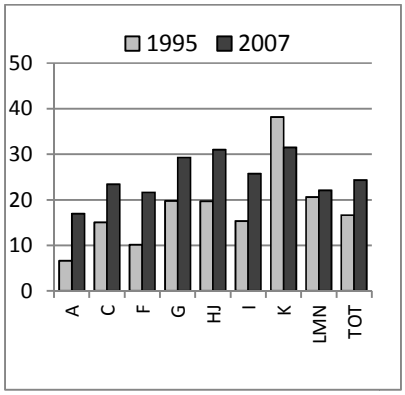


Figure 9: High educated, share in total employed, 1995, 2007, in %

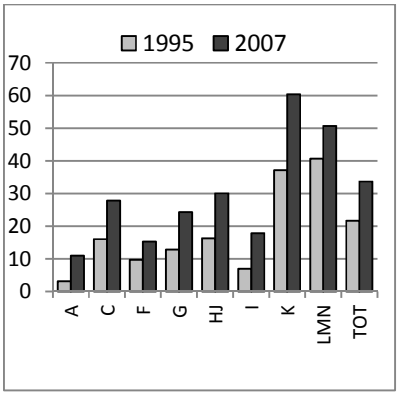
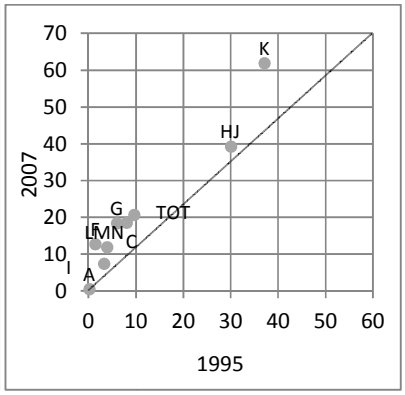


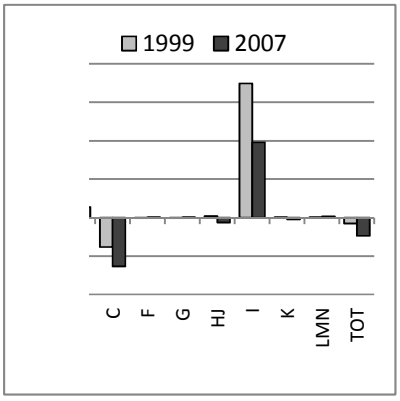
Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector

Between 1999 and 2007, Spain maintained a trade deficit which deteriorated further in 2007. At the sectoral level, agriculture (A) slightly strengthened its position as net exporter while accommodation and food service activities (I) lost some trade surplus but still remained its position as prime net exporter. In contrast, manufacturing (C) extended its trade deficit even further, rendering it the prime net importer among all sectors considered.



Country Fiche

Finland (FI)

Value Added

The share of manufacturing in total value added decreased only slightly from about 26% to 24% over the 30 years considered. More dramatic changes can be seen in agriculture (A) which dropped from 11% to about 3% and real estate and business activities (LMN) which increased from 10% to 18%. Also the share of construction (F) declined from 10 to 6%. The share of wholesale and retail trade (G) remained rather constant (from 12 to 10%) and the share of transportation, storage and communication (HJ) increased from 8 to10 %. The share of sector accommodation and food service activities (I) is at about 2% roughly constant whereas the share of financial and insurance activities (K) increased to 4% and then declined to 3%. Total employment was growing at about 2.8% with higher growth rates achieved in manufacturing (C) with 4.5%, transportation, storage and communication (HJ) with 4% and real estate and business activities (LMN) with 3.1%. There was no real growth in construction (C) and only modest growth in manufacturing (A) with 1.2% and accommodation and food service activities (I) with 0.6%.

Figure 1: Share in total value added

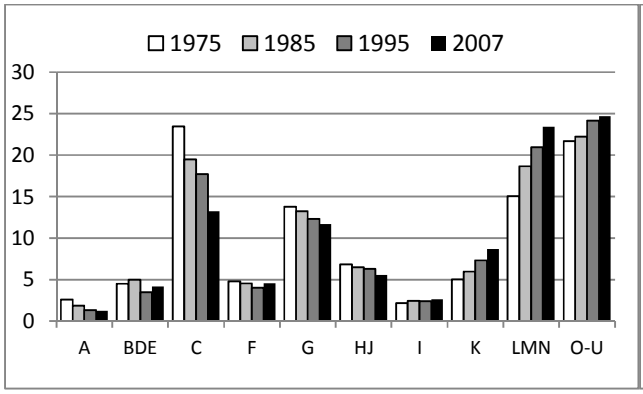
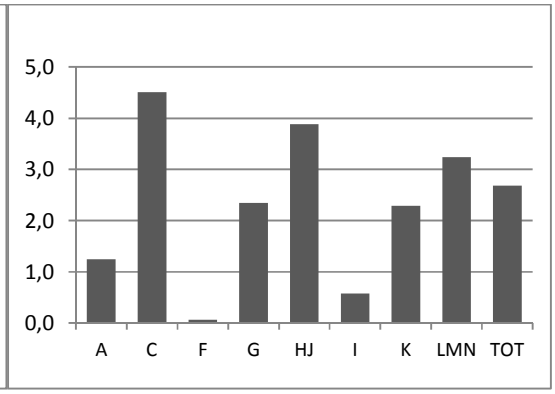


Figure 2: Value added, real growth rates, annual average 1975-2007



Productivity

The total economy productivity levels converged to EU-15 level starting from about 80%. It leapfrogged in agriculture (A), manufacturing (C) and financial and insurance activities (K) where it however returned to EU-15 level in 2007. Productivity was always higher in wholesale and retail trade (G) and lower in construction (F) and accommodation and food service activities (I).

Figure 3: Productivity (VA per hour worked), levels, EU15=100

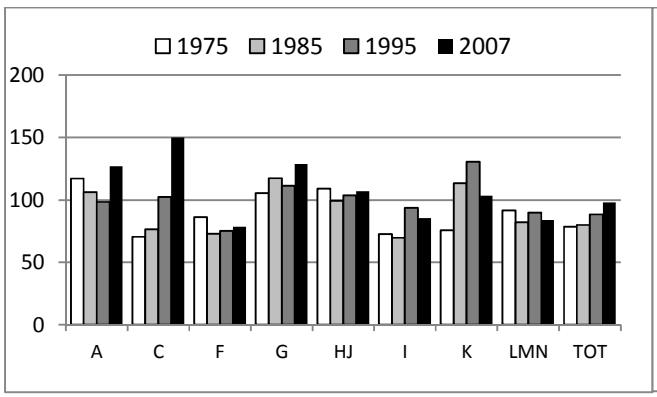
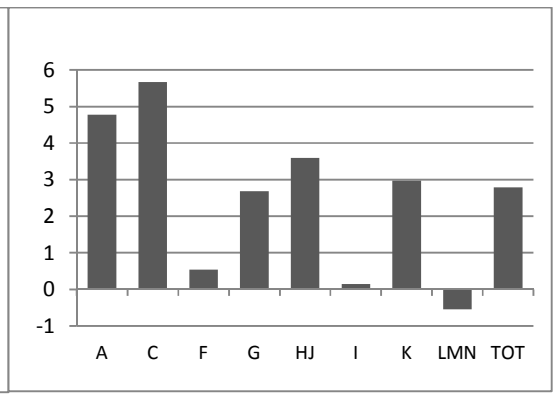


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

Employment shares in manufacturing (C) declined much stronger compared to value added shares, namely from 25% to 17% and in agriculture (A) from 15% to 5%. The only increase occurred in real estate and business activities (LMN) where shares increased from 4% to 12%. The shares in the remaining sectors remained roughly constant though with some changes in construction (F) where these declined from 9.5% in 1975 to slightly above 5% in 1995 to again 7% in 2007. Total employment growth was almost zero over the whole period. Employment declined in agriculture (A) with a rate of -3%, and in manufacturing (C) and financial and insurance activities (K) with slightly above -1%. Strong employment growth occurred in real estate and business activities with 4%.

Figure 5: Share in Total Employment

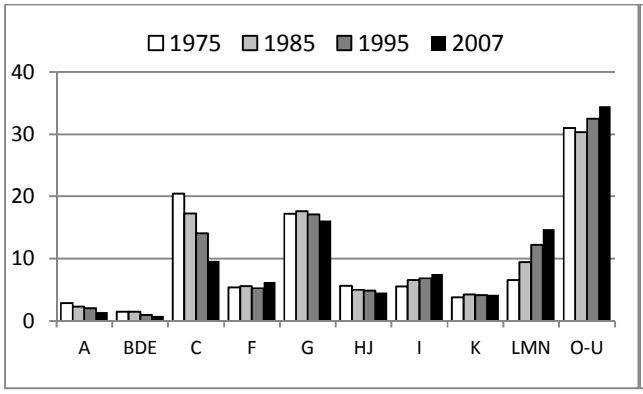
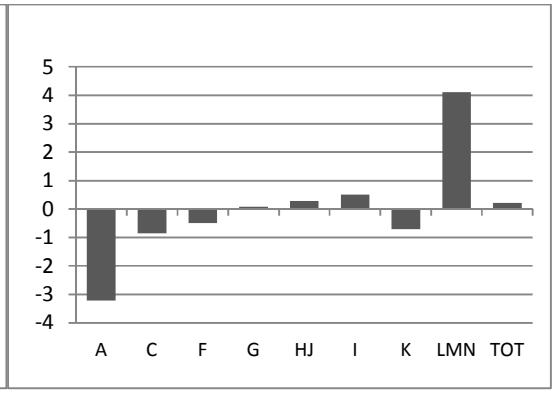


Figure 6: Employment, growth rates, annual average, 1975-2007

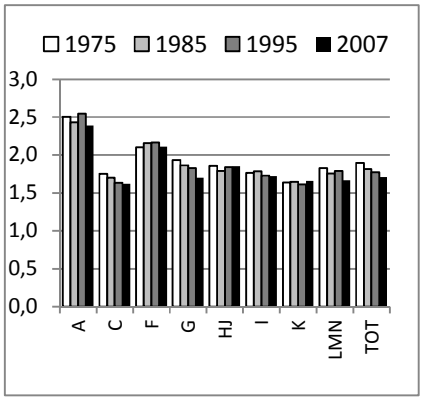


Total employment therefore increased from 2.3 mn to almost 2.5 mn with a drop in employment in 1995 to 2 mn persons. The largest sector, manufacturing (C), accounts for 438 ths persons employed, followed by wholesale and retail trade (G) with 320 ths. Average hours worked per employed person declined over time from about 1900 to about 1750 hours. The numbers are still higher in agriculture (A) with about 2400 hours and construction (F) with more than 200 hours. The hours worked are somewhat lower in manufacturing (C) with 1550 hours and financial and insurance activities (K) with slightly above 1500 hours.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	348	577	215	313	159	67	50	79	2323
1985	282	549	183	316	175	70	63	120	2438
1995	161	414	118	245	158	60	48	153	2053
2007	122	438	184	320	175	79	40	285	2493

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated workers at the total economy level is at about 45% and was decreasing since 1997 from above 50%. The shares are similar to that in the sectors under consideration but somewhat higher for accommodation and food service activities with 62% and much lower in financial and insurance activities (K) with about 25%. In the latter sector the shares dropped due to the large increase in the share of high educated from 20% to more than 65%. Generally, the shares increased from slightly above 20% to 35% at the total economy level with all sectors – with the exception of construction (F) where the share stayed roughly constant at 15% - indicating an increase in the share of high educated persons. The share of ICT was increasing in all sectors and is particularly high in financial and insurance activities (K) reaching 90%. For the other sectors the range is from less than 10% to about 50%.

Figure 8: Medium educated, share in total employed, 1997, 2007, in %

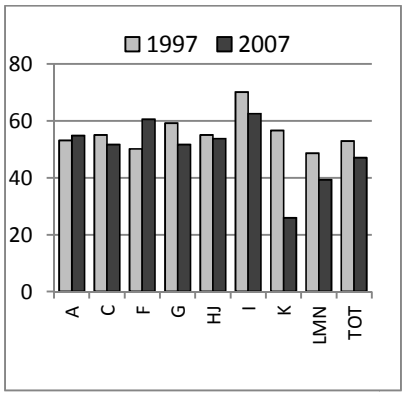


Figure 9: High educated, share in total employed, 1997, 2007, in %

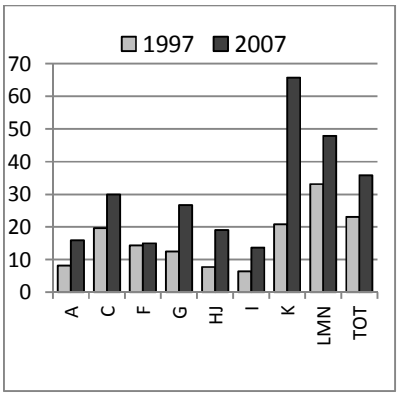
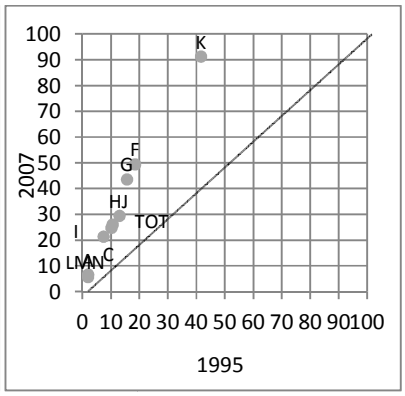
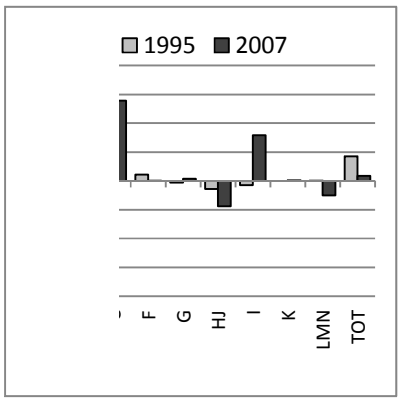


Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector



Finland shows a large trade surplus in manufacturing (C) with a ratio of about 14% to gross output in 1995 which is only slightly lower compared to 1995. The deficit in terms of gross output is large in agriculture with almost -15% and deteriorating since 1995. Transportation, storage and communication shows a slight trade deficit (-5%) whereas accommodation and food service activities is in surplsu with +8%. In total, the economy runs a small surplus of about 1% which declined from about 5% in 1995.

Country Fiche

France (FR)

Value Added

The share of value added in total value added improved in real estate and business activities (LMN) (from 18% in 1975 to 28% in 2007) and in accommodation and food service activities (I) (from 2% in 1975 to 3% in 2007) only. All other sectors either maintained their shares or lost in shares: value added shares dropped the most in manufacturing (C) from 23% in 1975 to 12% in 2007 and in agriculture (A) from 6% in 1975 to only 2% in 2007. Relative to the country average, real annual value added growth rates were above average in transportation and storage (HJ), real estate and business activities (LMN) and wholesale and retail trade (G) only.

Figure 1: Share in Total Value Added

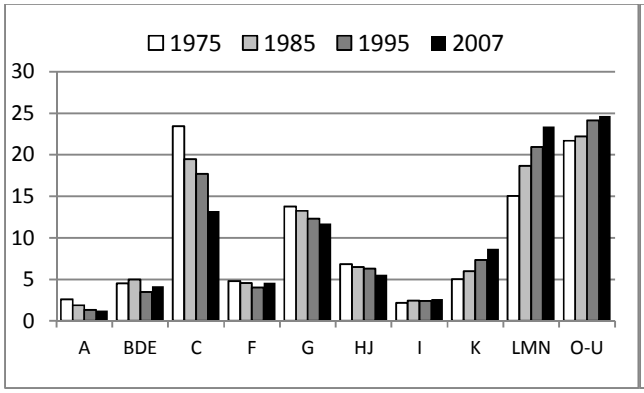
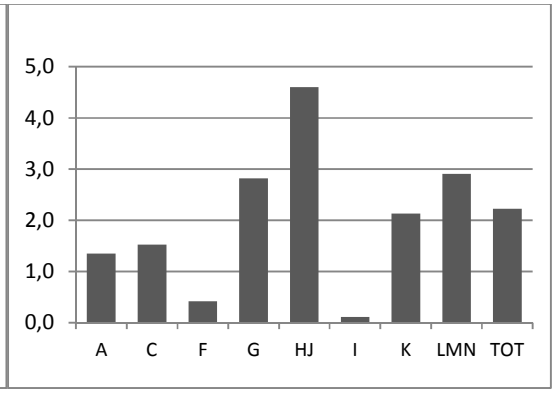


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

At the level of the total economy, the productivity level of France remained consistently above the EU15 level and, between 1975 and 2007, even forged ahead of the EU15 level. In 2007, all sectors had above EU15 productivity levels, with construction (F) and transportation and storage (HJ) displaying the strongest catching up processes. However, some sectors lost relative to EU15 productivity levels but still managed to stay above the EU15 level: accommodation and food service activities (I) and financial and insurance activities (K).

Figure 3: Productivity (VA per hour worked), levels, EU15=100

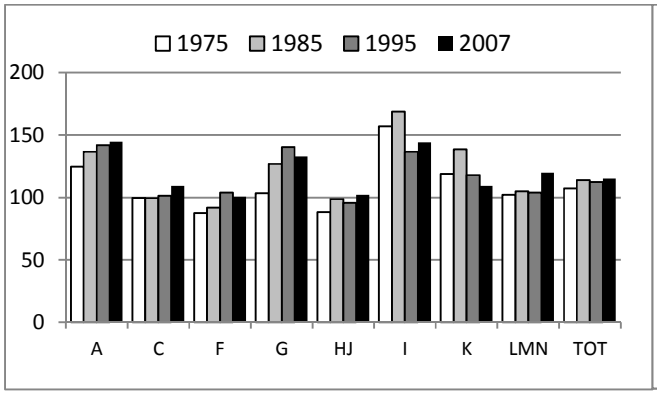
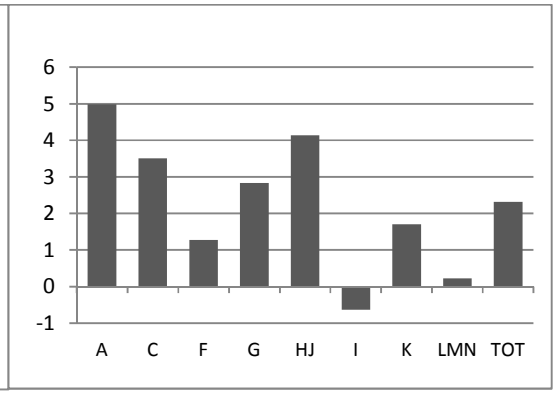


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

The share in total employment fell the most in agriculture (A) – it more than halved from around 11% in 1995 to only 3% in 2007 and in manufacturing (C) - it halved from 25% in 1995 to around 12% in 2007. Shares in total employment improved in real estate and business activities (LMN) and in accommodation and food service activities (I) but remained stable in all other sectors. This is also reflected in annual employment growth rates which decreased significantly in agriculture (A), manufacturing (C) and construction (C) but remained above average in all other sectors considered.

Figure 5: Share in Total Employment

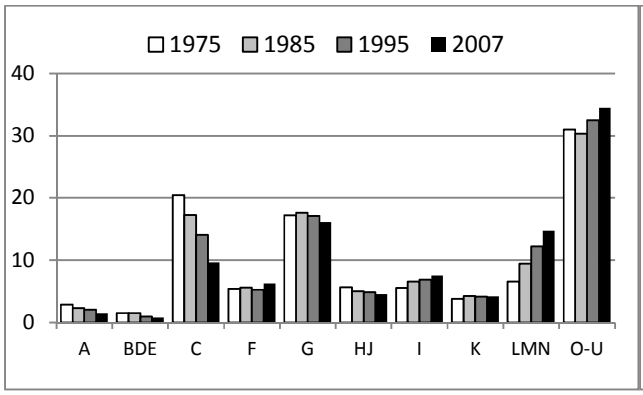
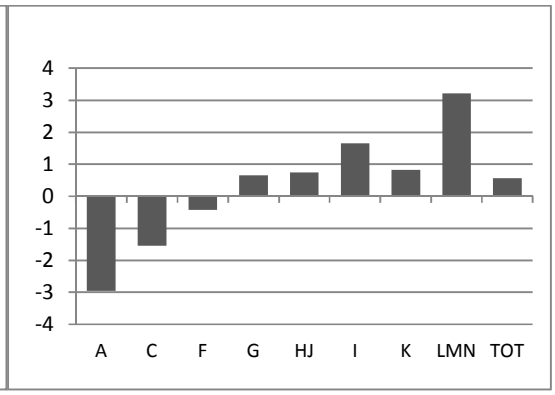


Figure 6: Employment, growth rates, annual average, 1975-2007



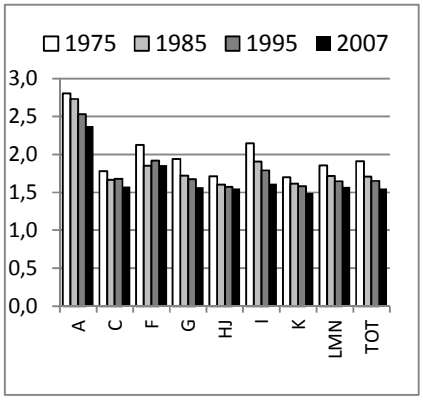
In absolute terms, employment decreased in agriculture (A) (from 2.2 mn persons in 1975 to 0.9 mn persons in 2007) and in manufacturing (C) (from 5.3 mn persons in 1975 to 3.3 mn persons in 2007). It increased the most in real estate and business activities (LMN) (from 1.45 mn persons in 1975 to 3.9 mn persons in 2007). In 2007, real estate and business activities (LMN) was the major employer among all sectors considered.

Between 1975 and 2007, hours worked per employee consistently fell throughout all sectors considered. Moreover, hours worked per employee fell the most in accommodation and food service activities (I) and in agriculture (A) and the least in manufacturing (C) and transportation and storage (HJ).

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	2227	5364	2026	2779	1229	581	608	1434	21468
1985	1586	4446	1633	2928	1346	648	731	1873	21857
1995	1051	3713	1467	2973	1386	781	735	2703	22694
2007	852	3255	1766	3422	1559	982	792	3942	25688

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated workers in total employed increased in agriculture (A) and construction (F) only. All other sectors either maintained or lost medium educated worker shares. The most significant losses were in financial and insurance activities (K). In 2007, all sectors except for financial and insurance activities (K) and real estate and business activities (LMN) had below average medium educated worker shares. In contrast, all sectors increased their shares of high educated workers in total employed. The strongest increases occurred in financial and insurance activities (K) (from 31% in 1995 to 51% in 2007).

All sectors experienced improvements in the shares of their ICT capital stock in total capital stock. Minor improvements were accomplished in agriculture (A) while, between 1995 and 2007, transportation and storage (HJ) doubled its share and financial and insurance activities (K) almost doubled its share.

Figure 8: Medium educated, share in total employed, 1995, 2007, in %

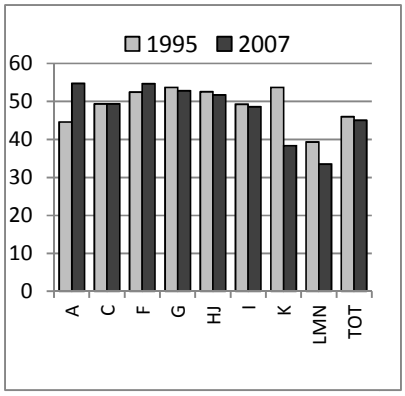


Figure 9: High educated, share in total employed, 1995, 2007, in %

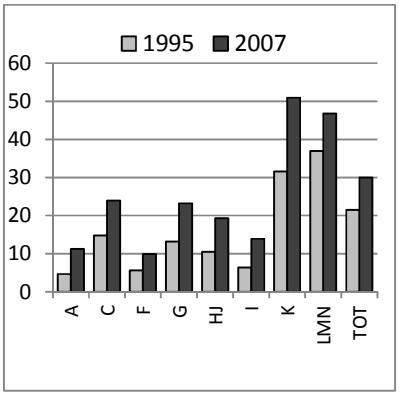
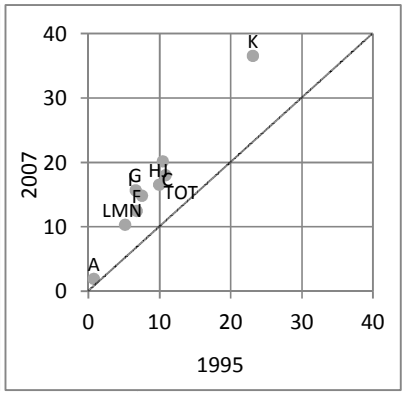


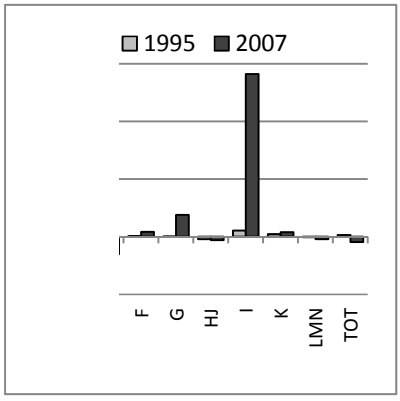
Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector

Between 1995 and 2007, France moved from a trade surplus to a trade deficit. At the sectoral level, wholesale and retail trade (G) moved from being a net importer to being a net exporter while both accommodation and food service activities (I) and agriculture (A) strengthened their positions as net exporters. In contrast, manufacturing (C) was still a net exporter in 1975 but already was a net importer in 2007.



Country Fiche

Hungary (HU)

Value Added

The value added shares in Hungary (Figure 1) are rather stagnant with larger changes only taking place in agriculture (A) with a decline from 8% to 4% over the period 1992-2007 and an increase in real estate and business activities (LMN) with an increase from 12.5% to 18%. Value added shares in manufacturing even slightly increased from 21% to 23% with an even higher value of 24% in 2000. Value added shares in construction (F) and accommodation and food service activities (I) declined from 5.5 to 4.5 and 2.5 to 1.5% respectively. Total value added growth has been positive in this period (1992-2007) with 3.2% and larger growth rates observed in manufacturing (C) and financial and insurance activities (K) with almost 6%. Growth rates have been significantly lower in agriculture with less than 1% and accommodation and food service activities which was slightly negative. Construction (F) shows a growth rate of 2.5%.

Figure 1: Share in total value added

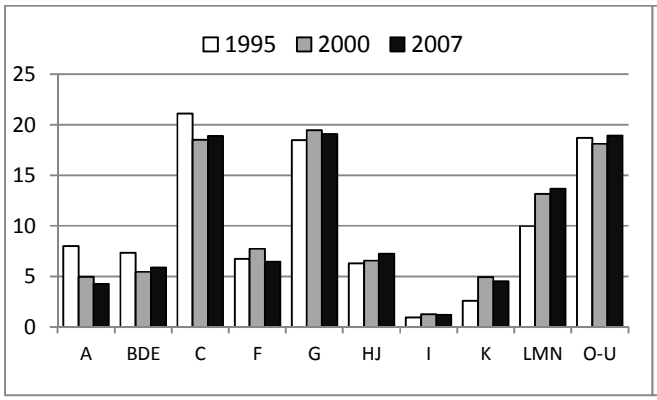
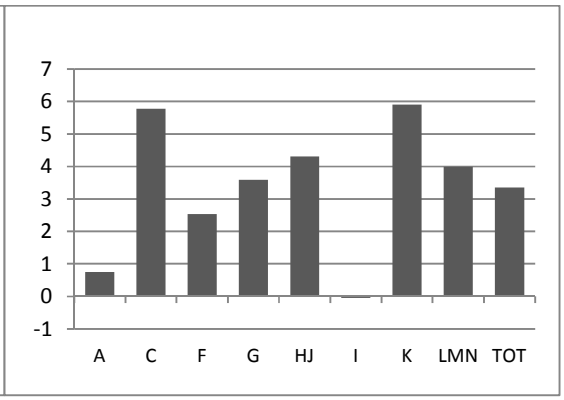


Figure 2: Value added, real growth rates, annual average 1992-2007



Productivity

Productivity level at the total economy level reached about 50% of EU15 in 2007 starting from a level of about 40% in 1992. Particularly strong increase can be observed in agriculture where Hungary shows above EU15 levels in 2007. Stronger deviations from the total can be seen for wholesale and retail trade (G) with 65% and with 75%. A stronger catching-up process also took place in manufacturing (C) from 30% to 50%. Productivity growth rates have been at about 4% for total with stronger growth rates observed in agriculture (A) and manufacturing (C) and some sectors showing even negative rates.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

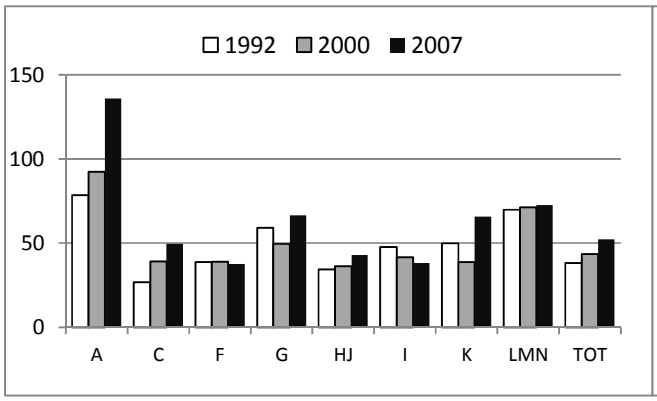
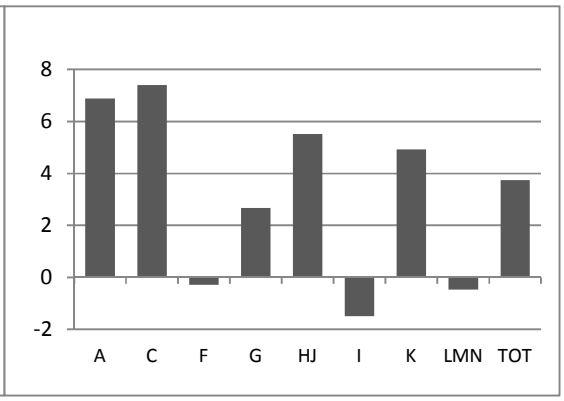


Figure 4: Productivity (VA per hour worked, growth, annual average 1992-2007



Employment

Employment shares are dominated by manufacturing with a share of 23% in 2007 coming down from 26% in 1992. A strong decline also occurred in agriculture from 12% to less than 5% in the same period and transportation, storage and communication (HJ) from 8.5 to 7%. Significant increases occurred in construction (F) from 5% to 8%, wholesale and retail trade (G) from 12% to 15%, and real estate and business activities (LMN) from 4% to 7%. Increases in accommodation and food services activities (I) and financial and insurance activities (K) which account for 4% and 2.5% in 2007 have been modest. Hungary faced a period of jobless growth and strong negative growth rates of employment in agriculture (A) with -6%, manufacturing (C) with -1.5%, and transportation, storage and communication (HJ) with -1%. Strong positive growth rates of employment occurred in real estate and business activities (LMN) with almost 5%, construction (F) with 3% and accommodation and food service activities with 2%.

Figure 5: Share in Total Employment

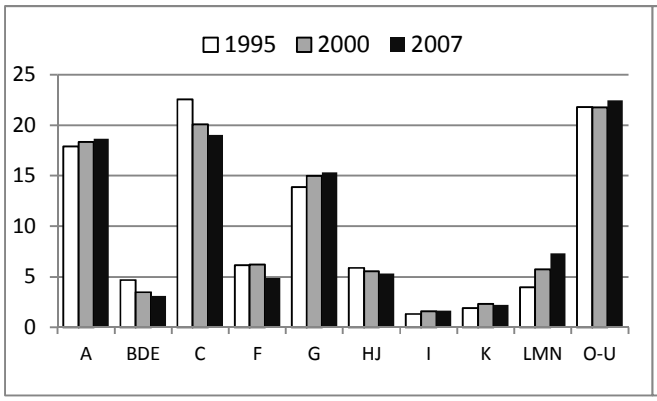
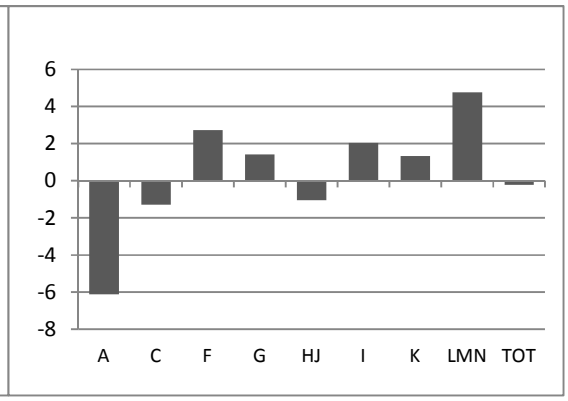


Figure 6: Employment, growth rates, annual average, 1992-2007

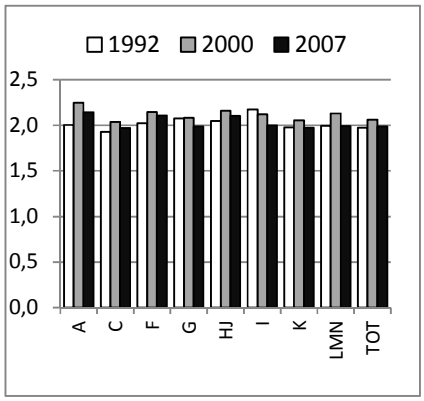


In absolute terms employment therefore declined from about 4 mn to 3.9 mn. Manufacturing accounts for 869 ths workers, followed by wholesale and retail trade with than 296 ths. The other sectors are relatively smaller with financial and insurance activities (K) accounting for only 84 ths employed persons. Average hours worked of persons employed are relatively high with 2000 hours and are rather homogenously allocated across sectors considered. After a peak in 2000 these have declined until 2007.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1992	460	1055	217	482	347	116	69	142	4022
2000	245	936	267	553	310	140	84	206	3844
2007	178	869	325	595	296	157	84	285	3900

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated workers in total employment was at 65% and slightly increased since 1997. These shares are significantly higher in construction (F), wholesale and retail trade (G), transportation, storage and communication (HJ) and accommodation and food service activities (I) with coming close to 80%. The shares in manufacturing (C) are at 70% and at 60% in agriculture (A). INall these sectors the shares increased over time, however declined in financial and insurance activities (K) and real estate and business activities (LMN) showing shares of 55 and 45%, respectively. These two latter industries on the other hand experienced a large increase in the share of high educated from 28 to 41 and 29 to 45%, respectively. These are also the two sectors with shares of high educated higher than that in total employment with 21%. Shares in the remaining sectors increased as well and reach from about 8% in manufacturing (C) and accommodation and food service activities (I) to 11% in wholesale and retail trade. The share of ICT increased in all sectors in a relative homogenous way. For total economy the share increased from 15 to 35%. There is however a wide range of these shares from 10% in agriculture (A) to 80% in financial and insurance activities.

Figure 8: Medium educated, share in total employed, 1997, 2007, in %

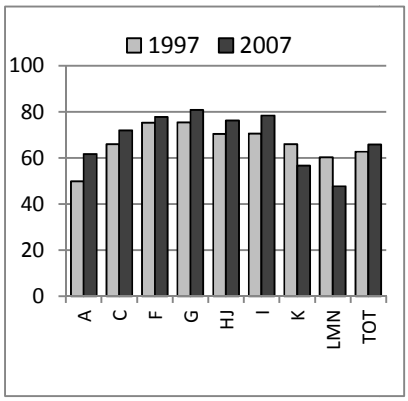


Figure 9: High educated, share in total employed, 1997, 2007, in %

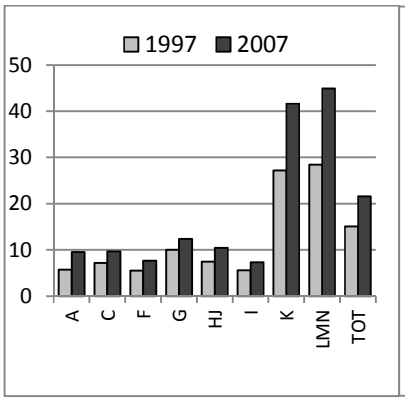
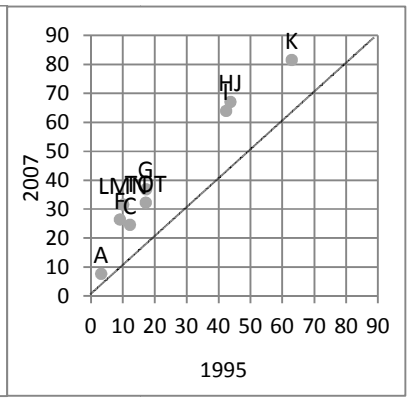


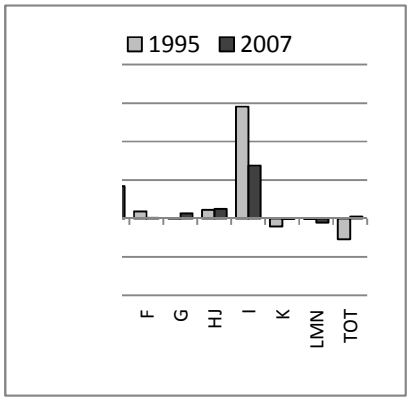
Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector

Hungary managed to turn the trade balance since 1995 around. Net trade in percent of gross output increased from -3% to 0.5% which is mostly driven by a surplus in manufacturing (C) with 4% (from -6% in 1995), agriculture with almost 15% ratio and accommodation and food service activities with 7(coming down from 15%). Ratios in the other sectors are close to zero though slightly positive construction (F), wholesale and retail trade (G) and transportation, storage and communication (HJ) and slightly negative in financial and insurance activities (K) and real estate and business activities (LMN).



Country Fiche

Iceland (IS)

Value Added

In Iceland the shares of industries in total value added remained relatively unchanged until 1995, but changed substantially thereafter. The share of manufacturing (C) dropped from 23% in 1980 to 11% in 2007 and of agriculture (A) from 12% to 6%. The share of wholesale and retail trade (G) remained with about 10% and the one of transportation, storage and communication (HJ) with 8% stable over the whole period 1980 to 2007. After having fallen up to 1995 the share of construction (F) rose substantially to 12%. While the share of accommodation and food service activities (I) rose slightly to about 2%, the share of financial and insurance activities (K) more than doubled from below 4% in 1995 to 8.5% in 2007. Also real estate and business activities (LMN) jumped from 11% in 1995 to 18% in 2007. Overall value added growth was very high with 3.8% and in all service sectors above average. In financial and insurance activities (K) with more than 7%, but also in transportation, storage and communication (HJ), accommodation and food service activities (I) and real estate and business activities (LMN) with about 5%. Also in wholesale and retail trade (G) with 4% and construction (F) with 3% growth of value added was still quite high. Only in agriculture (A) and manufacturing (C) growth was with slightly above 1% somewhat sluggish.

Figure 1: Share in Total Value Added

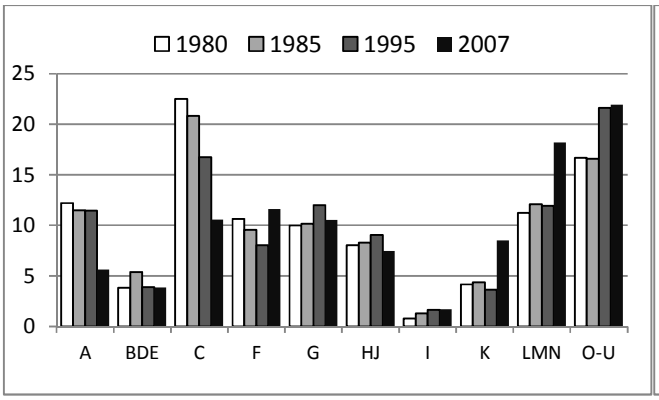
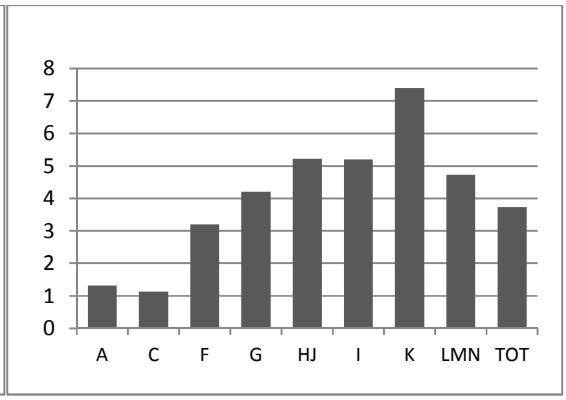


Figure 2: Value Added, real growth rates, annual average 1991-2007

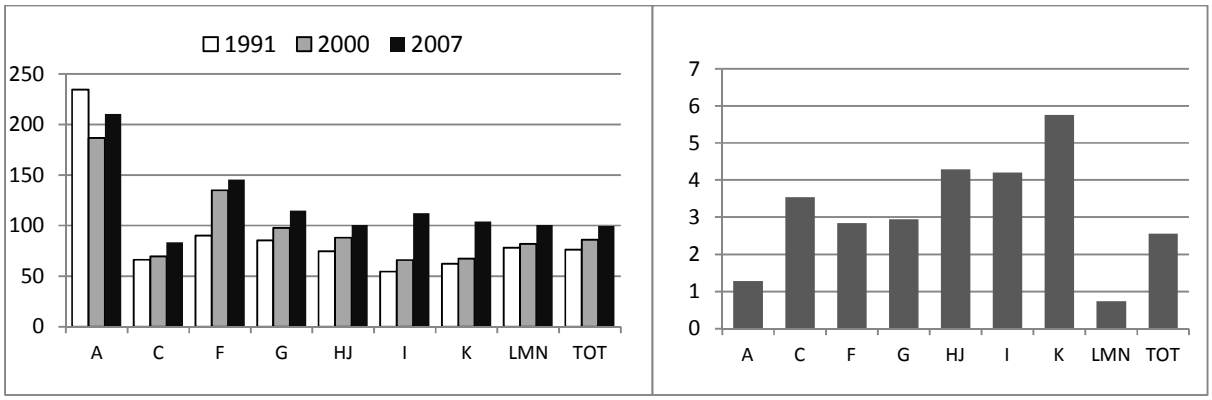


Productivity

Productivity levels in comparison to EU-15 increased from slightly above 75% in 1991 to 100% in 2007. Apart from agriculture (A) where the relative level fell from 235% to 210% catching up took place in all sectors especially in services. In manufacturing (C) the level rose from 66% to 83%, in construction (F) from 90% to 145%, in wholesale and retail trade (G) from 85% to 115% and in accommodation and transport equipment (I) from 55% to more than 110%. In all other sectors productivity levels also rose substantially and account for about 100% in comparison to EU-15 in 2007.

Figure 3: Productivity (VA per employed), levels, EU15=100

Figure 4: Productivity (VA per employed, growth, annual average 1991-2007

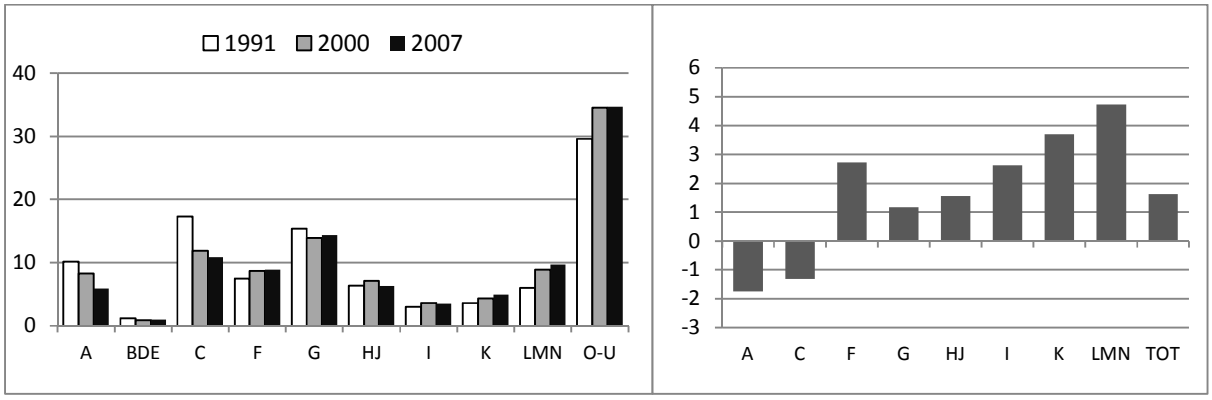


Employment

Changes in employment shares have been less dramatic in the period from 1991 to 2007 compared to the changes in value added. The strongest declines took place in agriculture (A) from 10% to 6% and manufacturing (C) from 17% to 11%. The share of wholesale and retail trade (G) slightly fell from 15% to 14%. The shares of all other sectors increased slightly, in construction (F) to 9% in 2007, in transportation, storage and communication (HJ) to 6.5%, in financial and insurance activities (K) to 5% and somewhat stronger in real estate and business activities (LMN) from 6% in 1991 to 10% in 2007. Overall employment growth was 1.6% p.a. in the period from 1991 to 2007. Declines occurred in agriculture (A) with -1.8% and manufacturing (C) with -1.3%, whereas increases above average took place in real estate and business activities (LMN) with almost 5%, financial and insurance activities (K) with 3.7%, construction (F) with 2.7% and accommodation and food service activities (I) with 2.6%. Employment also grew, but somewhat slower in wholesale and retail trade (G) with about 1% p.a. and transportation, storage and communication (HJ) with 1.6%.

Figure 5: Share in Total Employment

Figure 6: Employment, growth rates, annual average, 1991-2007



In absolute terms this means that the number of employed persons increased from 136.9 ths in 1991 to 177.3 ths in 2007. In wholesale and retail trade (G) 25.4 ths persons are employed followed by 19.2 ths in manufacturing (C) and real estate and business activities (LMN) with 17.2 ths. The smallest sector in terms of employment is accommodation and food service activities (I) accounting for 6.2 ths persons employed.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT

1995	13.9	23.7	10.2	21.1	8.7	4.1	4.9	8.2	136.9
2000	13.0	24.2	10.5	21.9	10.6	6.4	6.6	13.0	156.4
2007	10.5	19.2	15.7	25.4	11.2	6.2	8.7	17.2	177.3

Skill formation

The share of medium educated in total employed is at a level of 33% and constant since 1999. A significantly higher share is seen in construction (F) and somewhat higher in wholesale and retail trade (G), transportation, storage and communication (HJ) and manufacturing (C). The shares in financial and insurance activities (K) and real estate and business activities (LMN) are somewhat lower. In agriculture the share is with about 20% significantly lower. The shares of medium educated only changed substantially in construction, where it fell and in accommodation and food service activities (I), where it rose strongly. The share of high educated employed persons increased from slightly below 20% to about 27% with increases to be observed in all sectors. Shares are particularly high in financial and insurance activities (I) and real estate and business activities (LMN) with 45% (27% in 1999) and 51% (49% in 1999). The corresponding shares in manufacturing (C), wholesale and retail trade (G) and transportation, storage and communication (HJ) are between 11% and 15% and in agriculture (A), construction (F) and accommodation and food service activities (I) at about 5%.

Figure 7: Medium educated, share in total employed, 1999, 2007, in %

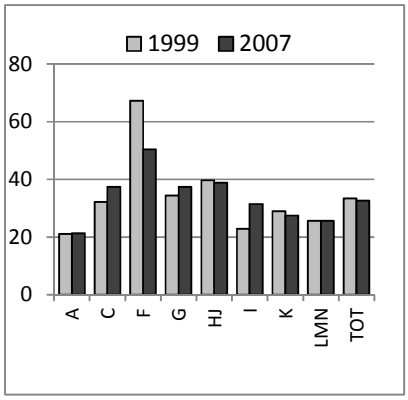
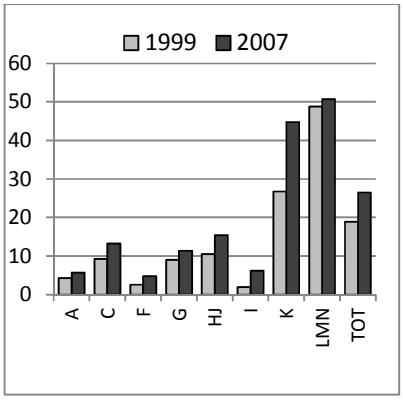


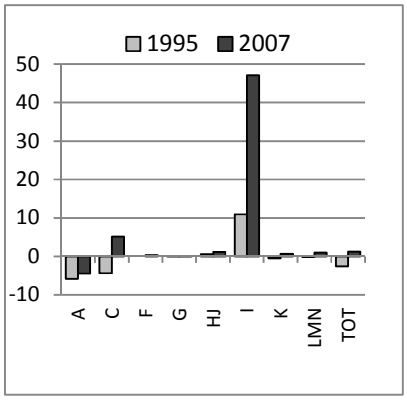
Figure 8: High educated, share in total employed, 1999, 2007, in %



Trade

Figure 9: Net trade, in % of gross output in sector

Overall net trade was slighty negative in 1995 (with -3% in terms of gross output) but became positive in 2007 (+1%). Partiularly net trade in the manufacturing sector became positive (+5%) from a negative of -4% in 1995. Most of the other sectors show slightly postive rates which are particularly high in accommodation and food service activities.



Country Fiche

Italy (IT)

Value Added

The share of value added in total value added improved in transportation and storage (HJ), accommodation and food service activities (I) and real estate and business activities ((LMN) only, most significantly in real estate and business activities (LMN), from around 11% in 1975 to 22% in 2007 (Figure 1). All other sectors lost in terms of value added shares: agriculture (A) (from 7% in 1975 to 2% in 2007) and manufacturing (C) (from 27% in 1975 to 19% in 2007) lost the most. Real value added growth rates were positive in all sectors considered and above country average in transportation and storage (HJ), real estate and business activities (LMN) and manufacturing (C) only.

Figure 1: Share in Total Value Added

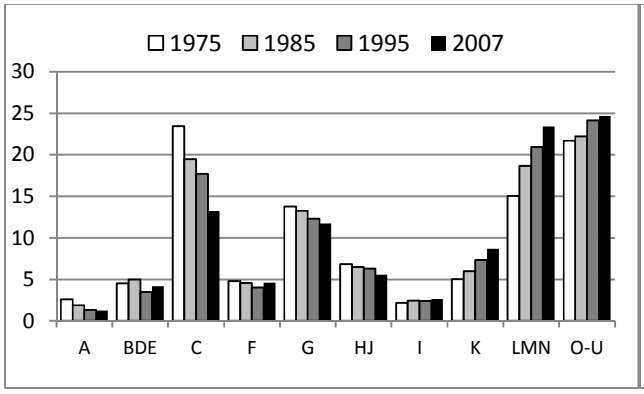
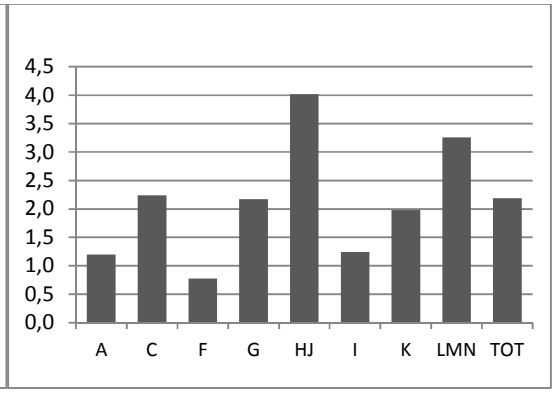


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

Between 1975 and 2007, the overall productivity level of Italy dropped slowly below the EU15 level. None of the sectors experienced any improvements in productivity (relative to the EU15 level). In contrast, real estate and business activities (LMN), transportation and storage (HJ) and construction (F) significantly lost ground and even fell behind the EU15 productivity level.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

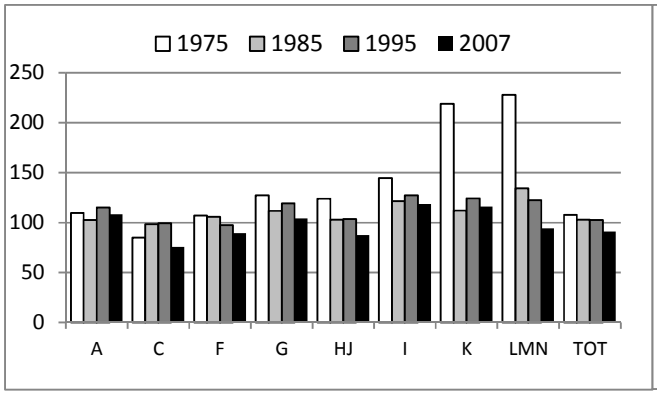
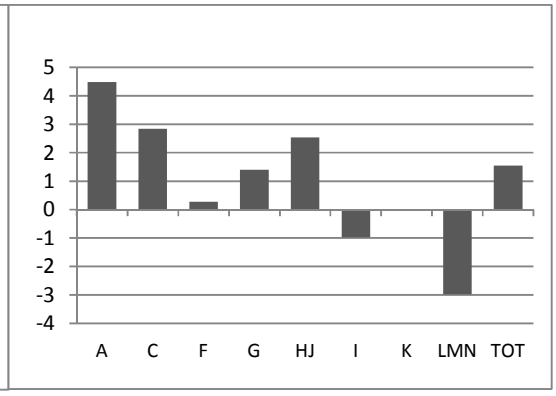


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

The share in total employment dropped in agriculture (A), from around 16% in 1975 to only 4% in 2007 and in manufacturing (C), from around 29% in 1975 to 20% in 2007. In contrast, the share in total employment increased in real estate and business activities (LMN), from 2% in 1975 to 12% in 2007, in accommodation and food service activities (I) and in financial and insurance activities (K) but remained unchanged in transportation and storage (HJ) and in construction (F). This is also reflected in annual employment growth rates which were negative for agriculture (A) and manufacturing (C) and above country average for all remaining sectors, except for construction (F) and transportation and storage (HJ).

Figure 5: Share in Total Employment

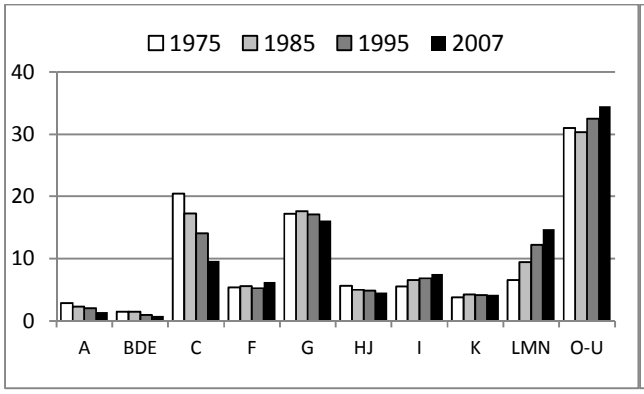
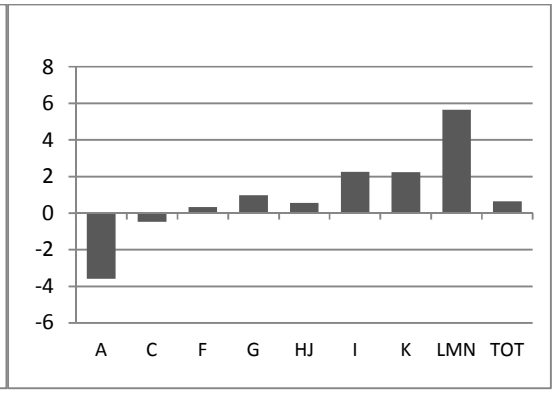


Figure 6: Employment, growth rates, annual average, 1975-2007



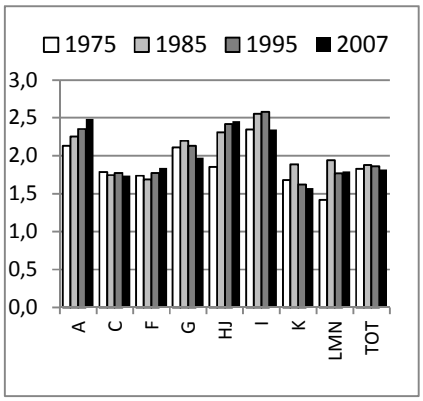
In absolute terms, employment decreased in agriculture (A) only (from 3.3 mn persons in 1975 to 1 mn persons in 2007). In contrast, employment increased the most in real estate and business activities (LMN) (from 0.5 mn persons in 1975 to 3.1 mn persons in 2007) and accommodation and food service activities (I) (from 0.6 mn persons in 1975 to 1.2 mn persons in 2007).

Between 1975 and 2007, hours worked per employee fell in manufacturing (C), wholesale and retail trade (G) and financial and insurance activities (K) only – most significantly in wholesale and retail trade (G) and in financial and insurance activities (K). In contrast, hours worked per employee increased in agriculture (A), transportation and storage (HJ), real estate and business activities (LMN).

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	3276	5926	1763	2699	1044	609	315	527	20496
1985	2169	5487	1583	3500	1133	733	561	1020	21670
1995	1316	5065	1481	3345	1080	876	605	1667	21841
2007	1014	5069	1953	3672	1246	1239	638	3061	25184

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated workers in total employed increased in all sectors except for financial and insurance activities (K) and real estate and business activities (LMN). The starkest increases occurred in accommodation and food service activities (I) and in wholesale and retail trade (G). Moreover, in 2007, only construction (F) and agriculture (A) had below average medium educated worker shares. In contrast, except for construction (F), the share of high educated workers in total employed improved in all sectors, most significantly in financial and insurance activities (K), from 16% in 1995 to 27% in 2007. In 2007, only financial and insurance activities (K) and real estate and business activities (LMN) had above average high educated worker shares.

Except for transportation and storage (HJ), all sectors experienced improvements in the shares of their ICT capital stock in total capital stock. Most significantly, the share of ICT capital stock in total increased the most in financial and insurance activities (K) which more than doubled between 1995 and 2007.

Figure 8: Medium educated, share in total employed, 1995, 2007, in %

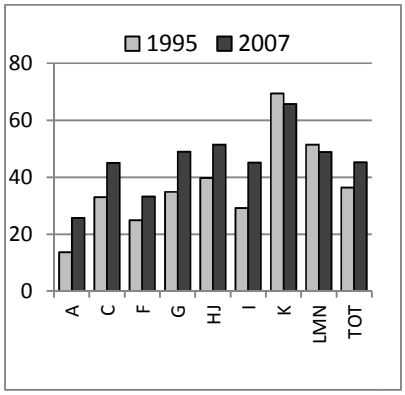


Figure 9: High educated, share in total employed, 1995, 2007, in %

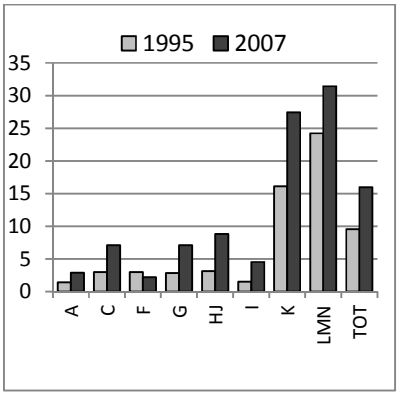
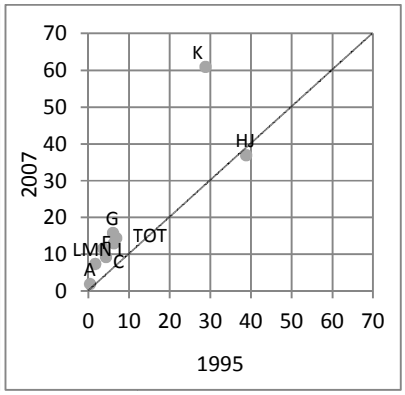


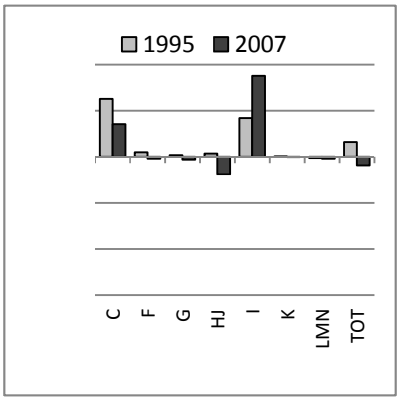
Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector

In 1995, Italy still ran a trade surplus while in 2007 it already ran a trade deficit. At the sectoral level, this development was matched by construction (F), wholesale and retail trade (G), transportation and storage (HJ) and real estate and business activities (LMN) which all moved from being net exporters in 1995 to being net importers in 2007. In contrast, among all sectors considered, agriculture (A) remained the main net importer while both manufacturing (C) and accommodation and food service activities (I) remained net exporters. Moreover, accommodation and food service activities (I) strengthened its dominant position as net exporter even further between 1995 and 2007.



Country Fiche

Japan (JP)

Value Added

The share of value added in total value added increased most significantly in real estate and business activities (LMN) (from 9% in 1975 to 19% in 2007) but also in financial and insurance activities (K) (from 5% in 1975 to 6% in 2007). In contrast, it decreased in accommodation and food service activities (I), construction (F) and agriculture (A) but most drastically in manufacturing (C), from 27% in 1975 to 21% in 2007. Real value added growth rates were negative in agriculture (A) only and below country average in construction (F), transportation and storage (HJ) and accommodation and food service activities (I).

Figure 1: Share in Total Value Added

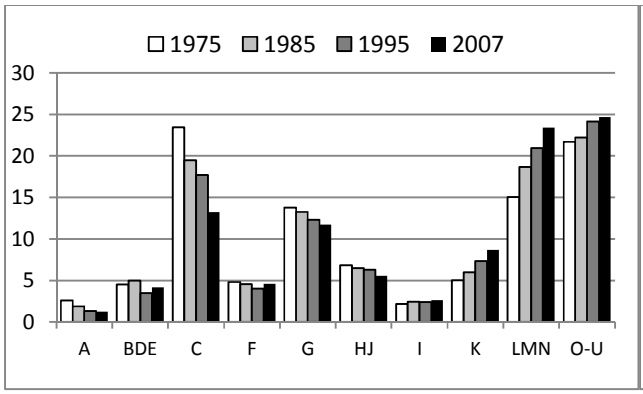
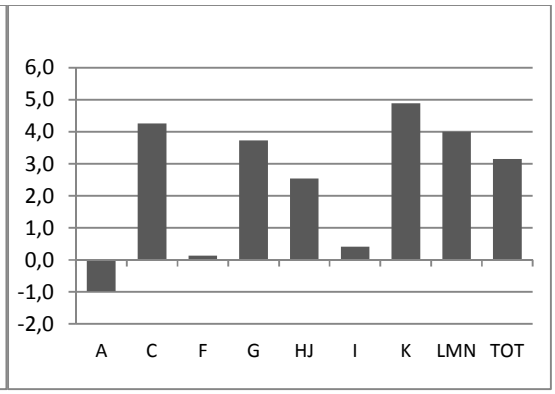


Figure 2: Value Added, real growth rates, annual average 1975-2006



Productivity

Between 1977 and 2006, the overall productivity level of the Japanese economy stayed consistently below the EU15 level, some catching up took place, though. At the sectoral level, only wholesale and retail trade (G) and financial and insurance activities (K) were able to catch up with and even leap ahead of the EU15 productivity level. In contrast, agriculture (A) and transportation and storage (HJ) both lost and even fell behind the EU15 productivity level after 1985 and 2006, respectively. Some catching up also took place in manufacturing (C), which slowly reduced the prevailing productivity gap.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

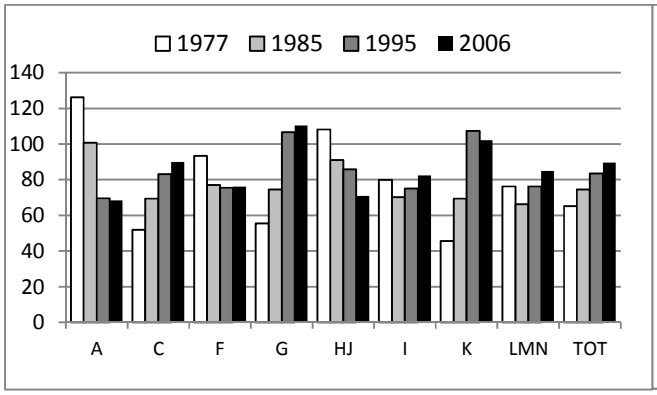
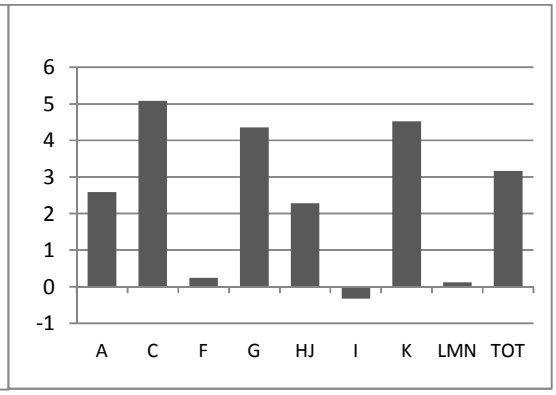


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2006



Employment

The share in total employment dropped in manufacturing (C), from 25% in 1975 to 15% in 2006 and in agriculture (A), from 15% in 1975 to 5% in 2006 only. It increased in accommodation and food service activities (I) but most significantly in real estate and business activities (LMN), from 4% in 1975 to 12% in 2006. It remained fairly stable in all other sectors. With respect to annual employment growth rates, employment growth was negative in agriculture (A) and manufacturing (C) only but above country average in real estate and business activities (LMN), accommodation and food service activities (I) and financial and insurance activities (K).

Figure 5: Share in Total Employment

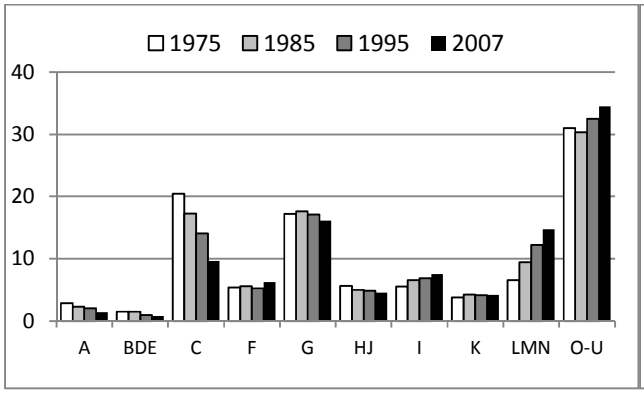
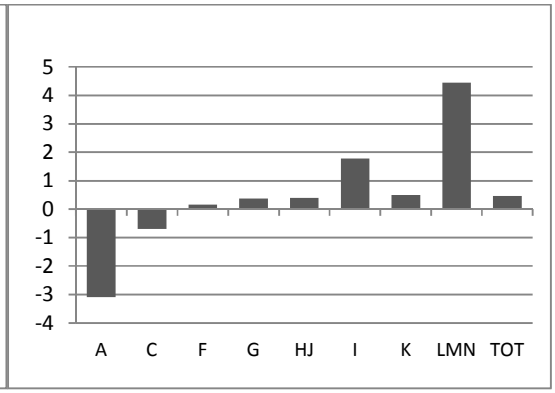


Figure 6: Employment, growth rates, annual average, 1975-2006



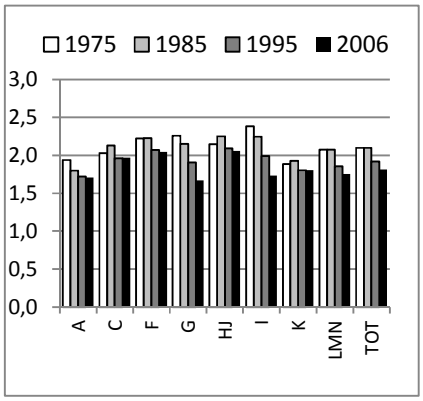
In absolute terms, employment decreased in agriculture (A) (from 8.6 mn persons in 1975 to 3.2 mn persons in 2006) and manufacturing (C) only (from 13.8 mn persons in 1975 to 11.1 mn persons in 2006). Employment increased in all other sectors but most significantly in real estate and business activities (LMN) (from 2.1 mn persons in 1975 to 7.9 mn persons in 2006) and accommodation and food service activities (I) (from 2.7 mn persons in 1975 to 4.7 mn persons in 2006).

Between 1975 and 2006, hours worked decreased in all sectors. It fell the most in wholesale and retail trade (G) and accommodation and food service activities (I). In 2006, only manufacturing (C), construction (F) and transportation and storage (HJ) had above average hours worked.

Table 1: Employment in sectors, in thousand

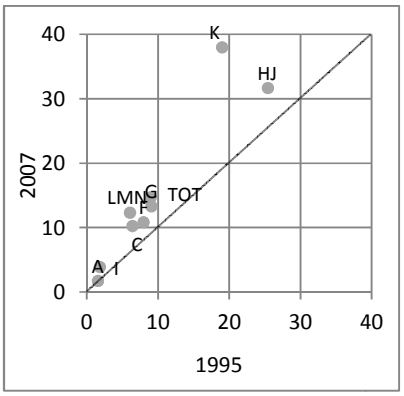
year	A	C	F	G	HJ	I	K	LMN	TOT
1975	8585	13807	5251	9850	3281	2693	1519	2063	55788
1985	6569	14390	5444	11141	3416	3633	1922	3735	60936
1995	4759	13830	6902	12038	3856	4499	2101	5701	66620
2006	3248	11151	5517	11056	3700	4664	1765	7946	64188

Figure 7: Annual hours worked per employed, in thousand



ICT capital

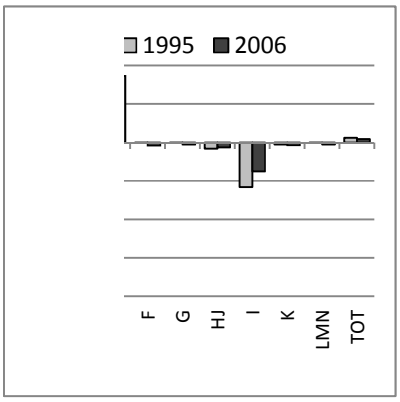
Figure 8: ICT capital stock, share in total capital stock in sector



Between 1995 and 2007, except for agriculture (A), all sectors increased their ICT capital stock in total capital stock (Figure 8). This increase was strongest in financial and insurance activities (K) whose ICT capital stock in total almost doubled. All other sectors experienced less significant increases.

Trade

Figure 9: Net trade, in % of gross output in sector



Between 1995 and 2006, Japan ran a trade surplus that slightly deteriorated in 2006. Except for manufacturing (C), all sectors were net importers. Manufacturing (C) improved its dominant position as net exporter even further between 1995 and 2006.

Country Fiche

Lithuania (LT)

Value Added

Between 1995 and 2007, the share of value added in total value added decreased most significantly in agriculture (A) (from around 12% in 1995 to 5% in 2007) but also slightly in manufacturing (C). It increased the most in construction (F) (from 7% in 1995 to around 10% in 2007) and in transportation and storage (HJ) (from around 8% in 1995 to 13% in 2007). In all other sectors, the share of value added in total remained fairly stable in all other sectors. Real value added growth rates were all positive but below the country average in agriculture (A), accommodation and food service activities (I) and financial and insurance activities (K) only.

Figure 1: Share in Total Value Added

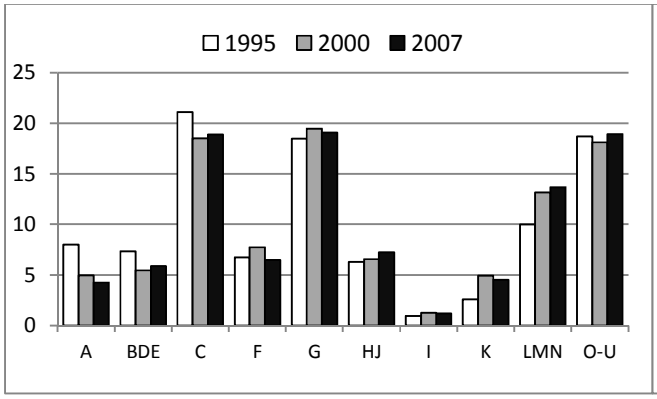
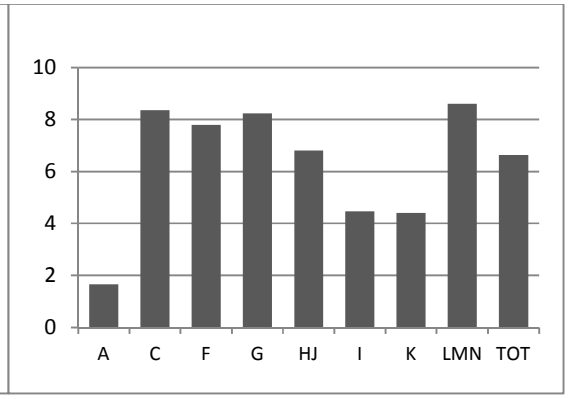


Figure 2: Value Added, real growth rates, annual average 1995-2007



Productivity

At the level of the total economy, the productivity level of Lithuania remained significantly below the EU15 productivity level between 1995 and 2007, some catching up took place, though. In 2007, the productivity level of Lithuania was still less than 50% of the EU15 level. At the sectoral level, none of the sectors managed to fully catch up with the EU15 productivity level. However, except for accommodation and food service activities (I) and financial and insurance activities (K), all sectors exhibited some catching up that was particularly strong after 2000.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

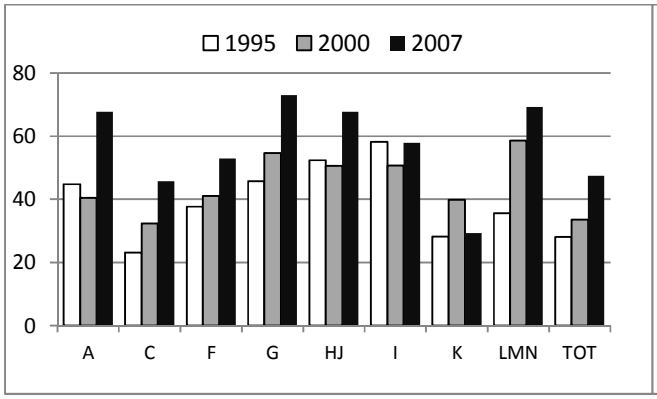
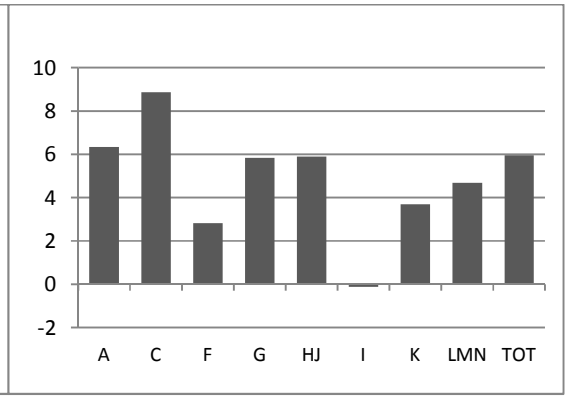


Figure 4: Productivity (VA per hour worked, growth, annual average 1995-2007



Employment

The share in total employment decreased strongest in agriculture (A) (from around 19% in 1995 to around 10% in 2007) but also slightly fell in manufacturing (C) and financial and insurance activities (K). In contrast, the share in total employment increased particularly in construction (F) (from around 6% in 1995 to around 11% in 2007) but also in wholesale and retail trade (G), transportation and storage (HJ), accommodation and food service activities (I) and real estate and business activities (LMN). These developments are also reflected in annual employment growth rates which were negative for agriculture (A), manufacturing (C) and financial and insurance activities (K) only and above the overall average in all other sectors.

Figure 5: Share in Total Employment

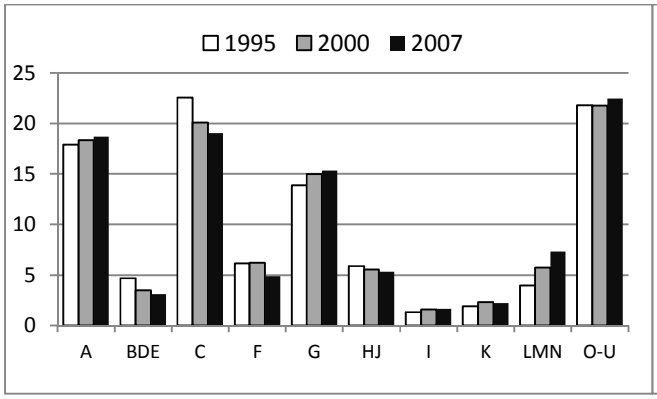
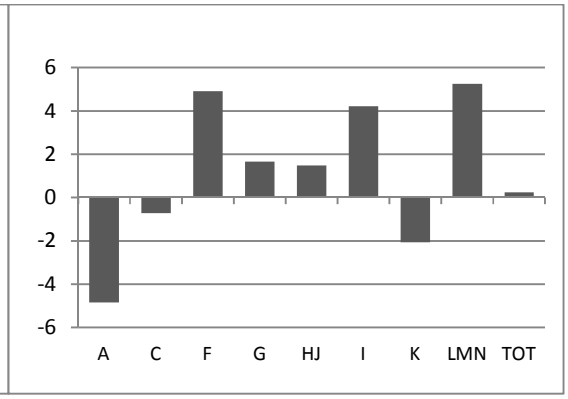


Figure 6: Employment, growth rates, annual average, 1995-2007



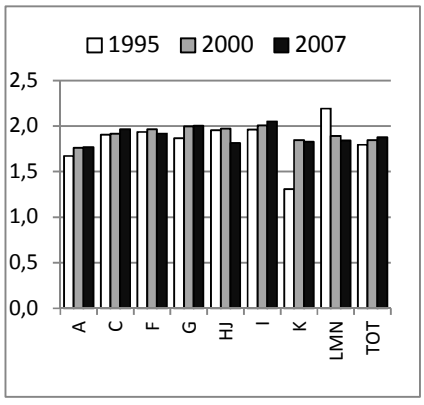
In absolute terms, employment almost halved in agriculture (A) (from 0.3 mn persons in 1995 to 0.16 mn persons in 2007) but also fell in manufacturing (C) (from 0.29 mn persons in 1995 to 0.26 mn persons in 2007) and in financial and insurance activities (K) (from 0.03 mn persons in 1995 to 0.023 mn persons in 2007). In contrast, employment almost doubled in construction (F), accommodation and food service activities (I) and real estate and business activities (LMN).

Between 1995 and 2007, hours worked per employee increased in agriculture (A), manufacturing (C), wholesale and retail trade (G), but most significantly in financial and insurance activities (K). Hours worked fell in all other sectors.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1995	286	287	95	212	95	19	29	41	1479
2000	261	248	83	200	90	26	15	43	1393
2007	158	263	169	258	113	31	23	76	1524

Figure 7: Annual hours worked per employed, in thousand



Skill formation

The share of medium educated workers in total employed increased in all sectors except for financial and insurance activities (K) where the share of medium educated in total dropped from around 30% in 1995 to around 20% in 2007. The starkest increases occurred in accommodation and food service activities (I), from around 46% in 1995 to close to 80% in 2007. In 2007, only financial and insurance activities (K) and real estate and business activities (LMN) had shares of medium educated in total employed that were below the overall country level of close to 60%. In contrast, the share of high educated workers in total employed dropped in all sectors except for financial and insurance activities (K) which increased to almost 80% in 2007. In 2007, only financial and insurance activities (K) and real estate and business activities (LMN) had shares of high educated that were above the overall country level of around 50%.

Figure 8: Medium educated, share in total employed, 1998, 2007, in %

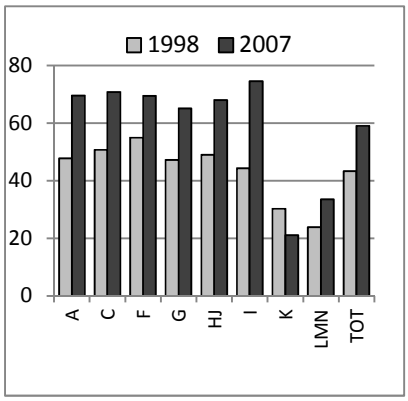
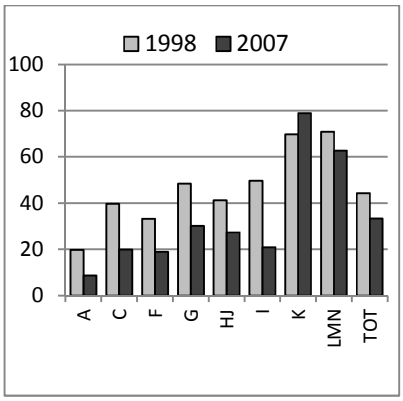
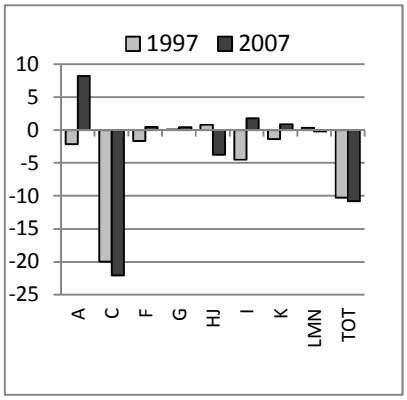


Figure 9: High educated, share in total employed, 1998, 2007, in %



Trade

Figure 10: Net trade, in % of gross output in sector



In both, 1997 and 2007, Lithuania ran a trade deficit. At the sectoral level, manufacturing (C) was the prime net importer among all sectors considered. In contrast, agriculture (A), construction (F), wholesale and retail trade (G), accommodation and food service activities ((I) and financial and insurance activities (K) all moved from being net importers in 1997 to begin net exporters in 2007. The opposite occurred in transportation and storage (HJ) and real estate and business activities (LMN) which all became net importers after 1997. In 2007, agriculture (A) was the prime net exporter among all sectors considered.

Country Fiche

Luxembourg (LU)

Value Added

The changes in Luxembourg's value added shares are dominated by a strong decline in the share of manufacturing from 25% to 8% and a corresponding strong increase in financial and insurance activities (K) from 14 to 27% as well as in real estate and business activities (LMN) from 8 to 20%. Agriculture plays a negligible role. The share of wholesale and retail trade (G) declined from 14% to 10%, the share of transportation, storage and communication (HJ) slightly increased from 6% to 9%, and the share of accommodation and food service activities (I) was constant at 2.5% as was construction (F) at about 5%. Overall value added growth was at 4.5% with even stronger increases in transportation, storage and communication (HJ) and financial and insurance activities (K) with around 8% and real estate and business activities (LMN) with 6%.

Figure 1: Share in Total Value Added

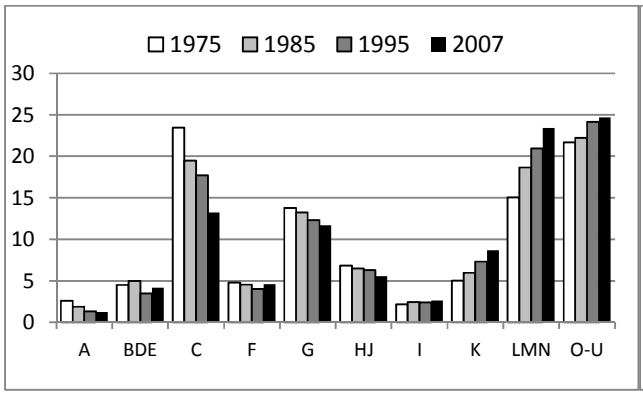
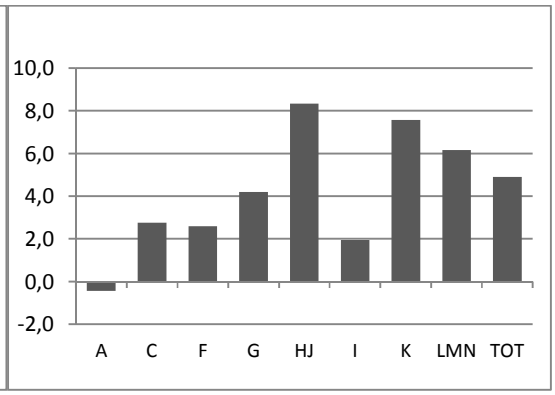


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

In overall terms productivity levels have been well above the EU-15 average, particularly so in the financial and real estate sectors though these productivity advantages have declined over time. In the other sectors productivity levels have been at about the EU-15 average or higher in wholesale and retail trade (G) and transportation, storage and communication (HJ).

Figure 3: Productivity (VA per hour worked), levels, EU15=100

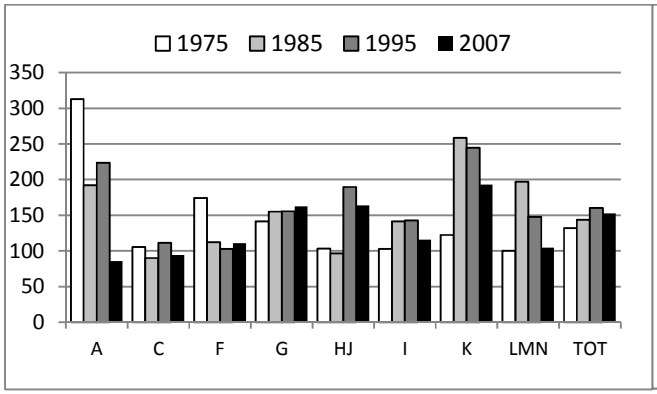
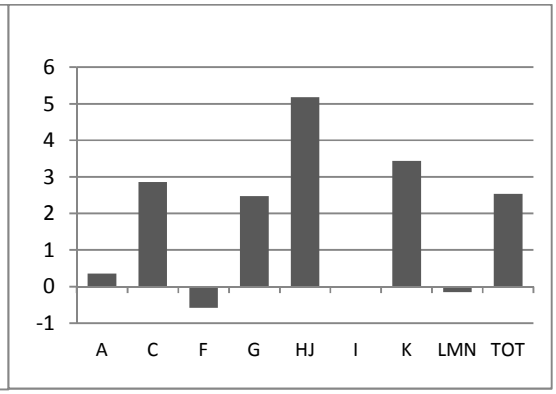


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

Employment shares are highest in real estate and business services (LMN) with 16% and wholesale and retail trade (G) with 13%, followed by financial and insurance activities (K) with 11% with construction (F) and manufacturing (C) holding a similar share. Particularly, the share of manufacturing declined from 30% in 1975 to only 11% in 2007. Accommodation and food service activities (I) account for 5% whereas agriculture was declining from 6% to 2% only. The overall employment growth rate was at 2% with higher growth rates achieved in transportation, storage and communication (HJ) with almost 4%, financial and insurance activities (K) with 4.5% and real estate and business services (LMN) with 6%.

Figure 5: Share in Total Employment

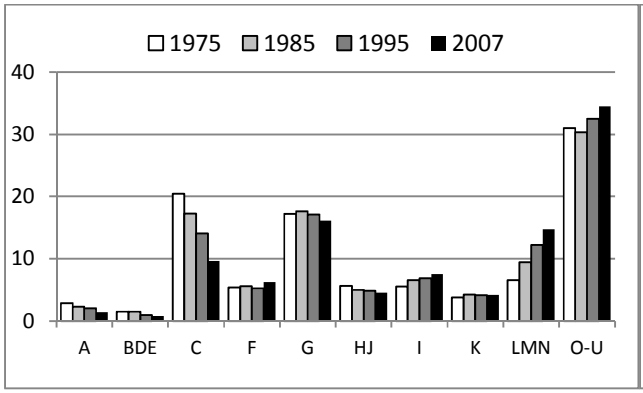
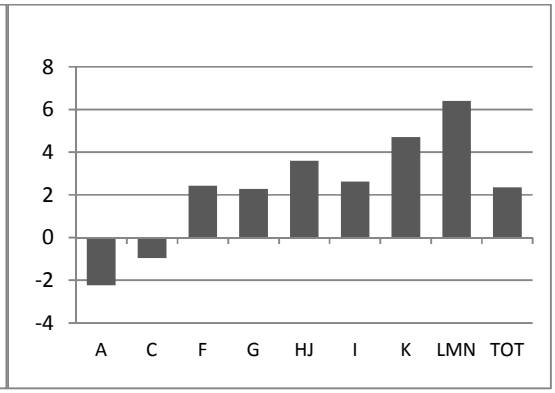


Figure 6: Employment, growth rates, annual average, 1975-2007

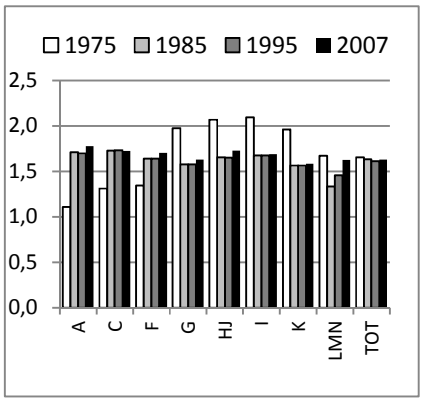


The number of persons employed was therefore increasing from 3.8 mn to 4.4 mn over the whole period 1975-2007. Of these, 728 ths are employed in real estate and business services (LMN) and 614 ths in wholesale and retail trade (G), followed by manufacturing (C) with 590 ths. Average hours worked per person employed is at a level of about 1600 hours. These are more or less at the same level in the individual sectors since 1985 with an increasing trend in real estate and business services (LMN). Average hours worked tends to be slightly higher in agriculture (A), manufacturing (C), transportation, storage and communication (HJ) and accommodation and food service industries (I).

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	156	1086	297	573	286	99	126	178	3784
1985	126	797	202	546	283	116	145	245	3639
1995	109	678	236	568	274	142	147	440	3868
2007	83	590	258	614	296	149	139	728	4365

Figure 7: Annual hours worked per employed, in thousand



Skill formation

The share of medium educated workers reached 40% in 2007 (from 30% in 1995) with strong increases observed in all sectors except real estate and business services (LMN). The share of medium educated is only lower in construction (F) with 30% and real estate and business services (LMN) with 28%. Also the share of high educated increased in general from 20% to 30% and in most sectors though in some only slightly. These shares are highest in real estate and business services (LMN) with 50% and financial and insurance activities (K) with 45%. In all remaining sectors the shares are less than 10% with the exception of manufacturing (C) where this group accounts for 19% and wholesale and retail trade (G) with a share of 15%.

Figure 8: Medium educated, share in total employed, 1995, 2007, in %

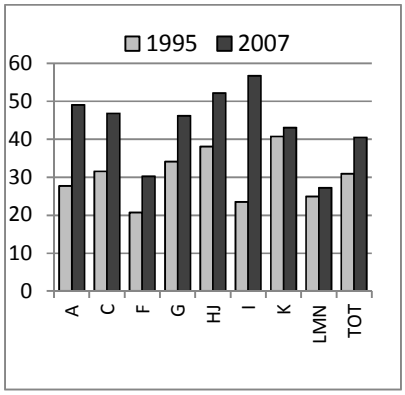
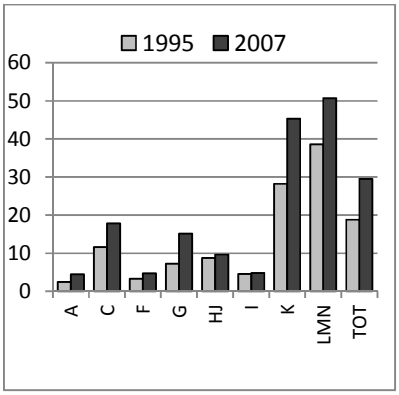
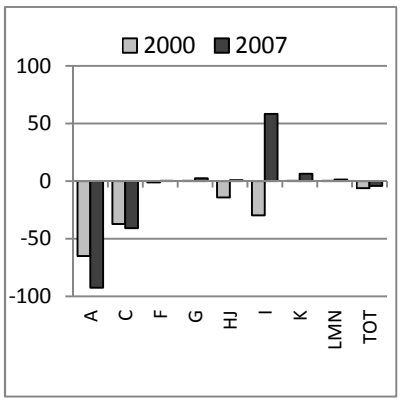


Figure 9: High educated, share in total employed, 1995, 2007, in %



Trade

Figure 10: Net trade, in % of gross output in sector



Trade deficit in terms of gross output was large in agriculture (A) and construction (C) which is to be expected given the small share these sectors have in overall employment. Net trade turned into positive in accommodation and food service activities (I). In total there is small deficit in net trade by

Country Fiche

Latvia (LV)

Value Added

In Latvia significant changes with respect to the sectoral structure can be seen. Manufacturing (C) declined from 21% to 12% and agriculture from about 10% to 4%; also the share of transportation, storage and communication (HJ) declined from 15 to 10%. On the other hand the value added share of construction increased from 5% to 9%, those of wholesale and retail trade (G) from 10% to 20% and the one of real estate and business activities from 10% to 16%. The shares of accommodation and food service activities (I) at 2-3% and financial and insurance activities (K) at 5-6% remained rather constant. Overall employment growth was strong at a rate of almost 8% with even higher growth rates achieved particularly in construction (F) and wholesale and retail trade (G). Manufacturing (C) and agriculture (A) show somewhat lower growth rates with 6% and 2% respectively.

Figure 1: Share in Total Value Added

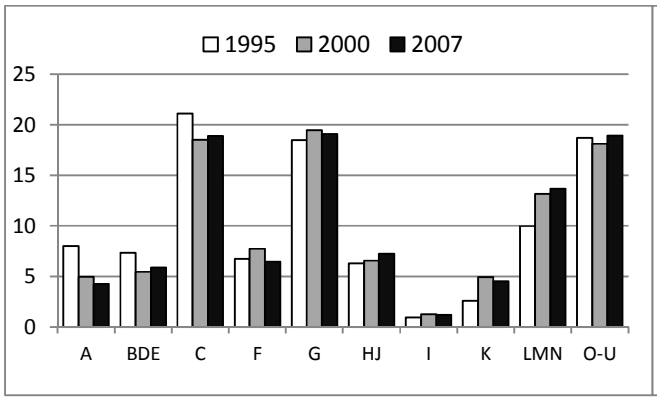
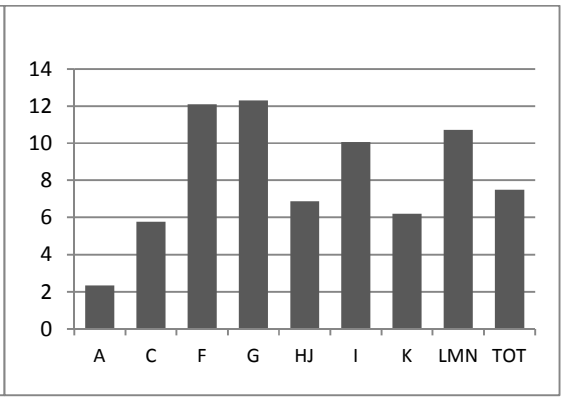


Figure 2: Value Added, real growth rates, annual average 1995-2007



Productivity

Productivity levels in terms of EU15 increased from about 30% to about 55% with much stronger catching-up taking place in agriculture (A) from 40% to 120%, construction (F) from 40% to 60% and in some services sectors though mostly only since 2000. Only in sector financial and insurance activities (K) productivity levels remained rather constant at about 60%. Overall productivity growth rate was at 6% over the whole period with even reaching 10% in agriculture and lower rates in construction (F) and financial and insurance activities (K).

Figure 3: Productivity (VA per hour worked), levels, EU15=100

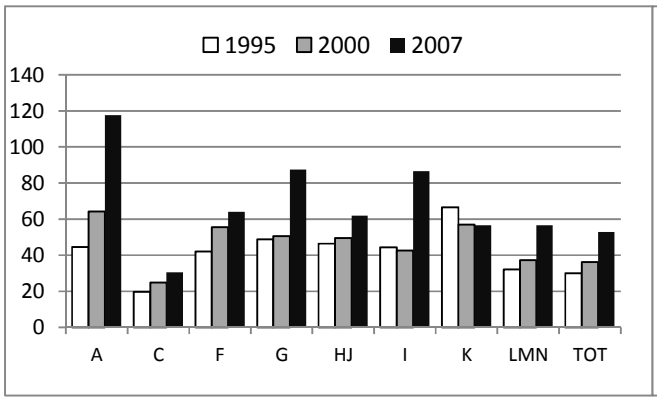
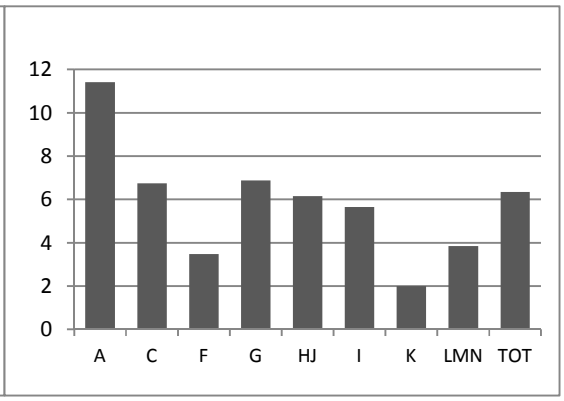


Figure 4: Productivity (VA per hour worked, growth, annual average 1995-2007



Employment

Employment shares were also changing quite strongly with the most important changes taking place in agriculture (A) with a decline from 17% to 10%, in manufacturing (C) with a decline from 20% to 15% and strong increases from 5% to 12% in construction (F) and wholesale and retail trade (G) from 12.5 to 17%. Also the employment share of real estate and business activities (LMN) increased from 4% to 7%. Shares of sectors accommodation and food service activities (I) and financial and insurance activities (K) have been rather constant at about 3%. Overall employment growth rate was modest at about 1.5% though particularly higher in construction (F) with 8% and real estate and business activities (LMN) with 7%. Employment declined in agriculture (A) at a rate of -4% and in manufacturing (C) at a rate of about -1.5%.

Figure 5: Share in Total Employment

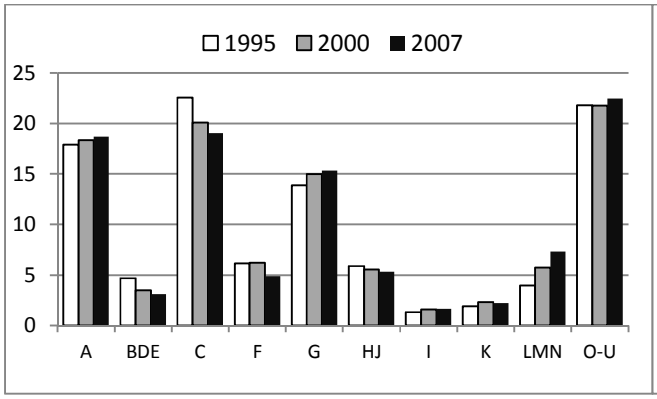
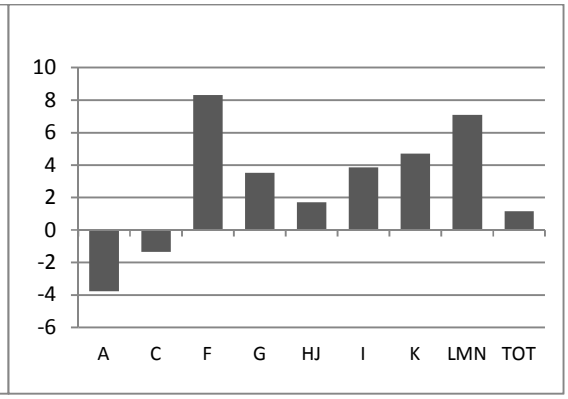


Figure 6: Employment, growth rates, annual average, 1995-2007

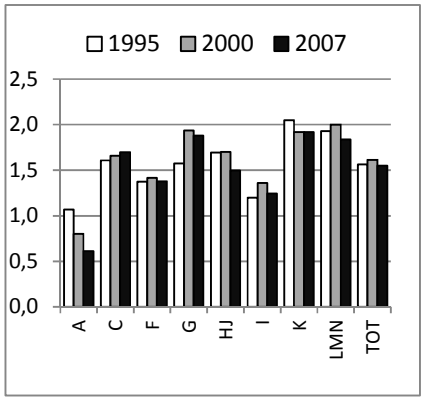


In absolute figures the number of persons employed increased from slightly less than 1 mn to about 1.1 mn. The largest sector is wholesale and retail trade (G) with 187 ths followed by manufacturing (C) with 168 ths. The smallest sector (financial and insurance activities, K) accounts for only 22 ths persons employed. Annual hours worked per person employed are rather low at 1500 hours which was also relatively constant over time. These figures are however relatively diverse across industries ranging from slightly above 600 hours (in agriculture (A) maybe due to part-time work) to almost 2000 hours in financial and insurance activities (K) and slightly less in real estate and business activities (LMN).

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1995	172	198	48	124	84	19	13	36	970
2000	136	169	56	145	78	22	15	55	945
2007	108	168	125	187	103	30	22	82	1113

Figure 7: Annual hours worked per employed, in thousand



Skill formation

The share of medium educated is at 60% with most sectors having similar shares or above. The sector financial and insurance activities (K) shows a significantly lower share with only 30%. In most cases this share was declining in accordance with the decline of medium educated workers in overall employment. This is because the share of high educated was slightly increasing from 20% to 25% which is particularly seen in the strong increase of the high educated share in financial and insurance activities (K). Also real estate and business activities (LMN) shows a significantly higher share compared to the overall share. For the other sectors the share ranges from 10% in agriculture (A) to 20% in wholesale and retail trade (G).

Figure 8: Medium educated, share in total employed, 1998, 2007, in %

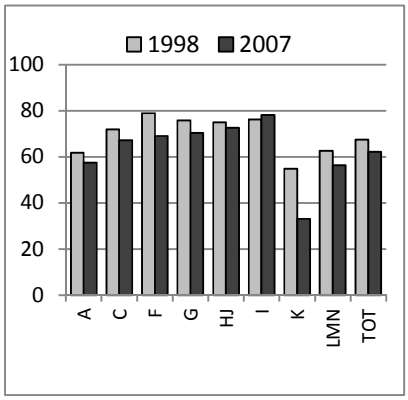
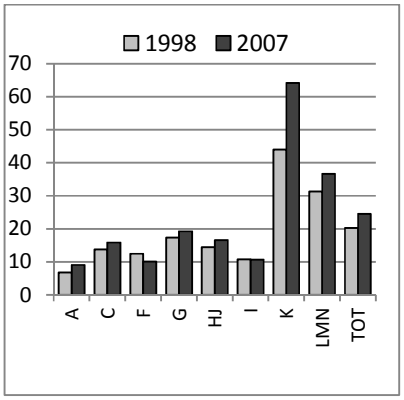


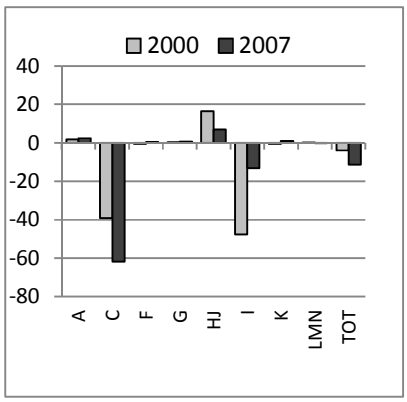
Figure 9: High educated, share in total employed, 1998, 2007, in %



Trade

Latvia has strong deficit in terms of gross output in manufacturing (C) which was slightly deteriorating. Net trade is positive in transportation, storage and communicatoin (HJ) with about 10% in terms of gross output in 2007 (with a decline from 20% in 1995). The overall net trade is at about -10% of gross output.

Figure 10: Net trade, in % of gross output in sector



Country Fiche

Malta (MT)

Value Added

Figure 1 presents the shares of value added of the selected sectors in total value added in 1995, 2000, and 2007. The largest shares are seen for manufacturing (C) with 16 % (this declined from 23% in 2000) and real estate and business activities (LMN) which increased from 13% to 17%. A significant change can also be seen in wholesale and retail trade (G) for which the share changed from 15% to 12%. The agricultural (A) share is rather constant at about 3% as is the share in construction with about 5%. Transportation, storage and communication (HJ) account for about 9-10% over the period. The share of accommodation and food service activities (I) was slightly declining to 5%. The share of financial and insurance activities is also at about this level. Overall value added growth was positive with 3% and was much higher in real estate and business activities (LMN) with 5.5%. Lower growth rates are reported in manufacturing (C), wholesale and retail trade (G), and accommodation and food service activities (I) with less than 1%.

Figure 1: Share in Total Value Added

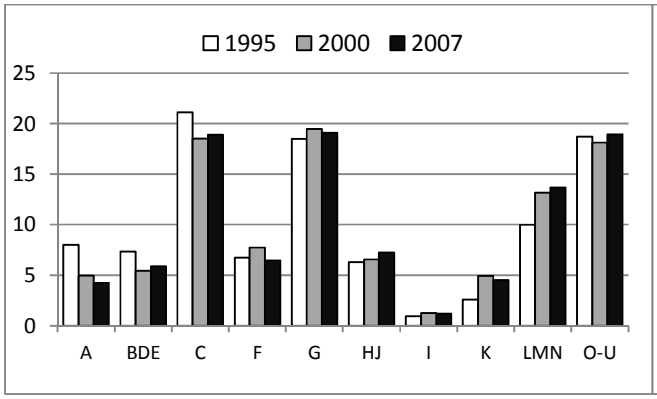
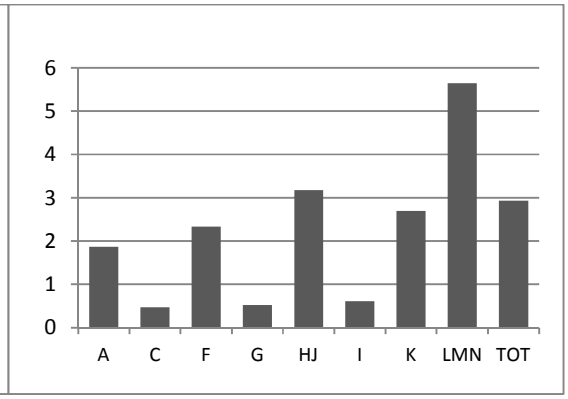


Figure 2: Value Added, real growth rates, annual average 1995-2007



Productivity

Productivity levels in Malta are at about 70% of the EU-15 with above average levels reported in agriculture (A) and particularly lower ratios in manufacturing (C) and construction (F). The overall growth rates of productivity as reported in the dataset is at 2% and sectoral growth rates are rather heterogeneous across sectors with both strong negative and positive growth rates found.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

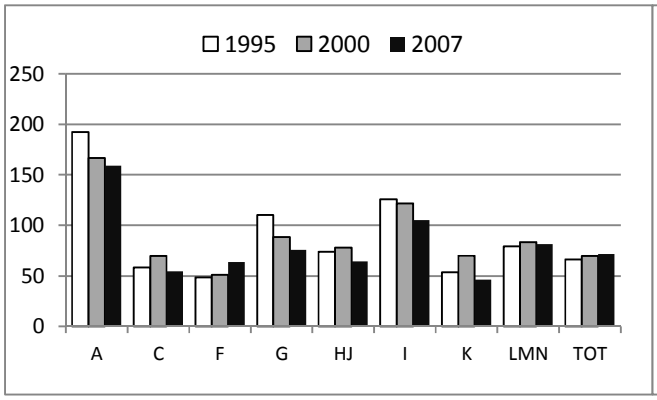
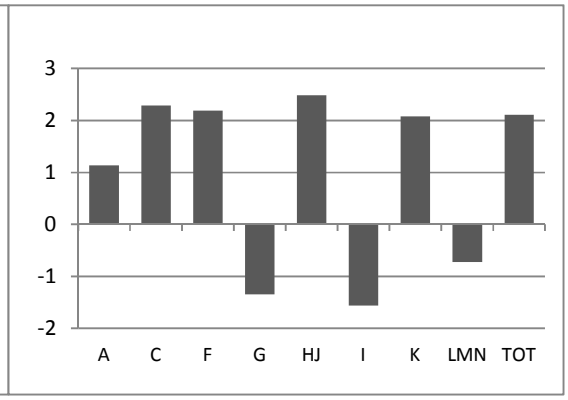


Figure 4: Productivity (VA per hour worked, growth, annual average 1995-2007



Employment

With respect to employment shares the largest sectors are manufacturing (C) and wholesale and retail trade (G) with 16%. The former declined from 24% in 1995, whereas the latter increased slightly. A relatively more pronounced increase can be seen for real estate and business activities (LMN) from slightly less than 5% to 8%. The shares in the other sectors are roughly constant with 3% in agriculture (A), 7-8% in construction (F), transportation, storage and communication (HJ) and accommodation and food service activities (I). The share of financial and insurance activities was at about 4% over the period. Overall employment growth was positive at 1% with a much higher ate in real estate and business activities (LMN) at 6.5% and a negative employment growth rate in manufacturing (C) with -1.2%.

Figure 5: Share in Total Employment

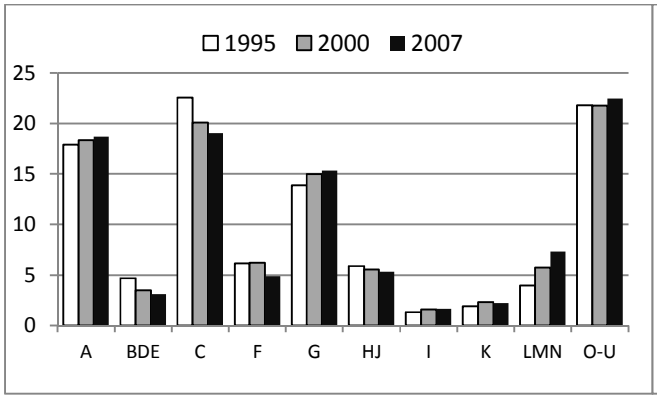
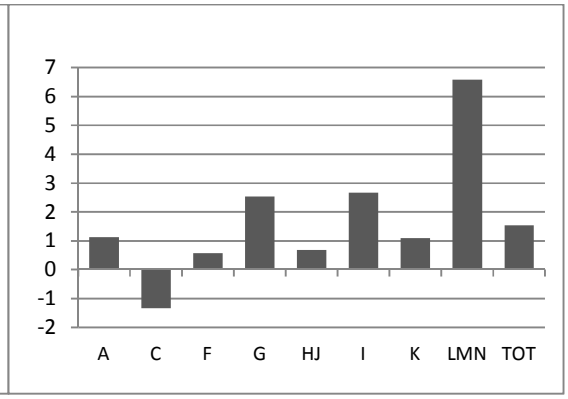


Figure 6: Employment, growth rates, annual average, 1995-2007

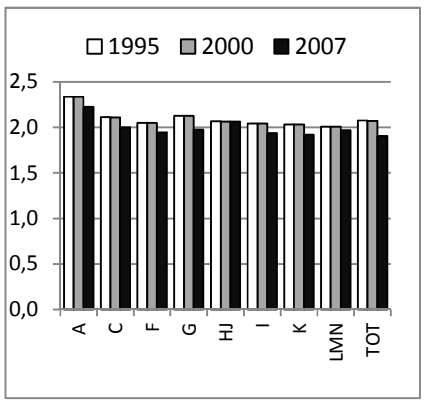


Employment in absolute numbers therefore increased from 140 ths to almost 170ths. The range in absolute numbers is from 4.3 ths in agriculture (A) to about 27 ths in manufacturing (C). Annual hours worked per person employed are at about 1900 hours though slightly declined since 1995. Figures are higher in agriculture (A) with about 2300 hours.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1995	3.7	32.1	10.9	19.7	11.6	10.0	4.9	6.4	138.9
2000	3.6	30.4	10.9	22.6	12.2	12.0	5.4	8.7	150.3
2007	4.3	27.4	11.7	26.5	12.6	13.7	5.6	13.7	166.8

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated workers is rather low with only 20% and was hardly changing over time. Medium educated account for a much higher share of almost 50% in financial and insurance activities (K). In agriculture (A) the share is less than 10%. The share of high educated is at about 20% with a string increase of about 10pps from 2000 on. Higher shares are reported in real estate and business activities (LMN) with 40% and financial and insurance activities (K) with 30%. These shares have been increasing throughout all sectors.

Figure 8: Medium educated, share in total employed, 1998, 2007, in %

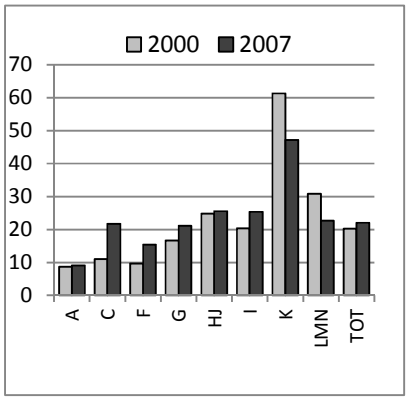
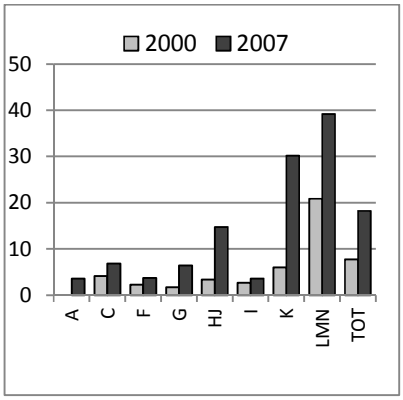
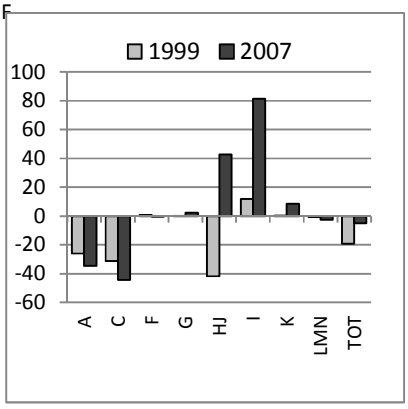


Figure 9: High educated, share in total employed, 2000, 2007, in %



Trade



trade,
in % of gross output in sector

Malta shows negative net trade in both agriculture (A) and manufacturing (C) with ratios to gross output of -35% and less than -40%. In 2007 net trade in terms of gross output becomes positive in transportation, storage and communication (HJ) and accommodation and food service activities. Nonethelss, overall net trade remained negative though to a smaller extent.

Country Fiche

Netherlands (NL)

Value Added

In the Netherlands the share of real estate and business activities (LMN) in total value added increased from 10% to almost 23% since 1975 and declined from 22% to 13% in manufacturing (C) and from 5% to 2% in agriculture (A). The share of financial and insurance activities (LMN) also increased slightly from 4.5% to 6% and of wholesale and retail trade from 12% to 13%. The shares of the other sectors are roughly constant with 5% (construction, F), 7% (transportation, storage and communication, HJ) and 2% (accommodation and food service activities, I). Overall employment growth was at 2.5% with higher growth rates achieved in wholesale and retail trade (G), transportation, storage and communication (HJ), financial and insurance activities (K) and real and estate activities (LMN) with growth rates around 4%. Only the growth rate in construction (F) with 0.25% was well beyond the overall growth rate.

Figure 1: Share in total value added

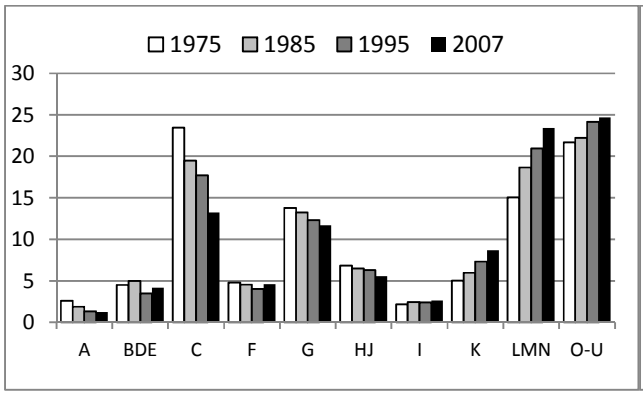
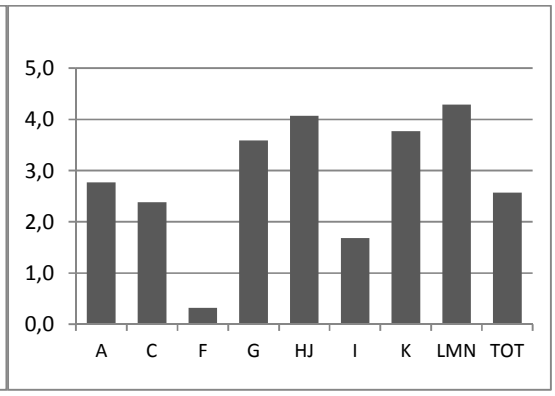


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

Productivity levels have always been above the EU-15 average though converged from above in the latter decades. According to data, productivity levels in agriculture (A) have been well beyond the EU-15 however declined strongly whereas in the other sectors the distance was between 10 and 50% though with no clear pattern over time. Only in real estate and business activities the productivity levels tend to be lower than those in the EU-15 and constantly so.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

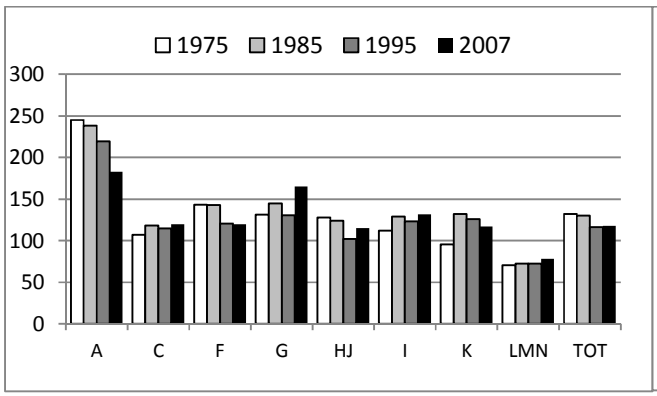
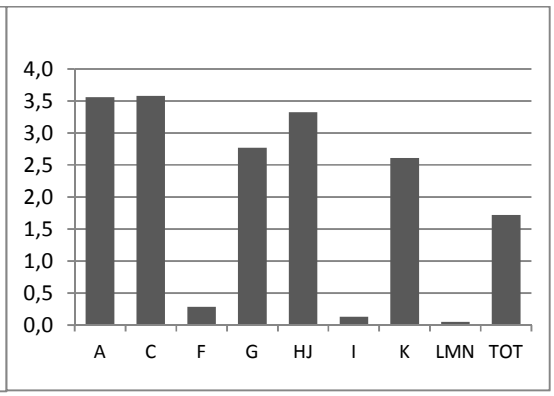


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

With respect to employment shares there was a strong decline in shares of manufacturing from 22% to 10% and strong increase in real estate and business activities from 7% to almost 20%. Shares in agriculture (A) and construction (F) declined from 5.5 to 3% and 8 to 6% respectively. Shares in the other sectors are roughly constant with 5-6% (transportation, storage and communication, HJ), 4% (financial and insurance activities, K, and accommodation and food service activities, I, where the shares tended to increase). Overall employment growth rate was positive with about 1.5% over the whole period and particularly strong in accommodation and food service activities (I) with 3% and real estate and business activities (LMN) with 4.5%. Employment declined in agriculture (A) at a rate of -0.5% and manufacturing at a rate of almost -1%.

Figure 5: Share in Total Employment

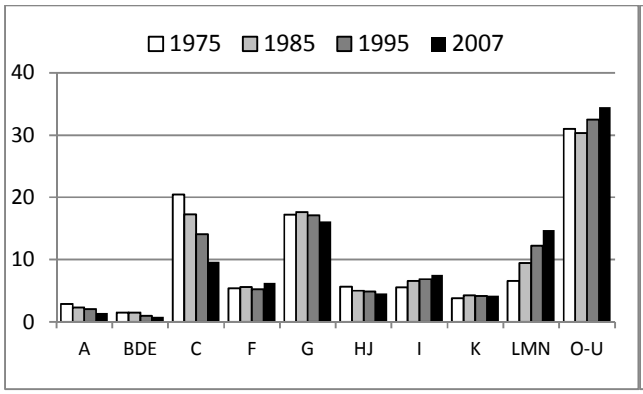
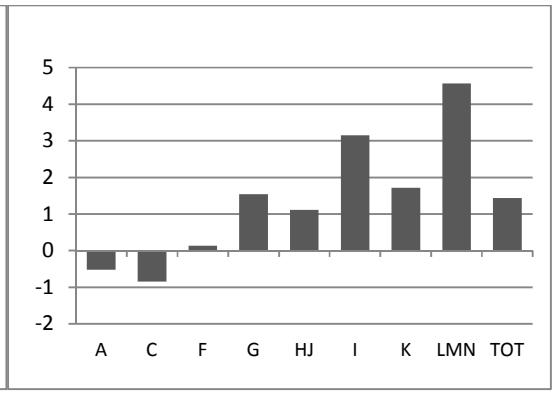


Figure 6: Employment, growth rates, annual average, 1975-2007

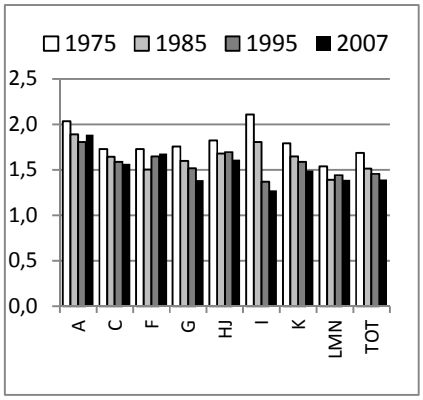


Employment in absolute numbers therefore increased from 5.5 mn to 8.6 mn over the period 1975-2007. Sector G (wholesale and retail trade) accounts for 1.43 mn persons employed and LMN (real estate and business activities) for 1.6 mn. Average hours worked per person employed declined relatively strongly from 1650 hours to 1400 hours with declines visible in all sectors but particularly in accommodation and food service activities (I). Hours worked in agriculture (A) are with 1800 hours well above the average.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	306	1212	475	874	333	118	168	385	5459
1985	296	1030	369	897	362	148	204	576	5882
1995	283	1030	426	1196	411	264	234	1014	7155
2007	259	923	495	1429	474	320	289	1608	8613

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated is at about 50% for total employment with shares going up to 60% in construction (F) and wholesale and retail trade (G) but are below this benchmark in real estate and business services (LMN). The shares increased in agriculture (A), manufacturing (C), construction (F), transportation, storage and communication (HJ) though in some cases only slightly and decreased in all other sectors. This was mainly the case because the shares of high educated increased and strongly so in financial and insurance activities (K) and real estate and business services (LMN) to 45% from 29 and 38% respectively. The share of high educated in the total economy are at 32% (increased from 24%) and are in between less than 10% and up to 20% in the remaining sectors.

The share of ICT capital increased in all sectors and particularly strongly in financial and insurance activities (K). For the total economy the share increased from 20% to 30% over the period 1995-2007. In the other sectors the shares range from 10% in agriculture (A) to 40% in wholesale and retail trade (G) and transportation, storage and communication (LMN).

Figure 8: Medium educated, share in total employed, 1996, 2007, in %

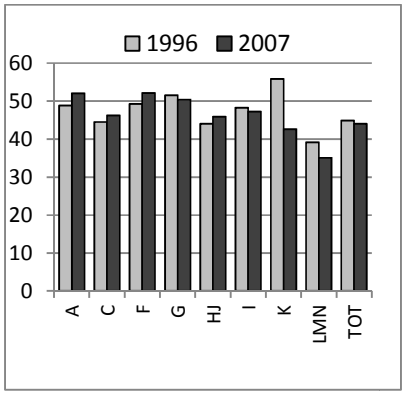


Figure 9: High educated, share in total employed, 1996, 2007, in %

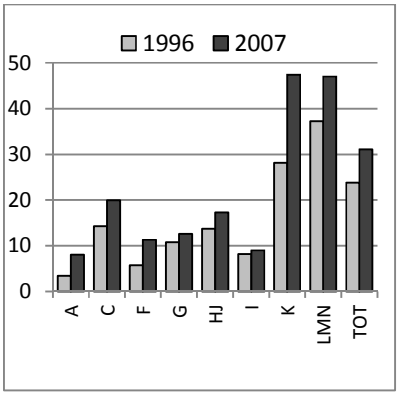
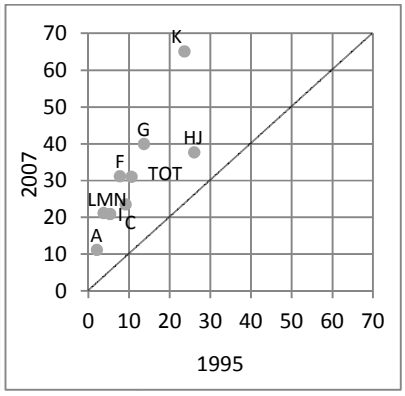


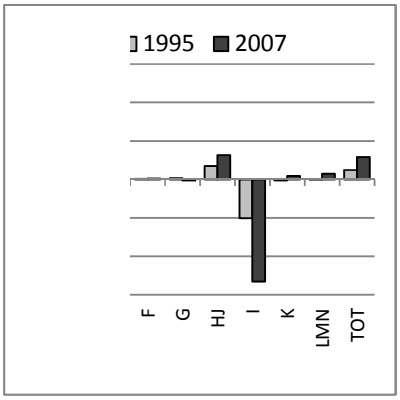
Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector

Net trade of Netherlands is positive in total with a ratio of about 5% to gross output and particularly so in agriculture (A) with 20% and manufacturing (C) with 22% in 2007. A strong negative ratio is only to be found in accommodation and food service activities with -25%. A surplus is finally achieved in transportation, storage and communication (HJ) with a ratio to gross output of about 6%.



Country Fiche

Norway (NO)

Value Added

Norway underwent a transformation in the way that the share of manufacturing declined from 22% in 1975 to about only 10% in 2007. Also the shares of wholesale and retail trade (G) declined from 15 to 8% and the share for transportation, storage and communication from 12 to 7%. The share of agriculture which was only 5% already in 1975 declined to 2%. The only sector in this sample which gained in shares was real estate and business services (LMN) which increased from 10% to almost 15%. The construction sector (F) is rather stable at 5% since 1985. Financial and insurance activities hold a share of 4% which slightly increased and accommodation and food service activities a share of 2%. Growth rates have been positive in all sectors with wholesale and retail trade (G) being the fastest growing sector with 5% followed by transportation, storage and communication (HJ) and real estate and business activities (LMN) with about 4% each. Agriculture (A), manufacturing (C) and construction (F) show growth rate of around 1%.

Figure 1: Share in Total Value Added

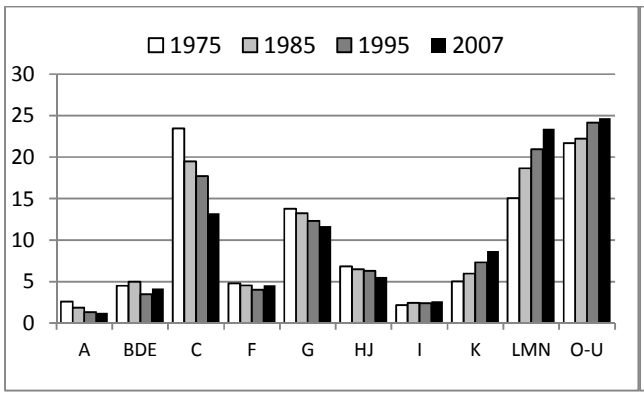
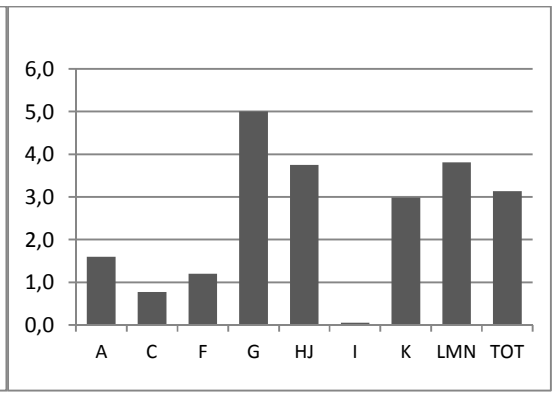


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

Productivity levels have been higher than in the EU-15 throughout the whole period with an even increasing ratio up to 140%. Most of the sectors show higher productivity levels than the EU-15, particularly agriculture (A) and wholesale and retail trade (G). Productivity levels however also declined in some industries, notably in manufacturing (C) and are constant at EU-15 level in others.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

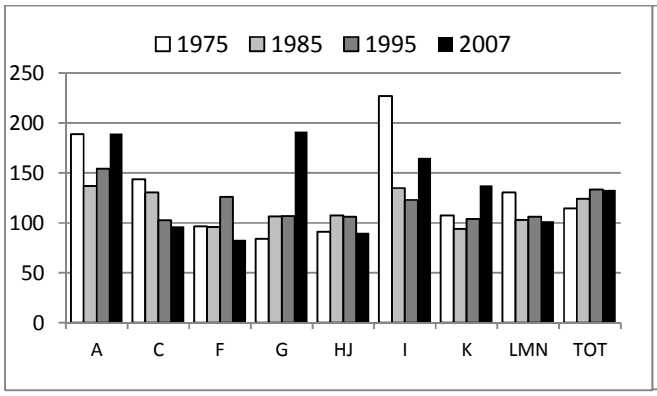
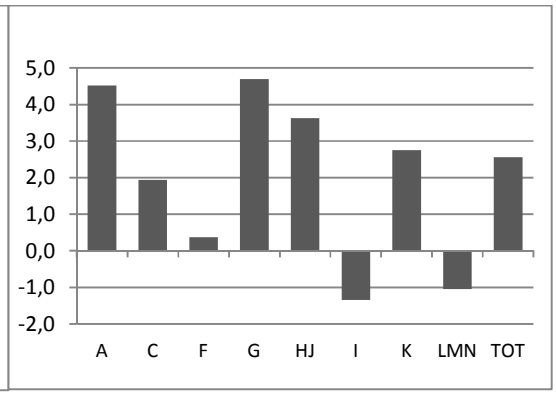


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

Similarly to the developments in value added shares, the share of manufacturing employment declined quite strongly from 22% to 11% over the period 1975 to 2007 and in agriculture in the same period from 10% to 2.5%. A strong increase in employment shares occurred in real estates and business activities (LMN) from 3.5% to 12%. Shares in the other sectors changed less strongly with construction now holding share of about 7%, wholesale and retail trade of 14%, and transportation, storage and communication (HJ) at 8%; both declined by about 2-3 percentage points since 1975. The remaining two sectors account for about 2-3%. Employment growth rates have been negative in agriculture (A) with -2.5% and manufacturing with roughly -1%. The growth rate was highest in real estate and business activities (LMN) with more than 5% and accommodation and food service activities (I) with 2%. The other sectors have grown at a rate equal or slightly less than those for the total economy of 1.1%.

Figure 5: Share in Total Employment

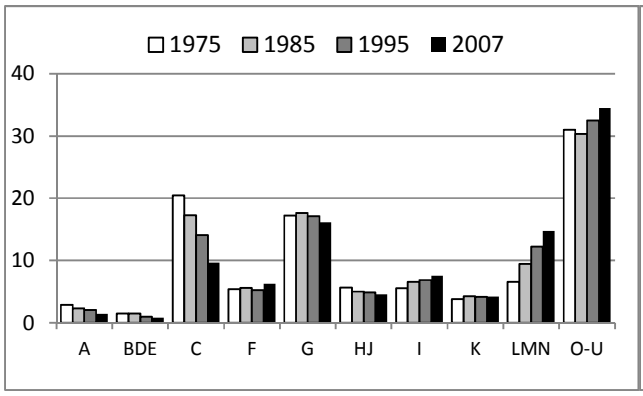
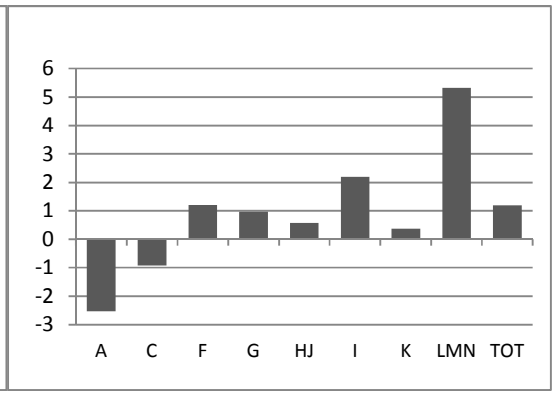


Figure 6: Employment, growth rates, annual average, 1975-2007

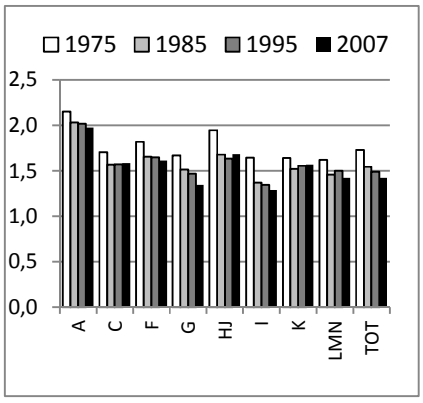


Total employment thus increased from 1.7 mn to 2.54 mn persons. The largest sectors account for 364 ths. in case of wholesale and retail trade (G) and 302 ths in case of real estate and business activities (LMN). The smallest sectors account for only 79 ths (accommodation and food service activities, I) and 48 ths (financial and insurance activities, K). Hours worked per person employed are relatively small with 1400 hours (which declined from 1700 since 1975). These hours worked per person employed show all a negative trend and are lowest in wholesale and retail trade (G) and accommodation and food service activities (I) and highest in agriculture (A) with still about 2000 hours per person employed.

Table 1: Employment in sectors, 2007, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	168	384	126	268	170	39	42	57	1737
1985	147	334	139	317	189	57	61	113	2040
1995	108	297	114	305	199	69	54	143	2120
2007	74	286	184	364	204	79	48	302	2536

Figure 7: Annual hours worked per employed, in thousand



Skill formation

The share of medium educated in total employment is at about 45% and declined from almost 60% in 1996. This decrease has occurred in all sectors and was strongest in financial and insurance activities (K) where it dropped from 62% to 43%. Shares in all sectors are higher compared to the total with the exception of real estate and business activities showing a share of 35%. The latter sector is however characterized by a high share of high educated workers (50%) which also occurs in financial and insurance activities (K). The other sectors hold very little shares with less than 20% (e.g. manufacturing C and transportation, storage and communication (HJ). These four are also the ones where employment shares of high educated are growing.

Figure 8: Medium educated, share in total employed, 1996, 2007, in %

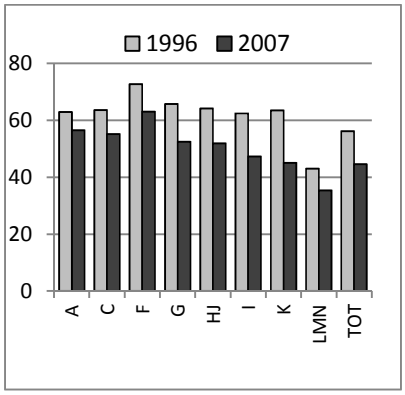
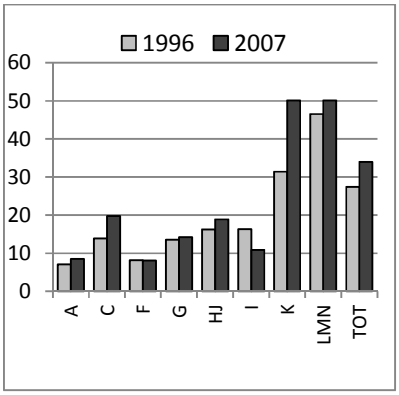
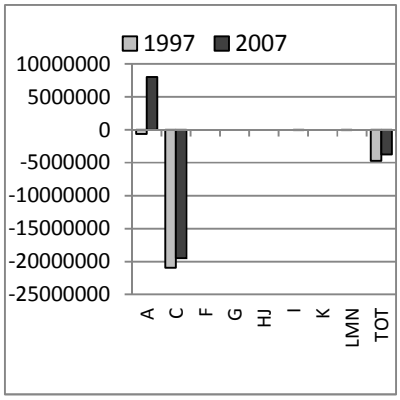


Figure 9: High educated, share in total employed, 1996, 2007, in %



Trade

Figure 10: Net trade, in % of gross output in sector



Country Fiche

Poland (PL)

Value Added

The shares of value added in total value added in Poland are highest in manufacturing (C) and wholesale and retail trade (G) with 18%. The former share dropped from about 21% since 1995. The shares also declined in agriculture (A) from 8% to 4%. The strongest increase happened in real estate and business activities (LMN) from 10% to 14% and from 3% to 5% in financial and insurance activities (K). the share of transportation, storage and communication (HJ) also slightly increased to 7%. The share of construction (F) fluctuates around 7% whereas the one for accommodation and food service activities at around 2%. Overall employment growth rate has been positive with 4% in total but also positive in all sectors of the economy. Particularly strong growth rates are seen in financial and insurance activities (K) with 12% and manufacturing with slightly less than 7%. Growth rates in agriculture (A) with 1%, construction (F) with 2% and real estate and business activities with 2.5% are below the total one.

Figure 1: Share in Total Value Added

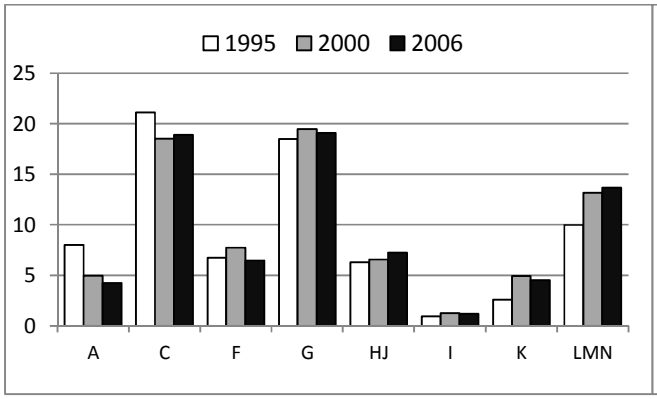
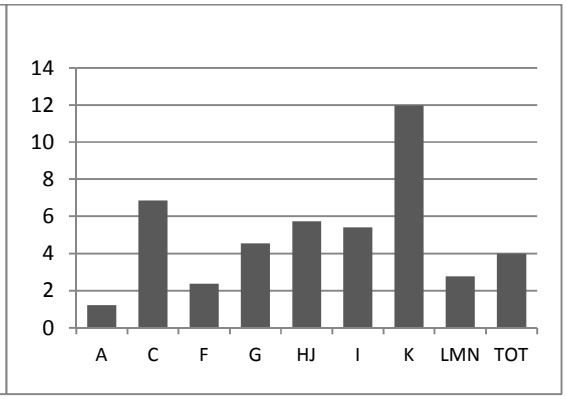


Figure 2: Value Added, real growth rates, annual average 1995-2006



Productivity

Overall productivity compared to EU-15 increased from 40% to 55% with particularly high levels already reached in construction (F), wholesale and retail trade (G) and accommodation and food service activities (I). Here a strong catching-up process took place which also can be seen in manufacturing (C) reaching now 50% and financial and insurance activities (K) reaching 75%. Relative productivity levels in agriculture (A) with 30% and real estate and business activities (LMN) with 55% are rather stagnant.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

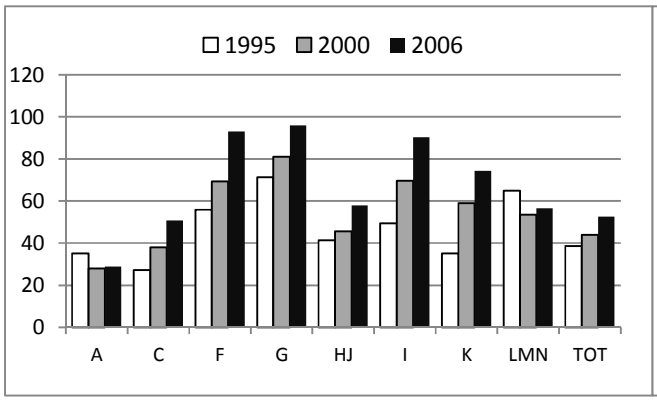
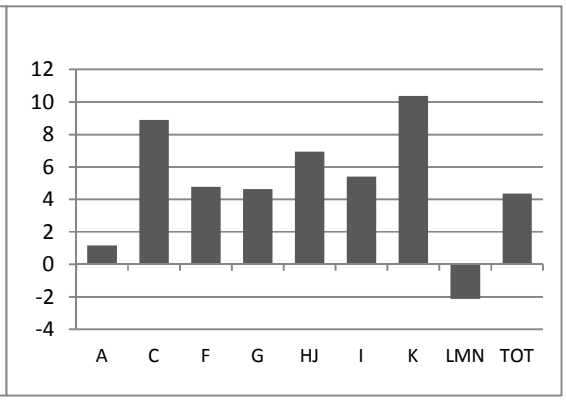


Figure 4: Productivity (VA per hour worked, growth, annual average 1995-2006



Employment

The highest employment shares are seen in manufacturing (C) with 18% (declining from 23%) and agriculture (A) with also 18%. The share of real estate and business activities (LMN) was increasing from 4% to 7% and in wholesale and retail trade from 14 to 15%. The share of construction in 2006 was at 5%, similar to transportation, storage and communication (HJ). The shares for accommodation and food service activities (I) and financial and insurance activities (K) are rather stagnant at 2%. Overall employment growth rate was close to zero (slightly negative) and only strongly positive in real estate and business activities (LMN) with 5.5% and maybe accommodation and food service activities (I) with 2%. Strong negative growth rates occurred in manufacturing (C) with -1.5%, construction (F) with -2% and transportation, storage and communication (HJ) with -1%.

Figure 5: Share in Total Employment

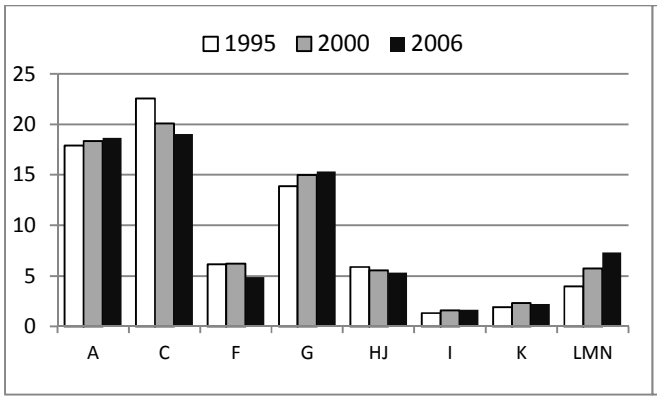
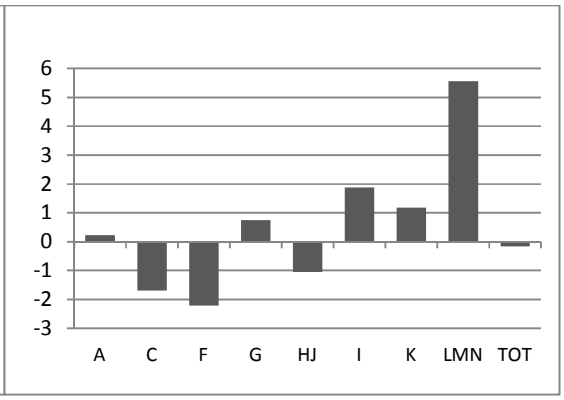


Figure 6: Employment, growth rates, annual average, 1995-2006

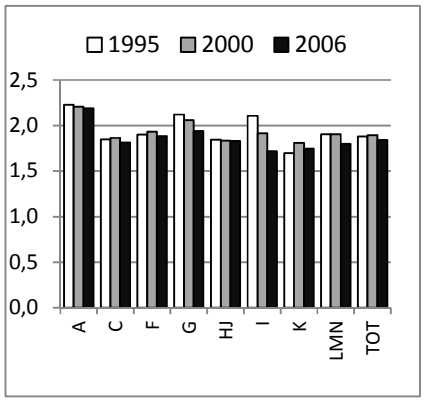


Total employment in number of persons employed declined from 13.7 mn to 13.4 mn over the period 1995-2006. The two largest sectors (agriculture, A, and manufacturing, C) take account of about 2.5 mn each, followed by wholesale and retail trade (G) with 2.06 mn. Real estate and business activities take account of almost 1 mn persons. Average hours worked per person employed are rather constant at about 1850 hours with higher numbers in agriculture (A) with 2200 hours. The hours worked declined in wholesale and retail trade (G) from 2100 to 1900 and accommodation and food service activities (I) from 210 to 1700.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1995	2448	3087	840	1898	803	181	260	542	13679
2000	2556	2799	865	2084	773	221	319	799	13928
2006	2508	2557	657	2059	715	222	296	983	13434

Figure 7: Annual hours worked per employed, in thousand



Skill formation

The share of medium educated workers was roughly constant at 70%. The shares have been relatively higher in manufacturing (C), wholesale and retail trade (G), transportation, storage and communication (HJ) and accommodation and food service activities (I) with 80% and construction (F) with 78%. The shares in financial and insurance activities (K) and real estate and business activities (LMN) are lower with 42% and 55% respectively. Apart from the fall of the share in financial and insurance activities (K) from 55 to 42% the shares only changed modestly though only a short period (2004-2007) is covered. The share of high educated only slightly increased from 20 to 22%. Shares are much higher in financial and insurance activities (K) and real estate and business activities (LMN) where these also increased strongest. Shares in the other sectors apart agriculture are at about 10 to 15%; in agriculture (A) the share of high educated is at less than 5%.

Figure 8: Medium educated, share in total employed, 2004, 2007, in %

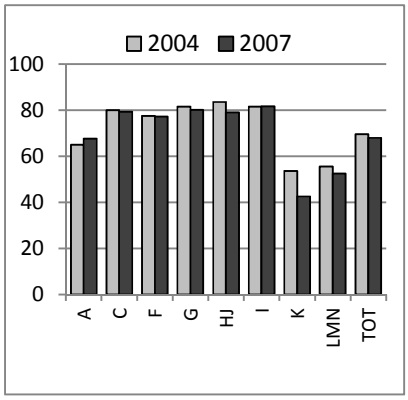
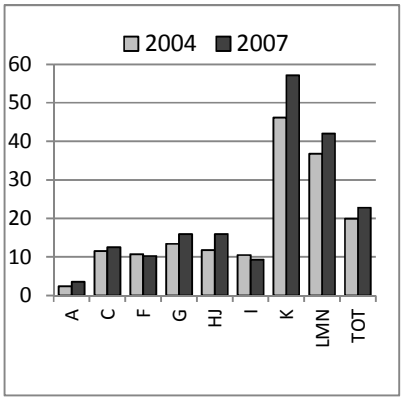


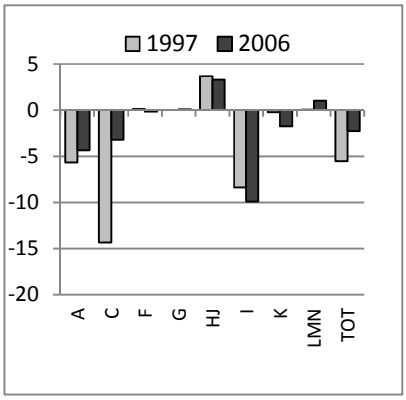
Figure 9: High educated, share in total employed, 2004, 2007, in %



Trade

Net trade in Poland was strongly negative in 1997 with a ratiof -5% in terms of gross output which however declined to -2% in 2006. This was particularly driven by a decrease in the trade deficit in manufacturing (C) from -15 to -3% and agriculture (A) from -5.5 to -4%. Net trade in accommodation and food service activities is still at -10% relative to gross output. A significant surplus is seen in transportation, storage and communication (HJ) with +4%.

Figure 10: Net trade, in % of gross output in sector



Country Fiche

Portugal (PT)

Value Added

Between 1975 and 2007, increases in the shares of value added in total value added were, if accomplished at all, rather modest: the shares increased in accommodation and food service activities (I), from 1% in 1975 to around 4% in 2007, in financial and insurance activities (K), from 4% in 1975 to 6% in 2007 and in transportation and storage (HJ), from 5% in 1975 to 6% in 2007. Starting in 1985, real estate and business activities (LMN) started to slowly approach its 1975-level again. Value added shares decreased in all other sectors, except for construction (F) which maintained a constant share over time. These developments are reflected in real value added growth rates which were positive in all sectors and above country level in transportation and storage (HJ) and financial and insurance activities (K) only.

Figure 1: Share in Total Value Added

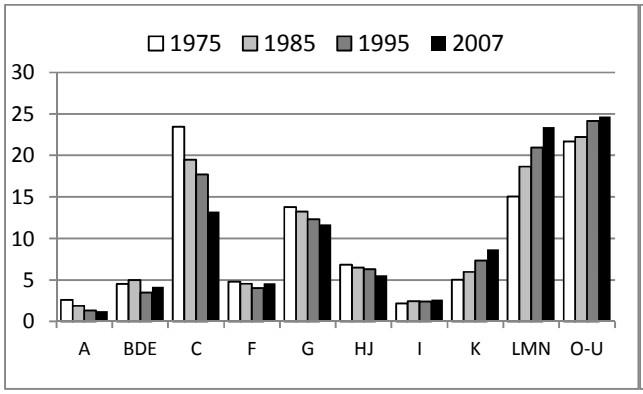
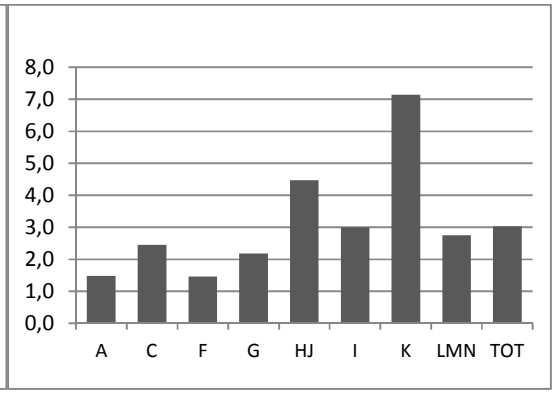


Figure 2: Value Added, real growth rates, annual average 1975-2006



Productivity

At the level of the total economy, the productivity level of Portugal stayed significantly behind the EU15 and only reached 50% of the overall EU15 productivity level in 2006. Some modest catching up took place in agriculture (A) (except for 2006), manufacturing (C), construction (F), transportation and storage (HJ) and accommodation and food service activities (I). Only financial and insurance activities (K) successfully caught up with and even surpassed EU15 productivity levels after 1995. In contrast, real estate and business activities (LMN) lost and fell below the EU15 productivity level after 1985.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

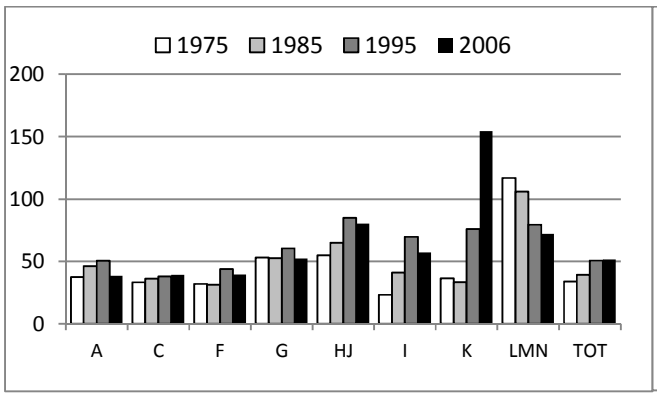
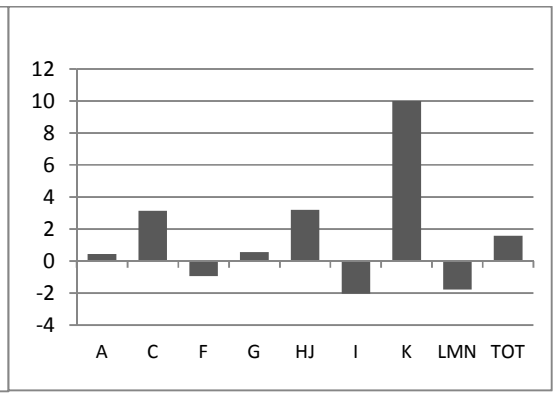


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2006



Employment

Between 1975 and 2006, the share in total employment dropped in agriculture (A), from 27% in 1975 to 11% in 2006 and in manufacturing (C), from 24% in 1975 to 17% in 2006. It increased in wholesale and retail trade (G) and accommodation and food service activities (I) but most significantly in real estate and business activities (LMN), from 1% in 1975 to 6% in 2006. All other sectors maintained their shares in total employment. This is reflected in annual employment growth rates which were negative in agriculture (A) and manufacturing (C) only but were above average country level in all other sectors.

Figure 5: Share in Total Employment

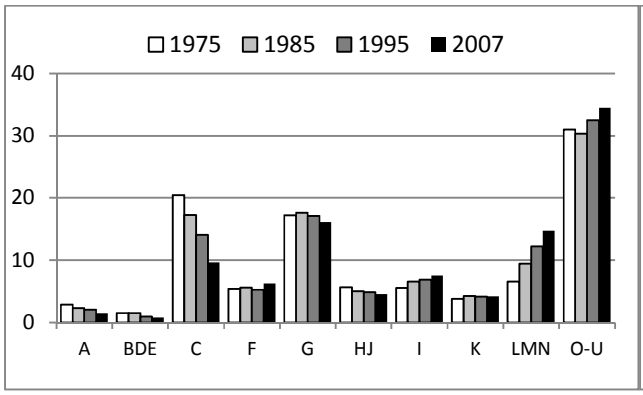
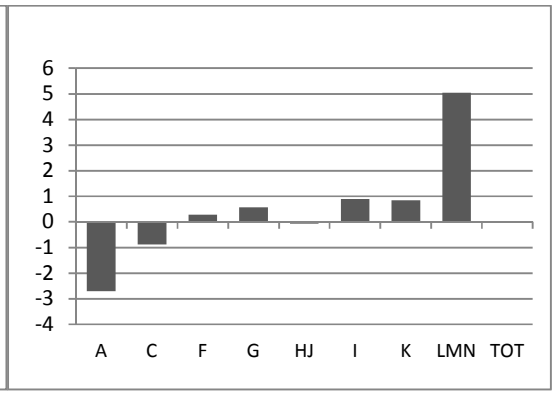


Figure 6: Employment, growth rates, annual average, 1975-2006



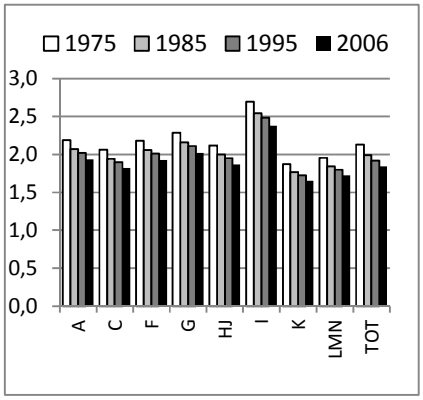
In absolute terms, employment more than halved in agriculture (A) (from 1.4 mn persons in 1975 to 0.6 mn persons in 2006) but underwent more modest losses in manufacturing (C) (from 1.2 mn persons in 1975 to 0.9 mn persons in 2006). Employment increased the most in real estate and business activities (LMN) (from 0.01 mn persons in 1975 to 0.3 mn persons in 2006) and in 2006, wholesale and retail trade (G) was the most important employer among all sectors considered.

Between 1975 and 2006, hours worked decreased in all sectors, without exception. In 2006, only manufacturing (C), financial and insurance activities (K) and real estate and business activities (LMN) had below average hours worked levels.

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	1418	1198	480	749	204	237	65	71	5085
1985	1075	1197	474	763	204	262	99	108	5076
1995	663	1023	425	725	169	212	95	213	4589
2006	606	909	524	893	199	313	84	327	5127

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

Between 1995 and 2006, except for financial and insurance activities (K) and real estate and business activities (LMN), the share of medium educated workers in total employed increased in all sectors. It increased the most in accommodation and food service activities (I), from 9% in 1995 to around 17% in 2006. In 2006, only agriculture (A), manufacturing (C) and construction (F) had below average shares of medium educated workers in total employed. The share of high educated workers in total employed increased in all sectors - except for real estate and business activities (LMN) – and increased the most in financial and insurance activities (K). In 2006, only financial and insurance activities (K) and real estate and business activities (LMN) had above average shares of high educated workers in total employed.

Figure 8: Medium educated, share in total employed, 1995, 2006, in %

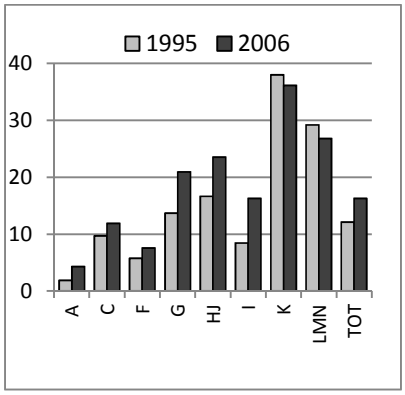
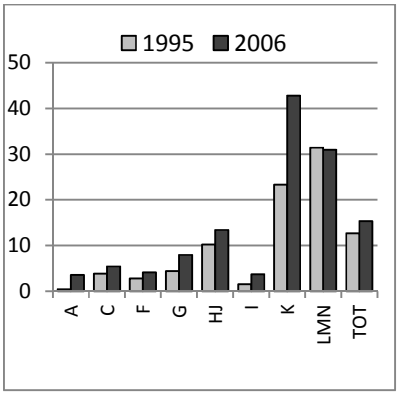


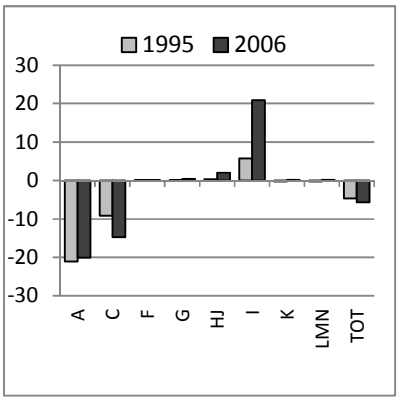
Figure 9: High educated, share in total employed, 1995, 2006, in %



Trade

In both, 1995 and 2006, Portugal ran a trade deficit. At the sectoral level, this was matched by agriculture (A) and manufacturing (C) and construction (F). In contrast, wholesale and retail trade (G), financial and insurance activities (K) and real estate and business activities (LMN) all improved their trade positions and moved from being net importers in 1995 to being net exporters in 2006. Both transportation and storage (HJ) and accommodation and food service activities (I) further strengthened their positions as net exporters.

Figure 10: Net trade, in % of gross output in sector



Country Fiche

Romania (RO)

Value Added

Figure 1 indicates the value added shares of the selected sectors in the total economy. The most important changes occurred in the agricultural sector (A) which declined from 18% in 1996 to 7% in 2006. A less significant decline is observed in manufacturing (C) which dropped from 27% to 24%, financial and insurance activities (K) from 5 to 3%, and in accommodation and food service activities (I). The shares for the other sectors increased partly strongly: in construction (F) from 6 to 10%, in transportation, storage and communication from 8 to 12% and in real estate and business activities from 10 to 14% and also in wholesale and retail trade (G) from 9 to 12%. The growth rate of real value added was 3% from 1996-2007 and only negative in agriculture (A) with -2%. Comparatively strong growth rates can be seen in construction (6.5%), wholesale and retail trade (8%) and real estate and business activities (LMN) with 4.5%. Industry accommodation and food service activities grew only by less than 1%.

Figure 1: Share in Total Value Added

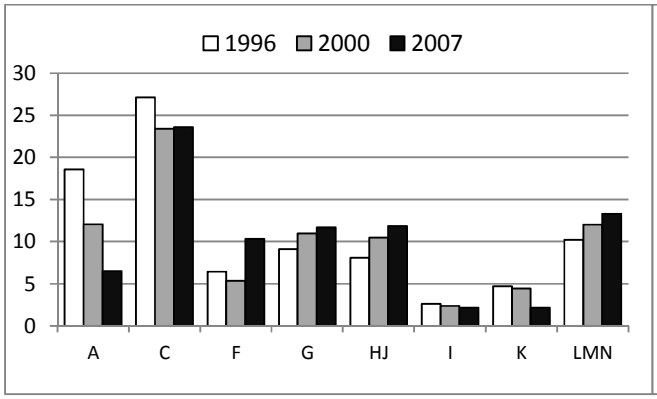
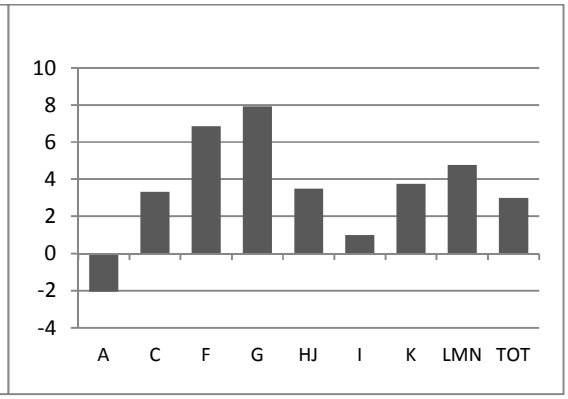


Figure 2: Value Added, real growth rates, annual average 1996-2007



Productivity

In terms of productivity relative to EU15 Bulgaria is still lagging far behind with only 15% which however increased from 10% in 1999. A catching-up process can be observed in all sectors with the exception of financial and insurance activities which declined from almost 30% to 25%. Accommodation and food service activities (I) and real estate and business activities reach 55 and 40% of EU15, respectively. Agriculture (A) and manufacturing (C) still reach levels of only 11 and 12% of EU15, respectively.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

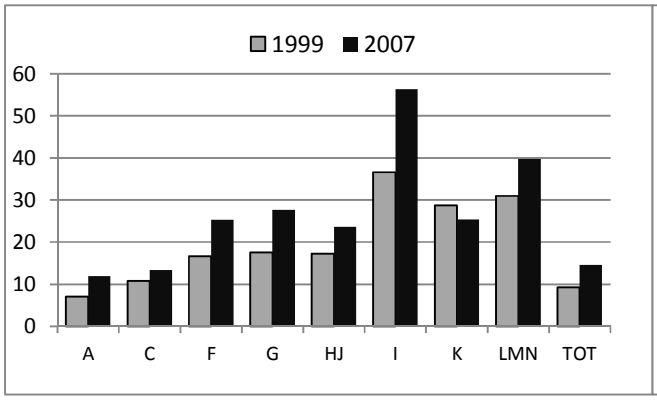
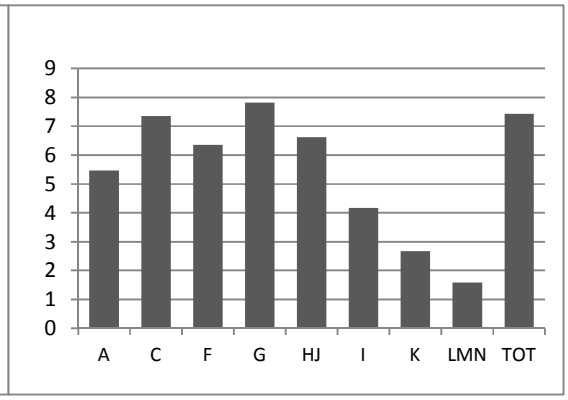


Figure 4: Productivity (VA per hour worked, growth, annual average 1999-2007



Employment

Employment shares are still highest in agriculture (A) with 30% which came down from almost 50% (after a strong increase) in 2000. This is followed by manufacturing (C) with 20% which is rather stable in the longer perspective and wholesale and retail trade (G) with 12%. Employment shares of the other sectors are less than 10% with construction (F) accounting for 8% and transportation, storage and communication accounting for 5%. Real estate and business activities only account for about 4% and the other two remaining sectors even for less. Total employment was rather stagnant however agriculture (A), manufacturing (C) and transportation, storage and communication faced strongly negative growth rates with less than -1%. Strong positive growth rates have been achieved in construction (F) with 3%, wholesale and retail trade with 3.5% and financial and insurance activities with 3%. Growth rates in the two remaining sectors – accommodation and food service activities (I) and real estate and business service activities (LMN) – have been positive at 1%.

Figure 5: Share in Total Employment

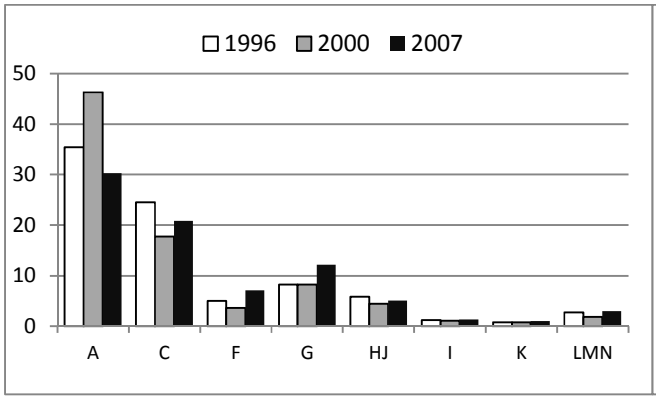
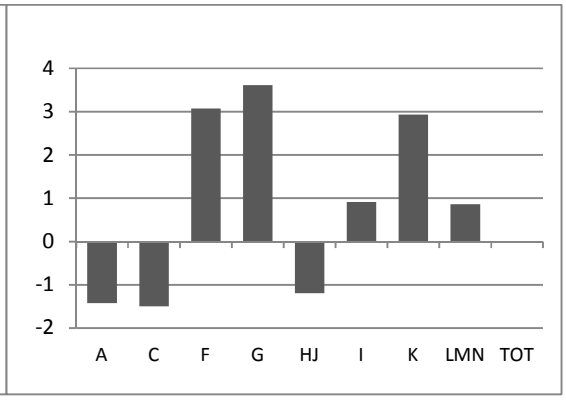


Figure 6: Employment, growth rates, annual average, 1996-2007

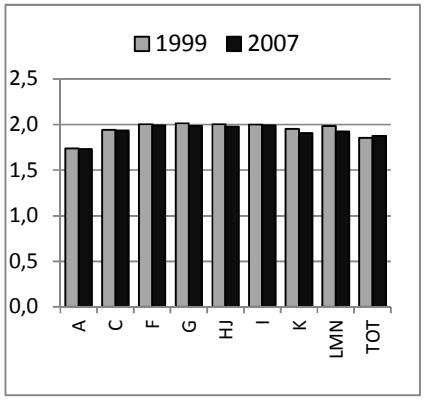


In absolute terms employment in the longer perspective was stagnant with an interim increase in 2000. Employment in agriculture (A) as the largest sector is 2.8 mn followed by manufacturing with 1.95 mn. This is followed by wholesale and retail trade with 1.14 mn and construction (F) with 0.66 mn. Annual hours worked have been at about 1800 hours in total with lower numbers in agriculture (A) and higher numbers in the other sectors with hours worked per employed person reaching 2000 hours in construction (F), wholesale and retail trade (G), and accommodation and food service activities (I).

. Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1996	3326	2301	474	772	547	116	71	258	9379
2000	4988	1913	387	888	477	120	87	194	10772
2007	2840	1949	662	1140	479	128	98	283	9365

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated was increasing from 50 to 61% between 1997 and 2007. The shares in manufacturing (C) with 80%, wholesale and retail trade (G) with 78%, transportation, storage and communication (HJ) and accommodation and food service activities (I) with 80% are well above this level. In all these sectors the shares increased by about 5 percentage points on average. Shares in agriculture (A) strongly increased from 30 to 40% and strongly decreased in financial and insurance services (K) from 60 to 40%. Also shares in real estate and business activities (LMN) are well below the total. With respect to high educated the share in total employment is at about 15% with levels well beyond that in financial and insurance activities (K) which also shows a strong increase from 38 to 60% and real estate and business activities (LMN) facing a decline from 49 to 42%. The share of high educated is relative low in agriculture (A) with 2% and is relatively similar to total at 10% for the remaining sectors.

Figure 8: Medium educated, share in total employed, 1997, 2007, in %

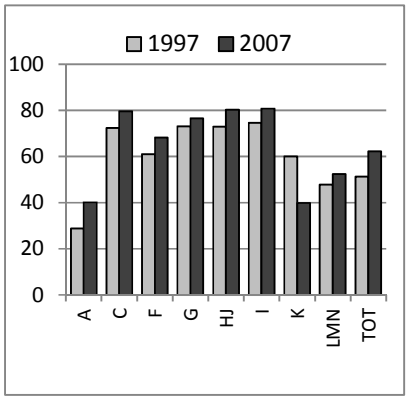
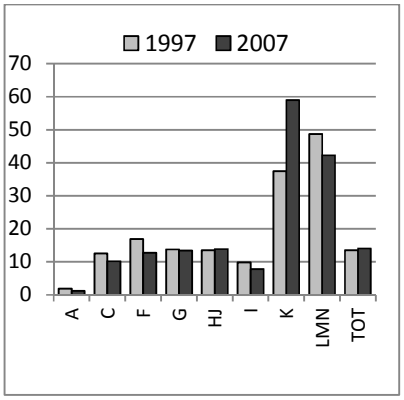


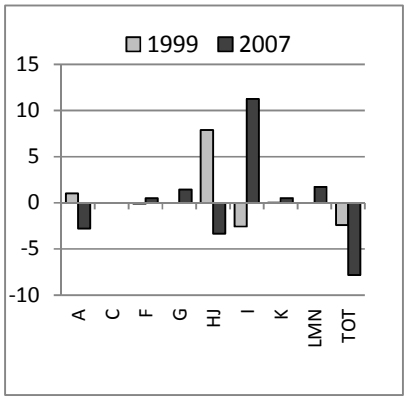
Figure 9: High educated, share in total employed, 1997, 2007, in %



Trade

Net trade in terms of gross output was negative both in 1999 and 2007 though declined from -2.5% to -8%. This decline was caused by a turnaround in agriculture (from +1 to -3%) and transportation, storage and communication (HJ) from 8% to -3.5%. In the other services sectors the ratios are positive in 2007. Trade in manufacturing is rather balanced.

Figure 10: Net trade, in % of gross output in sector



Country Fiche

Sweden (SE)

Value Added

Sweden was characterised by a strong increase in the value added share of real estate and business activities (LMN) which increased from 11% to 22% over the period 1975-2007. In the same period the share of manufacturing (C) declined from 24% to 20% and the share of agriculture (A) from 7% to 2%. Shares of construction (F) and wholesale and retail trade (G) remained roughly constant at around 5% and 11% respectively. The share of transportation, storage and communication slightly declined from 9% to 7% and for financial and insurance activities from 5 to 3.5%. Accommodation and food service activities account for only 2%. Total value added growth was at 2.25% with higher growth rates achieved in manufacturing (C) with 3.25%, wholesale and retail trade (G) with 2.75%, transportation, storage and communication with almost 3% and financial and insurance activities (K) with above 3%. Growth rates in agriculture (A), construction (F) and accommodation and food service activities (I) have been at 1% or less.

Figure 1: Share in Total Value Added

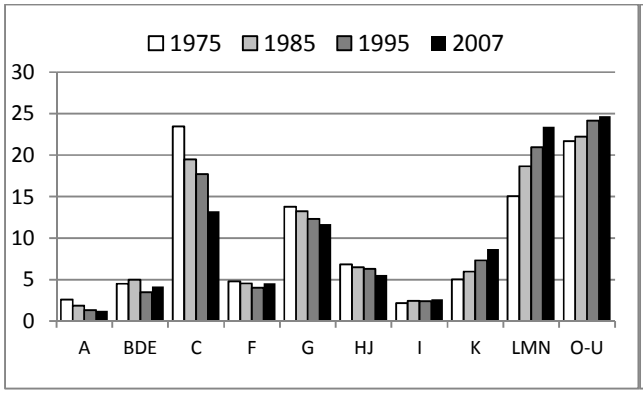
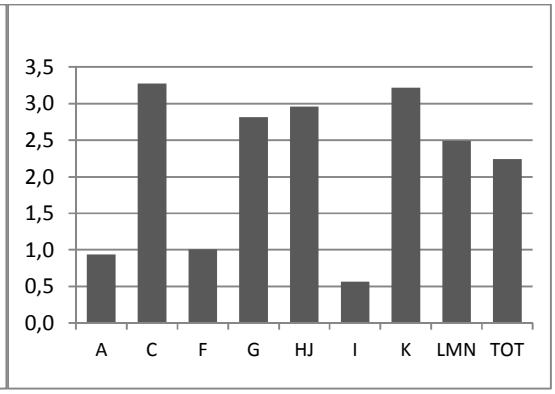


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

Productivity levels have been roughly at the EU-15 average for the total economy but have been higher in 2007 in most sectors except construction (F). In some cases like manufacturing (C) Sweden surpassed the EU-15 level but in some other cases (transportation, storage and communication (HJ), financial and insurance activities (K) and real estate and business activities (LMN)) it fall back to EU-15 level recently.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

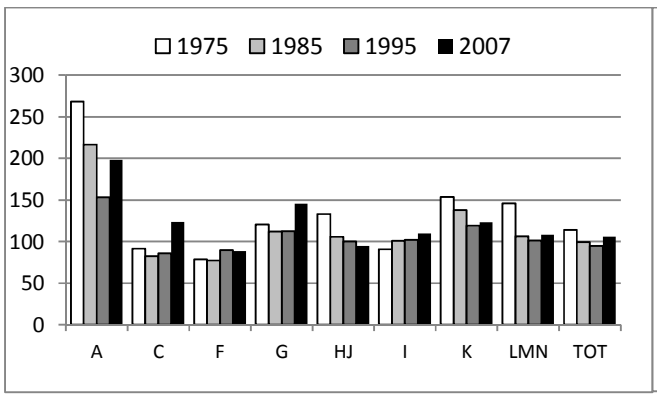
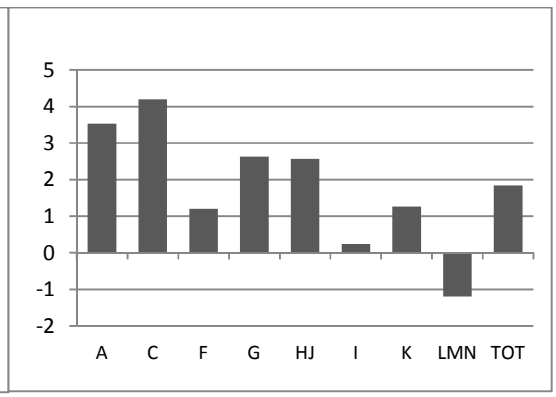


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

Changes in employment shares in manufacturing were more pronounced as compared to value added shares and dropped from 26% to 15% and little bit less pronounced in agriculture (A) with a decline from 6% to 2%. The share of real estate and business activities (LMN) increased from 4% to 13%. Shares in the other sectors have been roughly constant at around 5% (construction, F), 12% (wholesale and retail trade, G), 6% (transportation, storage and communication, HJ), 3% (accommodation and food service activities, I) and 2% (financial and insurance activities, K). Total employment growth was almost zero over the long period with strong declines in agriculture (A) at a rate of -3%, manufacturing (C) at a rate of -1.2%, and strong increases in financial and insurance activities (K) with almost 2% and real estate and business activities (LMN) with 4% growth rate.

Figure 5: Share in Total Employment

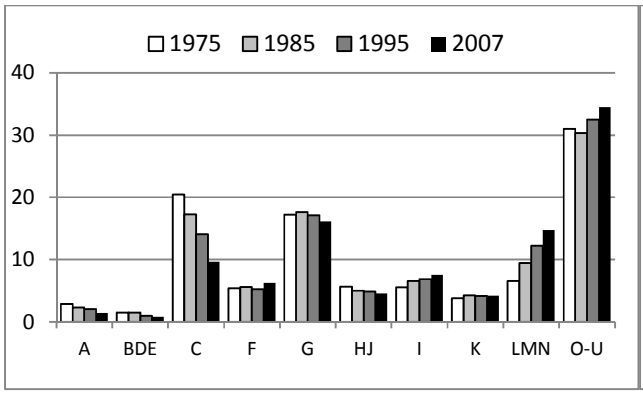
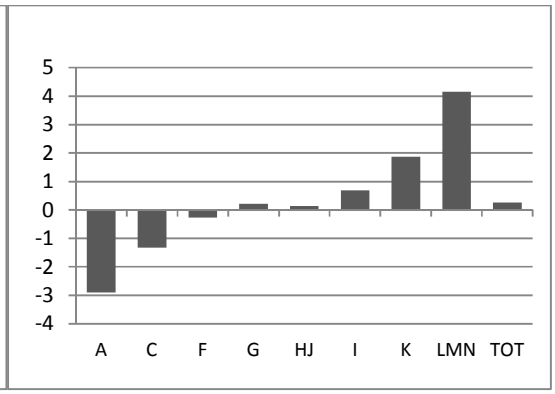


Figure 6: Employment, growth rates, annual average, 1975-2007

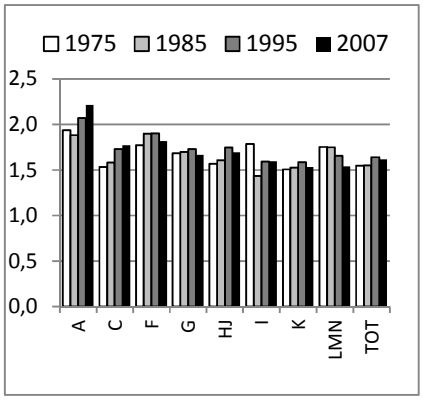


In absolute terms the number of persons employed increased from 4.2 mn to 4.5mn over the 30 years covered. Manufacturing (C) is the largest sector considered and accounts for more than 700 ths employed person, followed by real estate and business activities (LMN) with 589 ths and wholesale and retail trade with 567 ths. Average hours worked per person employed are with 1550 hours rather low but increased in a number of sectors like agriculture (A) to more than 2000, manufacturing (C), and transportation, storage and communication (HJ) over the longer period.

Table 1: Employment in sectors, 2007, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	257	1093	295	529	268	108	53	161	4160
1985	208	966	262	528	300	108	79	248	4456
1995	148	784	211	509	277	106	84	370	4129
2007	100	714	270	567	280	134	97	589	4518

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

The share of medium educated is at about 50% rather constant since 1997 though increased in a number of individual sectors like agriculture (A), manufacturing (C) and construction (F). The shares in the latter two are above average. The shares declined only in accommodation and food service activities (I) and financial and insurance activities (K). The share of high educated in 2007 was at 30% (showing a slight increase) and is well above this level in financial and insurance activities (K) and real estate and business activities (LMN) with about 40%. The shares in the remaining sectors are in between roughly 10% and 16% as in manufacturing (C).

The ICT shares in total capital stock increased in all sectors though not to a large extent and in total from 17% to more than 20%. The shares are particularly high in accommodation and food service activities (I) and financial and insurance activities (K).

Figure 8: Medium educated, share in total employed, 1997, 2007, in %

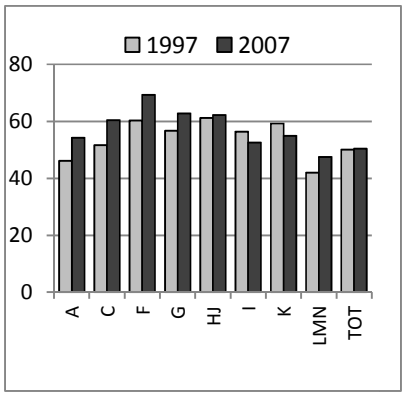


Figure 9: High educated, share in total employed, 1997, 2007, in %

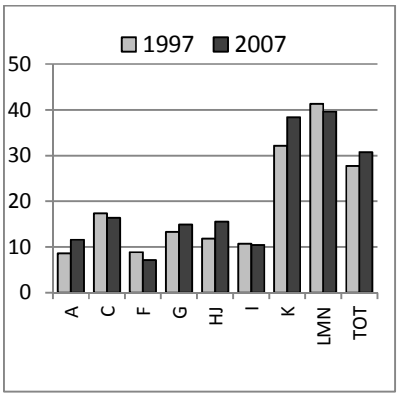
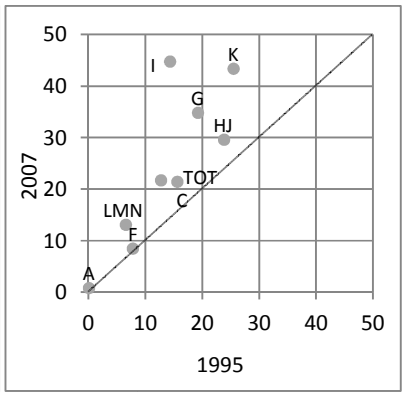


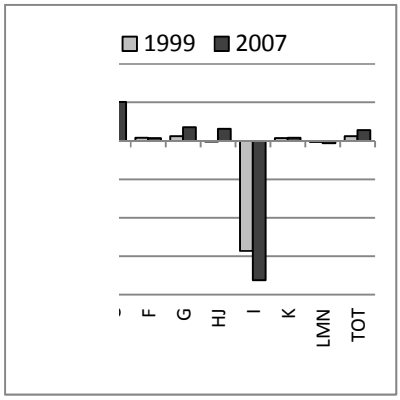
Figure 10: ICT capital stock, share in total capital stock in sector



Trade

Figure 11: Net trade, in % of gross output in sector

The trade balance was positive with about 2% of gross output in2007 which is particularly driven by a surplus in manufacturing with 10%. Net trade is strongly negative (in terms of gross output) in agriculture (A) with -20% and accommodation and food service activities (I) with -35%. In both cases the trade balance deteriorated. Net trade is also slightly positive in wholesale and retail trade (G) and transportation, storage and communication (HJ).



Country Fiche

Slovenia (SI)

Value Added

Structural change in Slovenia with respect to value added shares was rather modest with the common tendency of a decrease in the share of agriculture (A) from 4% to 2.5% and from manufacturing from 26% to 24%. The strongest increase in terms of sectoral shares occurred in real estate and business activities (LMN) from 14% to 17%. Also construction (F) slightly increased from 5% to 6% and transportation, storage and communication (HJ) from 7% to 8%. Accommodation and food service activities (I) and financial and insurance activities (K) remained rather stable at 2.5% and 5% respectively. In terms of growth rates which was at 4% for the total economy only agriculture (A) significantly with zero growth deviated from the overall growth rate.

Figure 1: Share in Total Value Added

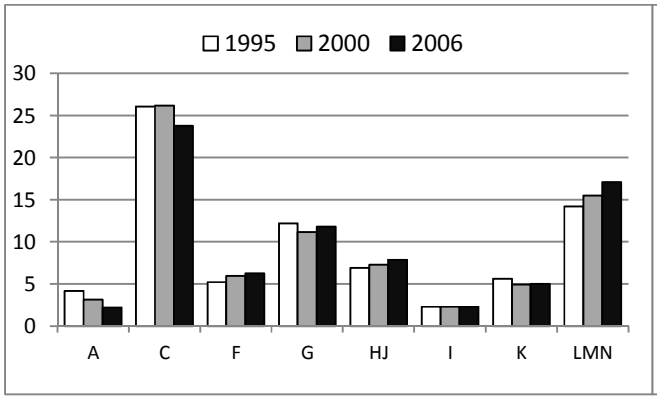
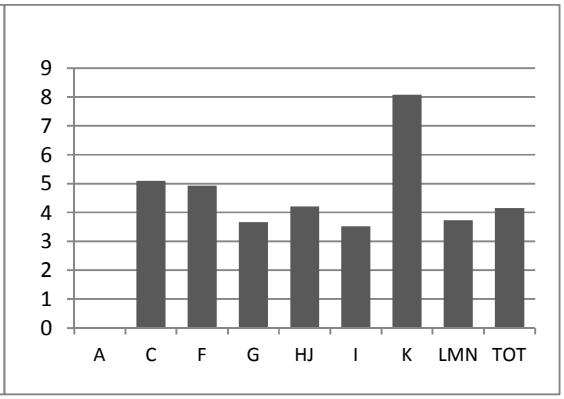


Figure 2: Value Added, real growth rates, annual average 1995-2006



Productivity

In terms of productivity compared to the EU-15 Slovenia started from about 50% in 1995 which increased to a level of almost 70% in 2006. The catching-up process was rather common across sectors with the exception of transportation, storage and communication (HJ) with remained at a rather constant level of 60%. Sectors wholesale and retail trade (G), accommodation and food service activities (I) and financial and insurance activities (K) almost reached the EU-15 levels in 2006.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

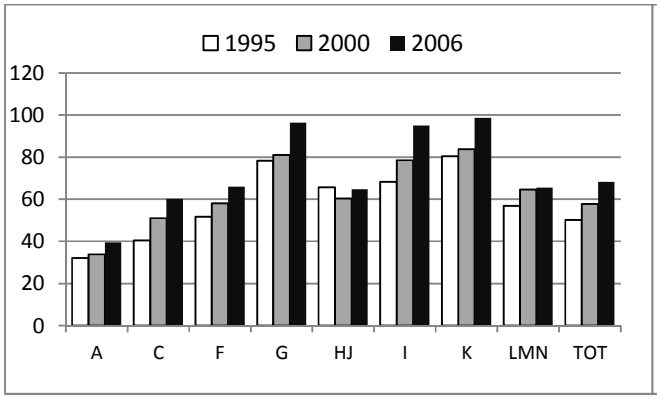
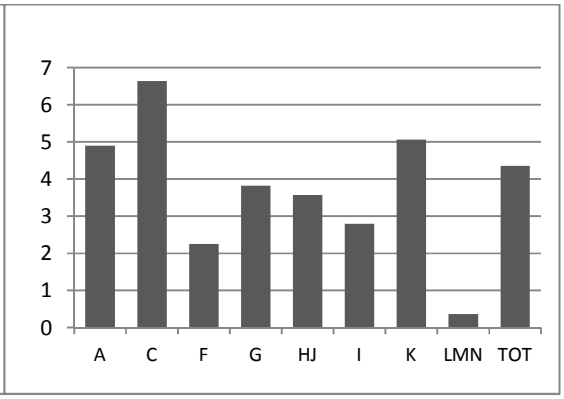


Figure 4: Productivity (VA per hour worked, growth, annual average 1995-2006



Employment

Sectoral employment shares show a stronger change as compared to value added shares with a decline from almost 15% to 10% in agriculture (A) and from 31% to 25% in manufacturing (C). An increase in shares is evident in construction (F) from 6 to 8% and real estate and business activities (LMN) from 6 to almost 10%. Shares in the other sectors remained roughly constant. Growth rates in agriculture (A) and manufacturing (C) has been negative with -3.5% and -1.5%, respectively. Strong positive growth rates of employment are observed in construction (F) with 2%, financial and insurance services (K) with 2.2% and real estate and business activities (LMN) with 3.5%. The overall employment growth rate has been at zero level however.

Figure 5: Share in Total Employment

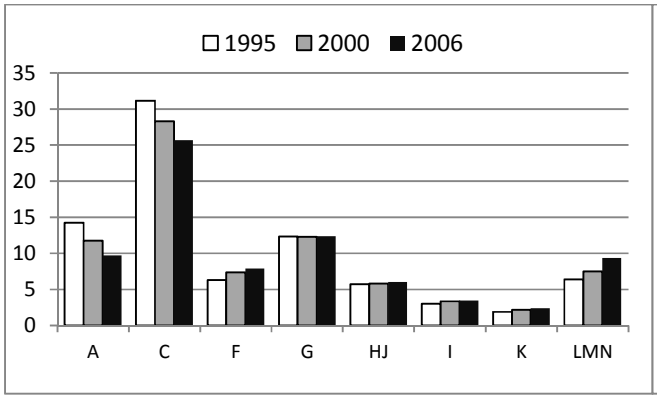
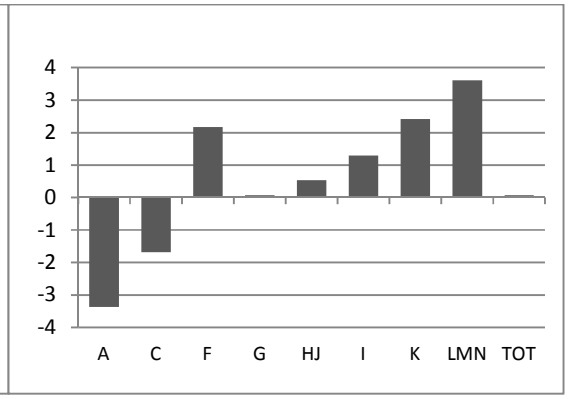


Figure 6: Employment, growth rates, annual average, 1995-2006

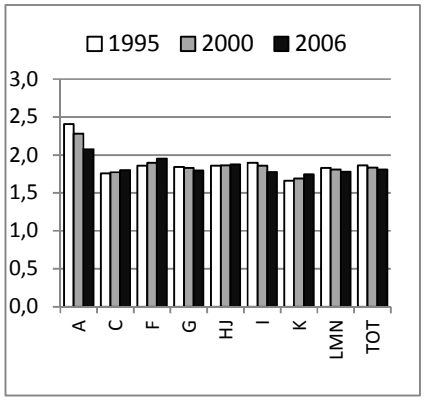


In terms of absolute employment levels this implies that from 1995 to 2006 employment was increasing from 912 ths to 919 ths with a small dip in the period between. The largest sector, manufacturing (C), accounts for almost 240 ths employed persons in 2006. Accommodation and food service activities (I) and financial and insurance activities (K) – smallest sectors – account for 32 ths and 22 ths respectively. Hours worked per employed person slightly declined to about 1800 hours, with a strong decline in agriculture (A) and accommodation and foods service activities (I) but increases in manufacturing (C), construction (F), and financial and insurance activities (K).

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1995	130	284	57	113	52	28	17	58	912
2000	107	256	67	111	53	30	20	68	905
2006	89	236	73	114	55	32	22	86	919

Figure 7: Annual hours worked per employed, in thousand



Skill formation

The share of medium educated workers was relatively constant at about 60%. This increased however in agriculture from a low level of slightly above 30% to about 45% and declined significantly in financial and insurance activities (K) and real estate and business activities (LMN) from about 70% to 55% and almost 60% to 50%, respectively. The shares also decreased in the other services sectors also to a lower extent whereas increased in manufacturing (C). The share of high educated workers was strongly increasing from 15% to almost 25% from 1995 to 2006 in total but also in all individual sectors, particularly strongly in financial and insurance activities (K), real estate and business activities (LMN), wholesale and retail trade (G) and transportation, storage and communication (HJ). However, the share of high educated in all sectors financial and insurance activities (K) and real estate and business activities (LMN) with more than 40% is well above the shares in the other sectors.

Figure 8: Medium educated, share in total employed, 1995, 2006, in %

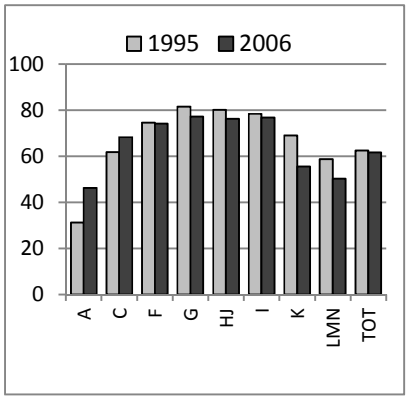
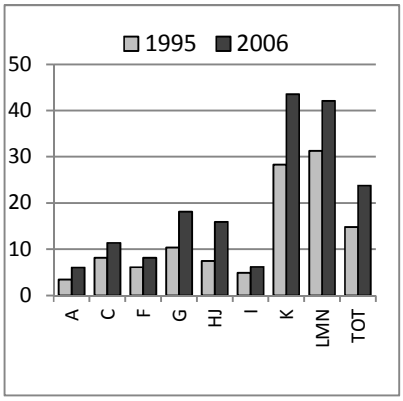


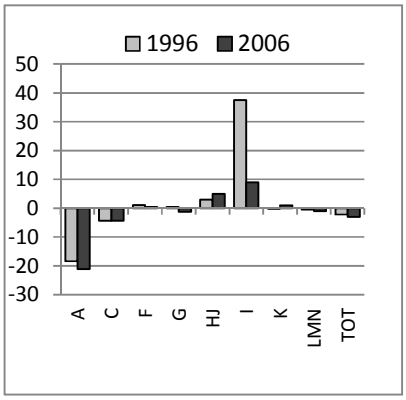
Figure 9: High educated, share in total employed, 1995, 2006, in %



Trade

Net trade was grossly balanced with a slight deficit of about 2% in terms of gross output. The deficit in relative terms was particularly strong in agriculture (A) with -20% and less so in manufacturing with -4%. The largest positive ratio is found in accommodation and food service activities with 10%.

Figure 10: Net trade, in % of gross output in sector



Country Fiche

Slovak Republic (SK)

Value Added

Value added shares in the Slovak Republic increased particularly in construction (F) from 5 to 8% and in wholesale and retail trade from 13 to 16%. After a decline from 27% in 1995 to slightly less than 25% the share of manufacturing remained constant whereas the share of agriculture declined from 6% to 4% and in transportation, storage and communication (HJ) from 10 to 8%. The share of real estate and business activities increased from 12% in 1995 to 15% in 2000 and then again to 18% in 2007. The share of financial and insurance activities declined from slightly above 5% to 4% with an even lower share in 2000 whereas the share of accommodation and food service activities remained constant at 2%. Overall growth rate of value added was at 4% over the whole period. Transportation, storage and communication (HJ) and financial and insurance activities (K) strongly declined by -7% and -6% respectively. Growth rates have been rather high in manufacturing (C) and wholesale and retail trade (G) with 8% and construction (F) with 6%.

Figure 1: Share in Total Value Added

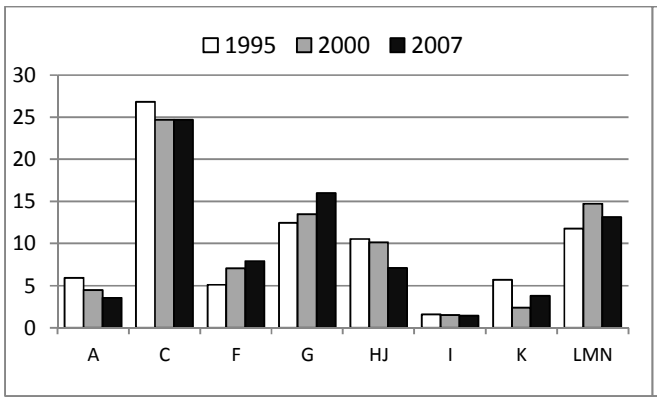
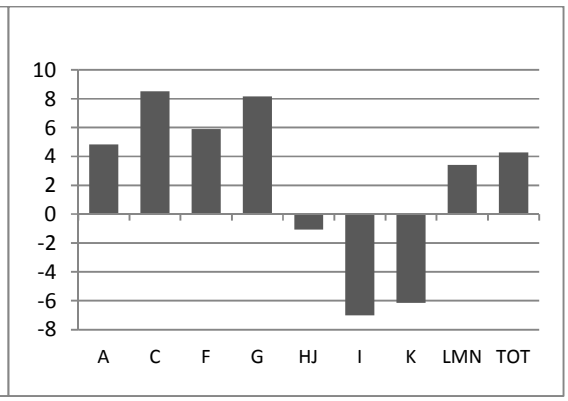


Figure 2: Value Added, real growth rates, annual average 1995-2007



Productivity

The Slovak Republic reached a productivity level of almost 50% of the EU-15 in 2007 starting from a position of about 30% in 1995. Particularly strong catching-up took place in manufacturing (C) and agriculture (A) especially between 2000 and 2007 but also in construction (F). Transportation, storage and communication (HJ) and accommodation and food service activities declined in relative productivity.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

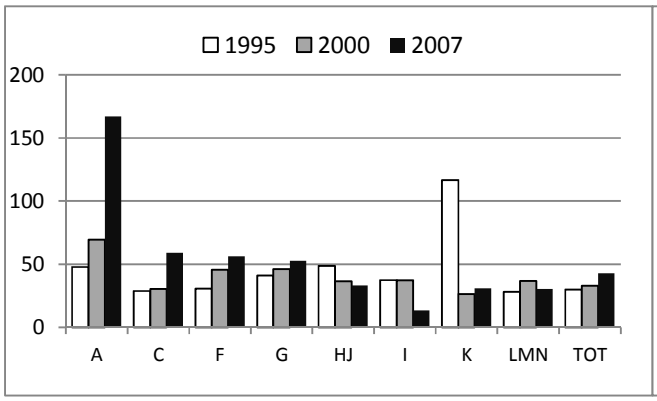
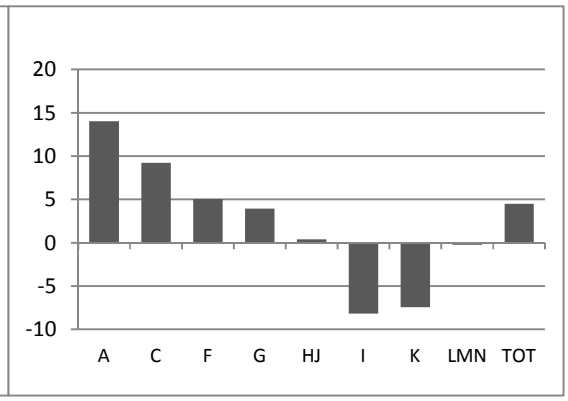


Figure 4: Productivity (VA per hour worked, growth, annual average 1995-2007



Employment

Employment shares strongly increased in wholesale and retail trade (G) from 11% to 18% and less spectacularly from 5 to 8% in real estate and business activities (LMN). The strongest decline took place in agriculture (A) from 95 to 3% and manufacturing (C) from 27% to 24%. The share in construction (F) was increasing only slightly from 7% to 8% and the one in transportation, storage and communication slightly dropped from 7.5% to 6.5%. The shares of accommodation and food service activities with about 3% and financial and insurance activities with about 2.5% have been rather stagnant. Employment growth was only marginally positive in the total economy. However it was quite strong in wholesale and retail trade (G) with almost 5% and real estate and business activities (LMN) with 4% and less so in financial and insurance activities with 1%. It was negative in agriculture with -75 and manufacturing (C) and transportation, storage and communication with -0.5 and -1% respectively.

Figure 5: Share in Total Employment

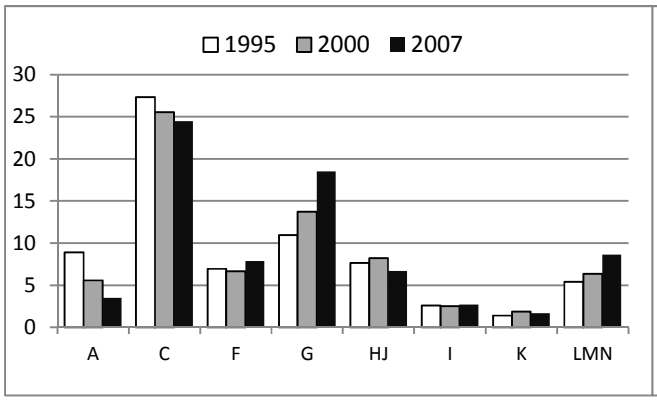
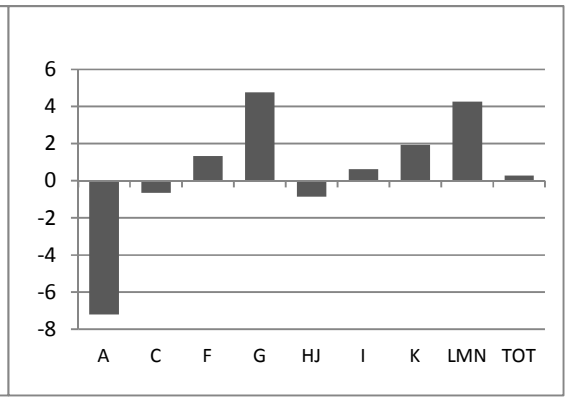


Figure 6: Employment, growth rates, annual average, 1995-2007

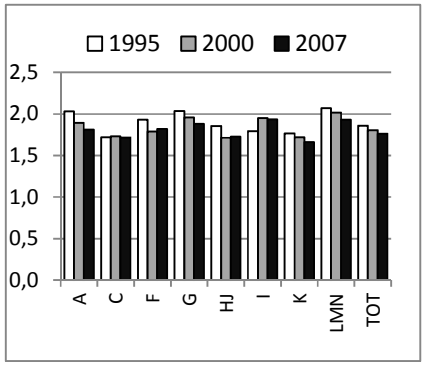


In absolute terms employment increased from 2.1 mn to almost 2.2 mn from 1995 to 2007. The largest sectors manufacturing (C) and wholesale and retail trade (G) take account of 533 ths and 403 ths. Agriculture (A) and financial and insurance activities (K) are the smallest 77 ths and 37 ths employed persons. Concerning hours worked per person employed there was a general decline from about 1850 hours to 1750 hours. Declines can be seen in all sector with the exception of manufacturing (C) where these remained rather constant and where the number of hours worked were already relatively small compared to the other sectors and accommodation and food service activities where average hours worked increased. In some sectors these numbers came down from average hours worked above 2000 hours (agriculture, wholesale and retail trade and real estate and business activities).

Table 1: Employment in sectors, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1995	188	576	146	231	161	54	29	114	2107
2000	113	517	135	278	166	51	38	128	2025
2007	77	533	171	403	145	58	37	188	2177

Figure 7: Annual hours worked per employed, in thousand



Skill formation

The share of medium educated workers is roughly constant at 80% (with a slight increase since 1998 only). These shares of medium educated workers increased in all sectors and particularly so in agriculture (A) from 70 to 80% with the exceptions of financial and insurance activities (K) and real estate and business activities reporting declines from about 65% to about 60%. In these sectors however the share of high educated workers increased from 30% to 41% and 32% to 38% respectively. The increasing share of high educated was a common tendency across sectors. In the total economy this share increased from 12 to 17%.

Figure 8: Medium educated, share in total employed, 1998, 2007, in %

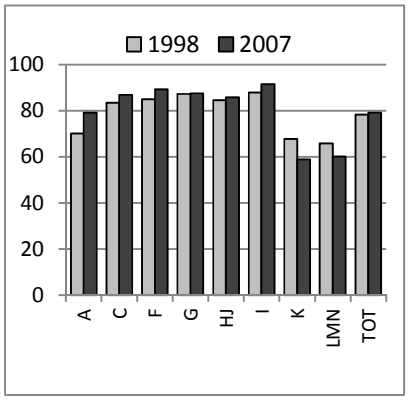
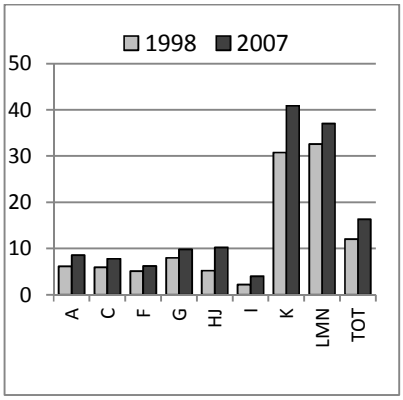
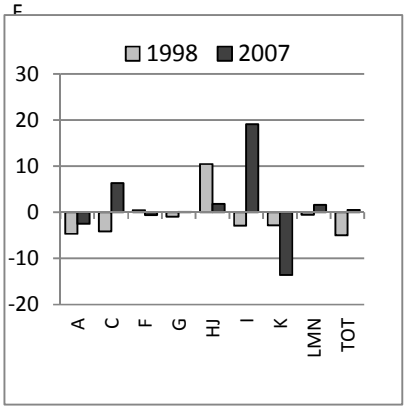


Figure 9: High educated, share in total employed, 1998, 2007, in %



Trade



trade,
in % of gross output in sector

Overall net trade increased from -6% in terms of gross output in 1998 to a slight surplus in 2000. This as largely driven by the manufacturing sector (C) becoming a net exporter in 2007 with 7.5%. A large change into positive also took place in accommodation and food service activities. Trade in

agriculturewas in deficit throughout thoug this somewhat improved. Net trade in terms of gross output declined from 10% to 2% in transportation, storage and communication and from -3% to -13% in financian and insurance activities.

Country Fiche

United Kingdom (UK)

Value Added

Figure 1 shows sectoral shares in total value added and points at improvements in three sectors only: real estate and business activities (LMN) which improved the most from 9% in 1995 to 22% in 2007, followed by financial and insurance activities (K) and accommodation and food service activities (I). The share in total value added dropped the most in manufacturing (from 29% in 1995 to 12% in 2007). All other sectors maintained fairly stable value added shares. With respect to real value added growth rates, only real estate and business activities (LMN), transportation and storage (HJ), real estate and business activities (LMN) and wholesale and retail trade (G) had above average value added growth rates.

Figure 1: Share in Total Value Added

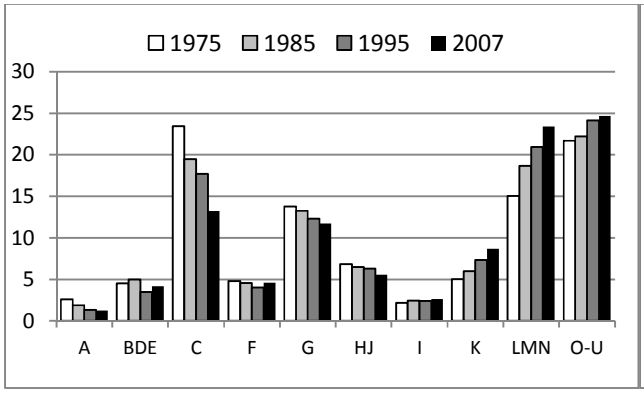
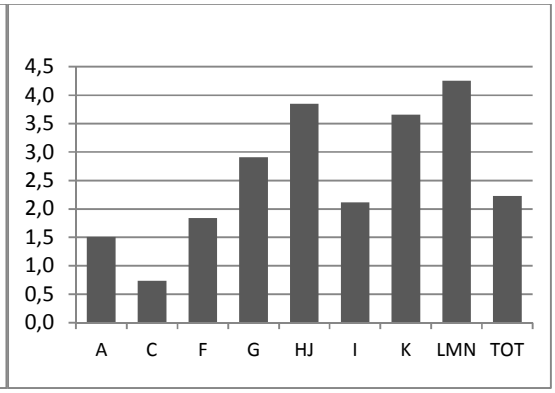


Figure 2: Value Added, real growth rates, annual average 1975-2007



Productivity

At the level of the total economy, the productivity level of the UK remained consistently below the EU15 level. At the sectoral level, manufacturing (C), construction (F), transportation and storage (HJ) and real estate and business activities (LMN) all managed to catch up with the EU15 level but only wholesale and retail trade (G) forged ahead of the EU15 level. Accommodation and food service activities (I) improved even further. Agriculture's (A) productivity level deteriorated the most but still remained above the EU15 level.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

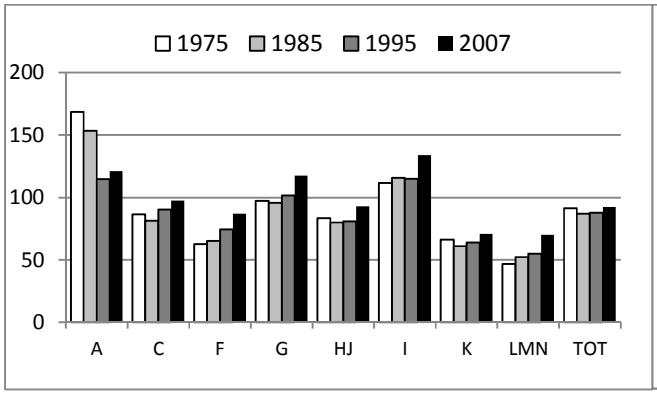
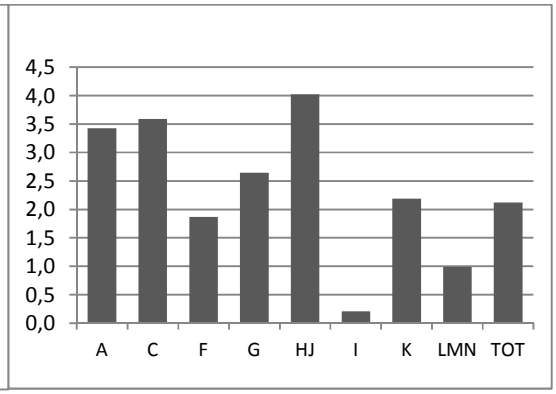


Figure 4: Productivity (VA per hour worked, growth, annual average 1975-2007



Employment

The share in total employment fell the most in manufacturing (C) and halved from 28% in 1975 to around 11% in 2007. In contrast, it increased the most in real estate and business activities (LMN) and more than doubled from 7% in 1975 to 17% in 2007. In 2007, with around 17%, both wholesale and retail trade (G) and real estate and business activities (LMN) held the highest shares in total employment. These developments are reflected in annual employment growth rates which fell strongly in agriculture (A) and manufacturing (C) but increased the most in real estate and business activities (LMN).

Figure 5: Share in Total Employment

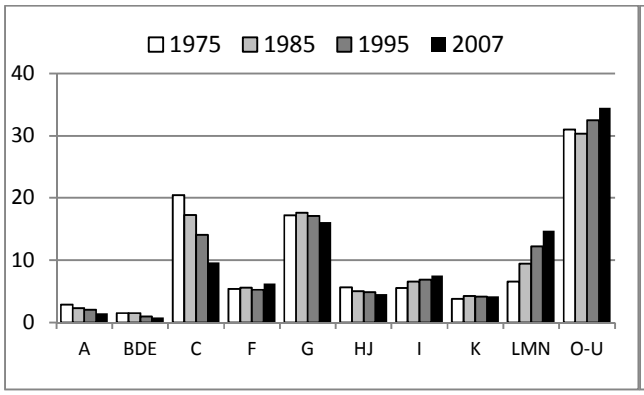
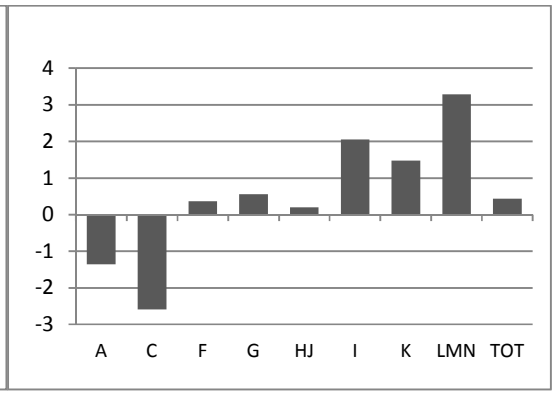


Figure 6: Employment, growth rates, annual average, 1975-2007



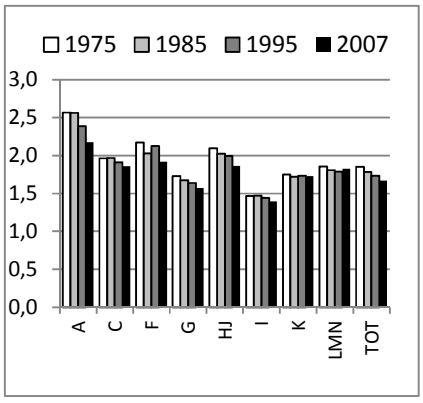
In absolute terms, employment increased the most in real estate and business activities (LMN) (from 1.8 mn persons in 1975 to 5 mn persons in 2007) and accommodation and food service activities (I) (from 0.9 mn persons in 1975 to 1.8 mn persons in 2007) and fell the most in manufacturing (C) (from 7.3 mn persons in 1975 to only 3.1 mn persons in 2007).

Between 1975 and 2007, hours worked per employee consistently fell throughout all sectors considered, but fell the most in agriculture (A) but the least in financial and insurance activities (K) and real estate and business activities (LMN). In 2007, annual hours worked per employee were about 1600.

Table 1: Employment in sectors, 2007, in thousand

year	A	C	F	G	HJ	I	K	LMN	TOT
1975	640	7305	1908	4184	1639	953	723	1782	26057
1985	597	5247	1815	4425	1515	1079	910	2340	25016
1995	516	4296	1734	4566	1507	1409	1010	3358	26054
2007	413	3158	2143	4999	1749	1827	1158	5014	29900

Figure 7: Annual hours worked per employed, in thousand



Skill formation and ICT capital

Without exception, the share of medium educated workers in total employed increased in all sectors considered: it increased the most in wholesale and retail trade (G), transportation and storage (HJ) and accommodation and food service activities (I) but increased the least in real estate and business activities (LMN). In 2007, except for agriculture (A), all sectors had above average shares of medium educated workers. Similarly, without exception, all sectors improved their shares of high educated workers in total employed. In 2007, only real estate and business activities (LMN) and financial and insurance activities (K) had above average high educated shares in total employed.

Except for agriculture (A), all sectors experienced improvements in the shares of their ICT capital stock in total capital stock which, between 1995 and 2007, more than doubled.

Figure 8: Medium educated, share in total employed, 1995, 2007, in %

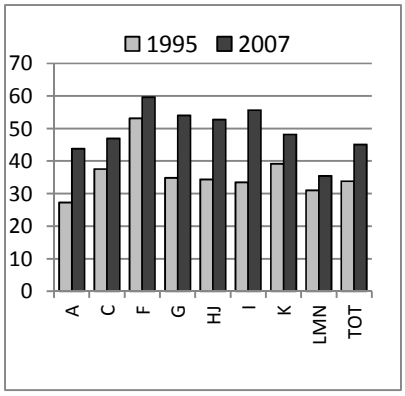


Figure 9: High educated, share in total employed, 1995, 2007, in %

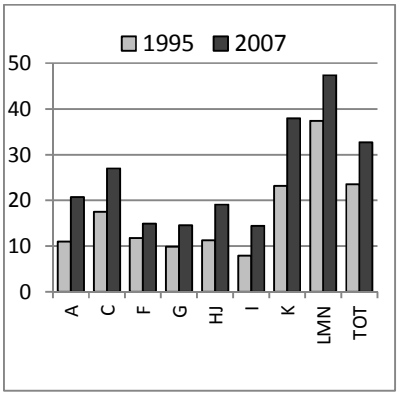
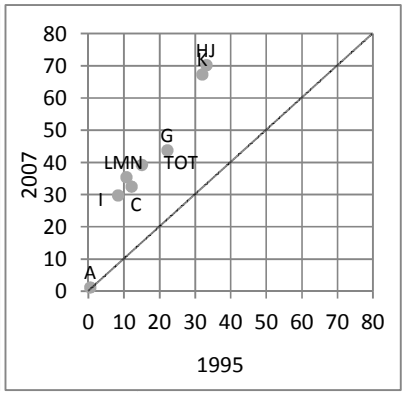


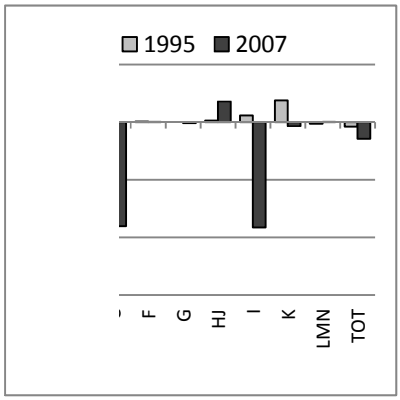
Figure 10: ICT capital stock, share in total capital stock in sector



Trade

In both, 1995 and 2007, the UK ran a trade deficit which deteriorated further between 1995 and 2007. And while between 1995 and 2007, agriculture (A) and manufacturing (C) both expanded their trade deficits even further, accommodation and food service activities (I) and financial and insurance activities (K) both shifted from being net exporters to being net importers. Only transportation and storage (HJ) managed to strengthen its position as net exporter.

Figure 11: Net trade, in % of gross output in sector



Country Fiche

United States (US)

Value Added

The share of value added in total value added improved only in financial and insurance activities (K), from 5% in 1977 to 8% in 2007 and in real estate and business activities (LMN), from 15% in 1977 to 23% in 2007 (Figure 1). It decreased the most in manufacturing (C), from 23% in 1977 to 13% in 2007 but also in agriculture (A), wholesale and retail trade (G) and transportation and storage (HJ) but remained fairly stable in all other sectors. Real value added growth rates were positive in all sectors considered and above country average in all sectors except for manufacturing (C), construction (F) and accommodation and food service activities (I).

Figure 1: Share in Total Value Added

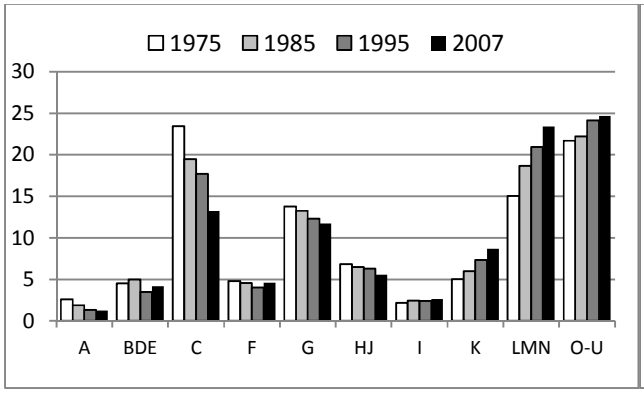
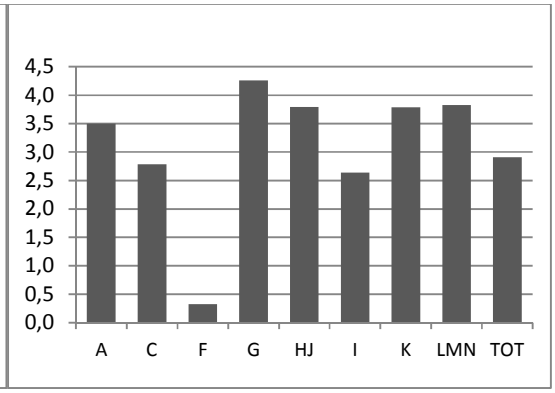


Figure 2: Value Added, real growth rates, annual average 1977-2007



Productivity

Between 1977 and 2007, the overall productivity level of the US economy stayed consistently above the EU15 productivity level, it lost some ground, however. Only construction (F) lost relative to the EU15 level. All other sectors stayed above the EU15 level or moved beyond it. Agriculture (A) was more than twice as productive as the EU15, but lost over time and, in 2007, was less than twice as productive. And accommodation and food service activities (I) caught up with the EU15 level in 1985 and moved ahead thereafter.

Figure 3: Productivity (VA per hour worked), levels, EU15=100

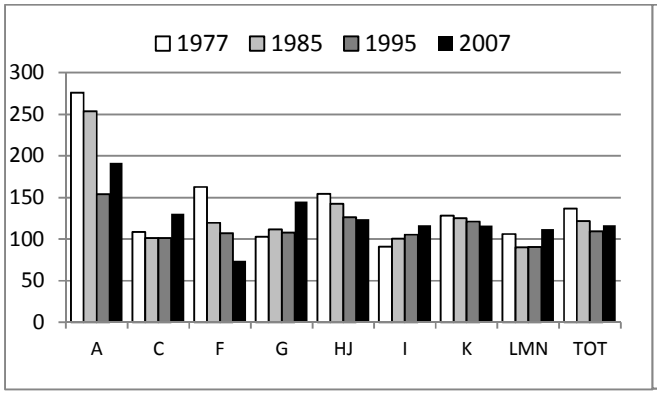
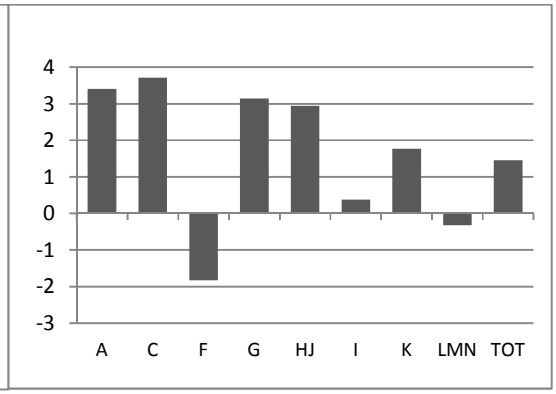


Figure 4: Productivity (VA per hour worked, growth, annual average 1977-2007



Employment

The share in total employment dropped only in manufacturing (C) (from around 21% in 1977 to 9% in 2007) and in agriculture (A) (from 3% in 1977 to 2% in 2007). In contrast, the share in total employment increased in accommodation and food service activities (I) and most significantly in real estate and business activities (LMN), from 6% in 1977 to around 15% in 2007. It remained fairly stable in all other sectors. This is also reflected in annual employment growth rates which were negative for agriculture (A) and manufacturing (C) and above country average in construction (F), accommodation and food service activities (I), financial and insurance activities (K) and real estate and business activities (LMN).

Figure 5: Share in Total Employment

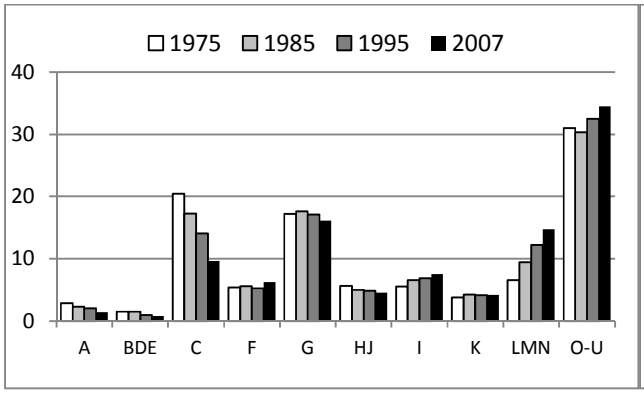
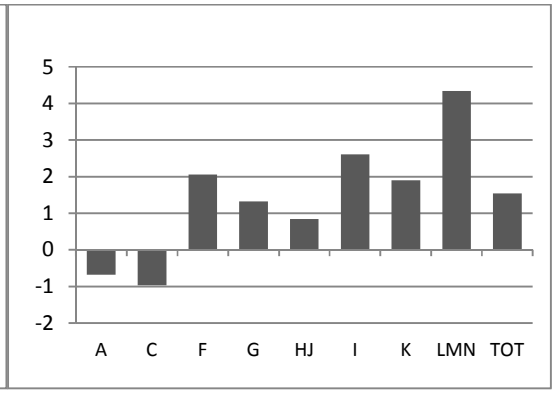


Figure 6: Employment, growth rates, annual average, 1977-2007



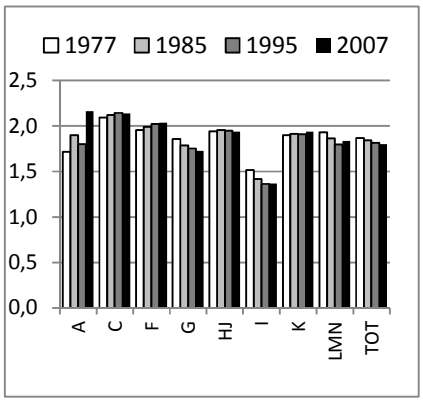
In absolute terms, employment decreased in agriculture (A) (from 2.8 mn persons in 1977 to 2.3 mn in 2007) and in manufacturing (C) only (from 20.1 mn persons in 1977 to 15 mn persons in 2007). It increased the most in real estate and business activities (LMN), from 6.4 mn persons in 1977 to 16.5 mn persons in 2007).

Between 1977 and 2007, hours worked decreased in wholesale and retail trade (G), accommodation and food service activities (I) and real estate and business activities (LMN) only. In 2007, hours worked was lowest in accommodation and food service activities (I). In contrast, hours worked increased steadily in manufacturing (C), construction (F) but increased most significantly in agriculture (A) to over 2000 in 2007.

Table 1: Employment in sectors, 2007, in thousand

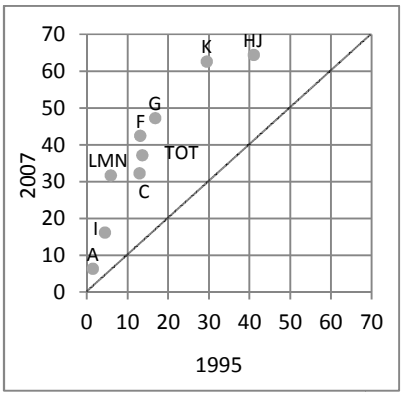
year	A	C	F	G	HJ	I	K	LMN	TOT
1977	2816	20116	5292	16900	5551	5451	3723	6430	98202
1985	2638	19915	6477	20323	5800	7536	4907	10927	115201
1995	2769	19052	7099	23132	6544	9291	5613	16527	135297
2007	2294	15040	9741	25081	7131	11797	6561	22994	155502

Figure 7: Annual hours worked per employed, in thousand



ICT capital

Figure 8: ICT capital stock, share in total capital stock in sector

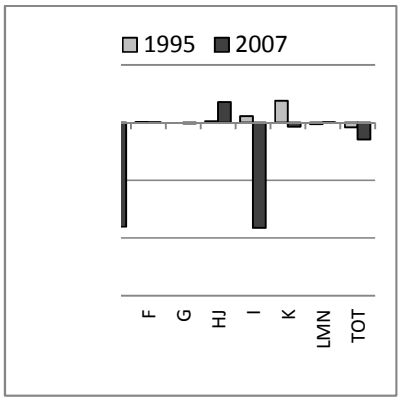


All sectors experienced improvements in the shares of their ICT capital stock in total capital stock (Figure 8). The overall country level ICT capital stock in total more than doubled between 1995 and 2007. At the sectoral level, the ICT capital stock in total soared in agriculture (A) and accommodation and food service activities (I), both starting at relatively low levels in 1995. Moreover, it more than doubled in financial and insurance activities (K), more than tripled in real estate and business activities (LMN) and manufacturing (C) and more than quadrupled in construction (F) and in wholesale and retail trade (G).

Trade

Figure 9: Net trade, in % of gross output in sector

In both 1995 and 2007, the US ran a trade deficit. At the sectoral level, both agriculture (A) and manufacturing (C) strengthened their positions as net importer while accommodation and food service activities (I) and financial and insurance activities (K) both moved from being net exporters in 1995 to being net importers in 2007. In contrast, transportation and storage (HJ) strengthened its position as net exporter.



Sources for Fiches:

Synthetic fiches:

EU KLEMS database, November 2009, www.euklems.net

Sector fiches:

Value added (Figure 1, Figure 2, Figure 3), Productivity (Figure 4, Figure 5), Employment (Figure 6, Figure 7, Figure 8): EU KLEMS database, November 2009, www.euklems.net, except for NO, IS, CH: OECD STAN database and MK, BG, RO, TR: Eurostat National accounts data

Skill formation (Figure 9, Figure 10): Eurostat Labour Force Survey data

ICT capital (Figure 11): EU KLEMS database, November 2009, www.euklems.net

Trade (Figure 12): UN Comtrade database and EU KLEMS database, November 2009, www.euklems.net

Country fiches:

Value added (share in total value added, real growth rates), Productivity (levels, growth rates), Employment (share in total employment, growth rates, figures, hours worked per employed): EU KLEMS database, November 2009, www.euklems.net, except for NO, IS, CH: OECD STAN database and MK, BG, RO, TR: Eurostat National accounts data

Skill formation (medium educated, high educated): Eurostat Labour Force Survey data

ICT capital (in total capital stock): EU KLEMS database, November 2009, www.euklems.net

Trade (net trade in % of gross output): Trade: UN Comtrade database; Output: EU KLEMS database, November 2009, www.euklems.net, except for NO, IS, CH: OECD STAN database and MK, BG, RO, TR: Eurostat National accounts data

Acronyms for Fiches:

av.	Average
ICT	Information and communication technology
p.a.	per annum
VA	Value added

Country codes

AT	Austria	HR	Croatia	PL	Poland
BE	Belgium	HU	Hungary	PT	Portugal
BG	Bulgaria	IE	Ireland	RO	Romania
CY	Cyprus	IS	Iceland	RS	Serbia
CZ	Czech Republic	IT	Italy	SK	Slovak Republic
DE	Germany	JP	Japan	SI	Slovenia
DK	Denmark	LT	Lithuania	SE	Sweden
ES	Spain	LU	Luxembourg	TR	Turkey
EE	Estonia	LV	Latvia	US	USA
FI	Finland	MK	Former Yugoslav Republic of Macedonia		
FR	France	MT	Malta		
UK	Great Britain	NL	Netherlands		
EL	Greece	NO	Norway		

EU15: AT, BE, DE, DK, ES, EL, FI, FR, IE, IT, LU, NL, PT, SE, UK
EU10: CY, CZ, EE, HU, LT, LV, MT, PL, SK, SI
EU25: EU15, EU10

Sector codes

A	Agriculture, forestry and fishing
C	Manufacturing
CB	Manufacture of textiles, wearing apparel, leather and related products
CE-CF	Manufacture of chemicals and chemical products; basic pharmaceutical products and pharmaceutical preparations
CG	Manufacture of rubber and plastic products; other non-metallic mineral products
CH	Manufacture of basic metals; fabricated metal products, except machinery and equipment
CI-CJ	Manufacture of computer, electronic and optical products; electrical equipment
CK	Manufacture of machinery and equipment not elsewhere classified
C29	Manufacture of motor vehicles, trailers and semi-trailers
F	Construction
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
HJ	Transportation and storage; Information and communication
I	Accommodation and food service activities
K	Financial and insurance activities
LMN	Real estate activities; Professional, scientific and technical activities; Administrative and support service activities
TOT	Total economy