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Developments and perspectives in the metal industry of Serbia

The macroeconomic framework for Serbia's industrial development

In the past decade, 2001-2011, Serbia had significant economic growth up until 2008 and a very impressive inflow of foreign direct investment and credit. Subsequent to 2008, however, due to the global crisis, and not the competitive structure of the domestic economy, Serbia was faced with a problem of falling exports, non-trading of goods and a lack of liquidity.

The largest negative effects of the crisis have been caused to industry (a decrease of 12.1 %), especially manufacturing (a decrease of 15.8 %) where the growth between 2001 and 2008 has been completely wiped out, trade (12.3 %) and construction (25.1 %). These adverse effects have led to crisis in the Serbian economy in conditions of high domestic demand and a high current account deficit. The result of the significant reduction in foreign capital inflows, the slowdown in lending activity and the major decline in wage growth was a decrease in domestic demand (8.4 %). This drastic drop in demand, with an impact that was felt both in personal consumption and in production activities, has influenced a reduction in foreign trade, especially in imports (down 28 %, while the export of goods is down 20 %), resulting in an improved balance of payments in the current account. The deficit of €7.0bn in 2008 decreased to €2.1bn in 2009 (from 21.2 % of GDP to 6.9 %). In the second half of 2009 and in 2010, however, economic activity in Serbia has stabilised under the influence of a number of incentives.

Serbia has achieved an average GDP growth rate of 4.4 % over the past ten years. Abstracting the negative impact of the global economic crisis, the GDP growth rate has been relatively high (5.4 % in 2001-2008.) However, this does not fully reflect the state of economic activities in Serbia: the extremely low base in the years preceding the transition period can mean that GDP growth appears over-large.

Table 1 – GDP of Serbia, 2002-2010 (€m)

2002	2003	2004	2005	2006	2007	2008	2009	2010
16 028	17 306	19 026	20 306	23 305	28 468	21 668	28 883	28 815

Source: Serbian Statistical Office, 2011

In the current growth rate of GDP, the biggest contribution has been made by the service sector, with an average gross value added (GVA) growth rate of 6 % per year (the most prominent sub-sectors – trade, and transport and communications – have achieved average annual growth rates of 11.1 % and 14.9 %, respectively). On the other hand, there has been a pronounced trend towards de-industrialisation and even an agrarianisation of the economy in Serbia, primarily as a result of an inadequate invest-

ment structure, partly unsuccessful privatisation and the expansion of the service sector. Consequently, between 2001 and 2009, the average growth rate of agriculture and industry amounted to 2.1 % and -0.5 %, respectively. During the same period, the construction recorded growth of -0.1 %. Table 2 sums the main trends in the Serbian economy from 2002 to 2008.

Table 2 – Basic macroeconomic indicators, 2002-2008

	Growth (%)	Industrial growth (%)	Inflation (%)	Exports ($m)	Imports ($m)	Nominal wage increase (%)
2002	4.5	1.8	19.5	2 075	5 614	29.9
2003	2.5	-3.0	11.7	2 755	7 473	13.6
2004	8.4	7.1	13.1	3 701	11 139	10.1
2005	6.0	0.8	17.7	4 553	10 570	6.4
2006	5.6	4.7	6.6	6 428	13 172	11.4
2007	7.1	3.7	10.1	8 825	18 350	19.5
2008	6.1	1.1	6.8	10 972	22 999	3.9

Source: Serbian Statistical Office, 2011.

Serbia has still not recovered its 1989 level of GDP per capita and, when viewed in terms of purchasing power parity, Serbia has a GDP per capita below that of Albania. GDP has made a rapid turnaround in Serbia from the catastrophic years of the early 1990s – when in both 1992 and 1993, Serbia's GDP decreased by over 25 %. After the changes of 2000, however, annualised average GDP growth has been 5.3 %, dipping to 2.4 % only in 2003 – presumably a reaction to the assassination of Prime Minister Đinđić in March of that year – and rising to over six per cent since 2004. In 2007, GDP increased by no less than 7.0 %. Overall, output has increased by 40 per cent. However, fixed investment has stagnated and the growth of manufacturing has been far lower than the growth of GDP, even falling in some years as Serbia moves in the direction of a service economy. Growth in this period has been driven largely by strong domestic demand, although high public spending has also played a worryingly large role.

Growth has been almost entirely concentrated in the services sector, which has blossomed at the expense of heavy industry. The agricultural sector has largely remained steady. There is concern, however, about the realistic prospects for continued, strong, long-term growth, particularly given the low domestic savings rate, the joint product of years of want and built-up mistrust in a previously inefficient and unaccountable banking system. The net result has been a low domestic level of investment which – combined with the still-limited availability of foreign financing – is insufficient to sustain continued growth at the rapid pace of the previous seven years.

High public spending remains a problem for the long-term health of the Serbian economy. In the early years of transition, from 2000 to 2003, public expenditure as a share of GDP increased from 36.5 % to 47 %. Much of this increase, however, was the result of bringing into the books those activities that had previously been conducted in the grey sector: thus, this development is – for that fact – relatively positive. Furthermore, the Serbian government has, since 2004, recorded budget surpluses and has taken steps toward repaying the country's still significant external debt.

Sectoral structure

The period since 2001 has seen a change in the sectoral structure of Serbia's GDP in favour of services, and to the detriment of industry. Examining the sectoral composition of the formation of GVA in the Serbian economy since 2001, we can see a greater participation of the service sector (standing at 62.3 %) than the tradable goods sector (37.7 %). Influenced by the global economic crisis, the manufacturing and construction sectors have recorded the most significant decline in the share of GVA across the economy, while transport and communications, as well as real estate operations, achieved the highest growth rates. The tradable goods sector shows a very low growth of just 0.4 % in the transitional period, indicating that almost the entire growth in GVA in the economy has been generated by the services sector.

In 2010, Serbia's economy has begun recovering from the impact of the global economic crisis, with an estimated growth in GDP of around 1.5 % in 2010, with no significant change in sectoral structure. The industry sector which recorded the largest drop in value added in 2008 and 2009 (in absolute terms) is a sector that, in 2010, resulted in the highest rate of recovery, while the services sector retains an almost identical growth rate as in 2009. According to the Statistical Office, the 2011 Q1 real GDP growth rate was 3.4 %, based on the trends in economic activity indicators; it was further estimated that Q2 would, however, show a slowdown in GDP growth of c. 2 % as a result of weaker performance in industrial production.

Foreign trade, international competitiveness and debt

Serbian exports have been growing robustly in the last decade, albeit from a low starting point, but still accounted for only about 50 % of imports. The result of low export competitiveness and the surging import bill was worsening trade and current account deficits. International debt increased to 65 per cent of GDP in 2006 and measures to prevent its further increase will eventually put a constraint on growth.

Foreign capital has flowed into the country on the back of increased foreign direct investment related to the privatisation programme and through foreign banks, which have increased the supply of consumer credit. Confidence in the banking system has gradually been restored and individuals have increased the levels of cash deposits in banks, further increasing the money supply. Credit growth may fuel inflationary pressures and force the government to cut back on its expenditure plans.

In terms of trade, Serbia has experienced a rapid expansion of foreign trade since the real transition. Despite this, Serbia remains a relatively closed country, especially when compared to similar countries in the region: for its part, the level of total trade volume in Serbia stands at 64 % of GDP; in other countries, it ranges between 126 and

170 %. Trade with the EU already accounts for over one-half of foreign trade, and will likely increase as the country and its neighbours in the region continue on the path to integration. An alternative to Europe exists in the form of Russia, on which Serbia is already dangerously dependent for oil and natural gas resources. This, however, would be a rejection of simple economics, as popular demand for European products has been the major force behind the country's improved trade position. The result of this, however, is that Serbia has a large negative trade balance owing to the weak export-orientation of its companies and the relative undesirability of its products on the European market. Fixing this will be of critical importance on the road ahead.

In this regard, it may be seen that agriculture is the sector which Serbia should look to develop in the future. The country's temperate climate, large amounts of arable land and its strategic trading position give it considerable comparative advantages in agriculture. The government's adoption in 2007 of an Agricultural Strategy should deliver an impetus to the modernisation of what is already the country's largest employer and second-largest export earner. The high quality of Serbian agricultural products, combined with low use of agrichemicals, lend hope that a profitable and prestigious 'Made in Serbia' brand can be created in the future.

The EU is Serbia's main trading partner – 63 % of its exports are shipped to the EU and 53 % of its imports stem from EU countries, in particular Germany and Italy. In addition, 27 % of Serbian exports go to central and eastern European countries, in particular Bosnia and Herzegovina and Montenegro, while Serbia receives 18 % of its imports from Russia and a growing part from China, which accounts for 6.6 % of its total imports.

Serbia mainly exports intermediate and non-durable consumer goods, primarily food products and beverages, together accounting for 80 % of total exports. Capital goods account for about 10 % of total exports. On the import side, intermediate and capital goods account for a combined 52 % of imports. Energy and non-durable consumer goods account for 25 % and 15 % of total imports respectively.

From the start of 2003, the balance of foreign exchange worsened up to 2009, indicating a growing foreign trade deficit. The total foreign trade deficit for the 2003-2009 period was €42.2bn, reaching a high share of GDP (27.1 % in 2008).

The sectoral structure of exports from the Serbian economy is dominated by products at unfavourable, lower processing stages (raw materials and intermediate goods). The most common exports were reproduction products and consumer goods and equipment. This period saw a high rate of export growth, but it was not sufficient for the sustainability of the external sector of the economy or the necessary growth of manufacturing. Total manufacturing exports increased in 2009, compared to 2003, by 136.2 %, while imports increased by 45.3 %. The deficit dropped 27.3 % as a result of the more significant decline in imports than exports in the latter part of 2009 as the global economic crisis fell. The total manufacturing deficit in the period amounted to €22.7bn.

The total value of manufacturing exports between 2003 and 2009 was €31.6bn (94 % of total exports). The export structure is characterised by the high share of particular sub-sectors: basic metals (24.1 %); food products, beverages and tobacco (17.1 %); chemicals and chemical products (10.2 %); manufacture of rubber and plas-

tics (7.5 %); and the manufacture of other machinery and equipment (7.1 %). These five sub-sectors constituted two-thirds of manufacturing exports in this period.

The manufacture of basic metals and fabricated metal products recorded a reduced value for exports in 2009 compared to 2008. The 24.1 % share of total manufacturing exports held by basic metals and metal products in 2009 is reflected in an export-import ratio of 105.3 %. The manufacture of iron and steel in 2009 showed a reduced share of the total exports of the basic metals sub-sector (to 28.2 %, from 36.5 % in 2008). Other branches of importance to exports in this sub-sector in 2009 are precious and non-ferrous metals (31.6 %) and other primary production of iron and steel (13.8 %). The production of other machinery and equipment, after two years of growth in export value, achieved a fall in 2009; this now holds a 7.1 % share of total manufacturing exports, and has an export-import ratio of 31.8 %. The most important export sectors in 2009 were the manufacture of weapons and ammunition (23.7 %), household appliances (23.6 %) and other special purpose machinery (19.9 %).

According to geographical structure, Serbian exports are concentrated mainly in the EU (whose countries make up more than one-half of total trade). The most important foreign trade partners in terms of exports are: United Kingdom; Germany; Montenegro; Italy; and Romania. The main foreign trade partners in terms of imports are: the Russian Federation; Germany; Italy; China; and France. The structure of exports is not well diversified geographically – as much as 90 % of Serbia's trade surplus is taken by just three countries: Macedonia; Montenegro; and Bosnia and Herzegovina. The biggest deficit in trade is with the Russian Federation due to the high import dependence of the Serbian economy (oil and gas imports make up about 20 % of the total deficit).

The high rate of growth of exports in January-September 2010 was achieved as a result of growth in the export of ferrous and non-ferrous metallurgy, as well as exports

of agricultural products. In the coming period, on the basis of previous trends in export flows, we can expect a continuing growth in exports.[1]

Summing up, the main characteristics of the Serbian export economy are:

- a low level of production concentration, despite a relatively small value of total exports. Exports are represented mostly in resource-intensive industries while other countries in eastern Europe see the highest proportion being taken by high technology-intensive products
- the export activities of several companies determines the overall dynamics of exports (US Steel, copper and aluminium rolling mills, Gorenje, Tiger...) due to the low value of exports.

There is also a significant correlation between exports and imports, and so also between the biggest exporters and the largest importers. These relationships make it difficult to reduce the trade deficit, since one of the solutions is import substitution which requires the development of a network, or cluster, of suppliers from the domestic market.

Investment

Investment in fixed assets is the most important segment from the point of view of the consumption of GDP growth. The period 2001-2011 realised a more favourable environment for business and investment businesses; however, investment activities, in relation to development needs, remain low. Between 2001 and 2008, investment grew in real terms at an average annual rate of 7 % but, due to the economic crisis in 2009, there was a fall in investment activity of about 20 %. Thanks to measures taken by the government, as well as to major infrastructure projects (the continued construc-

1 Looking at the surrounding countries, the ratio of manufacturing exports in the total export of goods reaches about 90 %. All countries, except Bulgaria and Croatia in 2009, see a significant share being held by motor vehicles and equipment in export processing (i.e. in Czech Republic, Slovakia, Hungary and Romania). In the export processing industry of Bulgaria, predominant shares of total exports are taken by metals, coke and refined petroleum products, clothing and fur, and food products. Bulgaria is, indeed, the largest net exporter of ferrous metals in the region (net exports in 2009 amounted to €1.1bn). The manufacture of basic metals also holds a significant share of total exports (20 %). In Czech Republic, motor vehicles and other machinery and equipment took up 30 % of exports in 2009, and the country is a large net exporter of vehicles (€7.5bn in 2009). Hungary's export processing industry sees a significant share held by radio, television and communications equipment (24.9 %) and the export of motor vehicles (16.9 %). The export of motor vehicles and communications equipment and appliances accounts for 40 % of Slovakia's manufacturing exports. Also, Slovakia is the only country in the region, apart from Serbia, which achieved a net export of iron and steel in 2009. The manufacture of motor vehicles and of communications apparatus and equipment make up one-quarter of the exports of Romania. Finally, the Croatian export structure is dominated by the manufacture of transport equipment, food products, coke and refined petroleum products, electrical equipment and basic metals. The structure of export processing industries among the EU-27 is characterised by high shares being held by chemicals and chemical products, other machinery and equipment, and motor vehicles and trailers.

tion of Corridor 10 and routes connecting western and eastern Serbia), 2010 recorded a growth in investment activity.

Industry's share of total investment increased from 29.9 % in 2001-2005 to 30.4 % in 2006-2008 (and manufacturing from 18.7 % to 21.8 %).

Foreign direct investment

The global economic crisis has primarily affected the flows of foreign direct investment, as well as exhausting the possibilities for privatising the economy and addressing structural weaknesses. In 2009, Serbia managed to attract a net €1.4bn in foreign direct investment, which figure was €452m less than in 2008. In the 2001-2009 period, total net foreign direct investment in Serbia amounted to €12.3bn, the highest level – of €3.3bn – being achieved in 2006. In 2010, there was a continued downwards trend in FDI such that, in the first half of 2010, investment into Serbia amounted to €419.5m – as much as 53 % lower than in the same period of 2009.

Manufacturing has taken the largest share of foreign direct investment, with €90.3m going into the production of basic metals in the period from 2004 up to June 2010. FDI in manufacturing industry amounted to about 25 % of total FDI, with the most attractive areas being the production of food and beverages, and chemicals and chemical products, covering about 45 % of all FDI flowing into manufacturing.

Foreign direct investment in Serbia mainly takes place through the purchase of companies in the process of privatisation, while so-called greenfield investment is less well represented. Unfortunately, the inflow of FDI in Serbia has, so far, been predominantly motivated by the acquisition of local monopolies or oligopolies in the fields of finance, cement production, cigarettes, energy, retail and the like.

Table 3 – Foreign direct investment (% of GDP, 2010)

	Foreign direct investment			
	Stock		Growth	
	2010	2009	2009	2010
ECA countries (i.e. central and eastern Europe and central Asia)	49.2	5.7	3.1	1.6
South-east Europe	34.0	7.0	5.9	4.7
Serbia	53.7	6.2	4.7	3.6
EU10+1	66.5	9.0	2.6	-0.7

Source: IMF International Financial Statistics and Balance of Payments Statistics, World Bank WDI.

Growth in foreign funding is measured as net inflow expressed in terms of percentage share of GDP; growth in domestic bank credit is measured as real growth expressed in terms of percentage share of GDP.

Table 4 – Inwards FDI (€m)

2005	2006	2007	2008	2009	2010
1 329	2 601	4 279	2 255	1 810	949

Source: SIEPA Investors Profile

The process of privatisation, 2000-2011

Based on the privatisation of social capital, set out on the 2001 model, the privatisation process in Serbia is coming to an end. A total of more than 2 400 enterprises have been privatised in public tenders and auctions and more than 700 through the capital market. The remaining privatisation programme envisages the privatisation of more than 300 companies, of which 40 are in industry. Manufacturing has seen 878 companies privatised – 60 by public tender, 515 by auction and 303 through the capital market – around 39 companies remain to be privatised – some 4 % of the total.

The privatisation of manufacturing enterprises achieved a revenue of €1.5bn (55 % of total privatisation revenues) and realised a level of investment worth €953m (73 % of total investment). Resulting from non-compliance with contractual obligations (non-payment of war damages, failure to maintain continuity of production, non-compliance with the investment and social programme or disposal of property contrary to the provisions of the sales contract), 258 sales contracts signed by the Privatisation Agency with customers have been cancelled (44 % of total terminations).

Of the remaining forty industry companies, the privatisation of 19 will take place by public sale (auction or tender) while, for other companies, privatisation has been suspended until particular problems associated with privatisation (unresolved legal and property issues, determination of the share of state ownership, termination of proceedings, nationalisation, etc.) have been addressed.

Problems in restructuring

It turns out that privatisation is certainly a necessary, but not sufficient, condition for good corporate governance. In the case of Serbia, there is an obvious lack of sufficient quality and competent customer-oriented companies, which most directly accounts for the large number of cancelled privatisations. The state of corporate governance in privatised enterprises in Serbia is not satisfactory which, at this point, primarily contributes to the poor level of business performance and development right across Serbian industry.

There are 127 companies, or about 14 % of the total number of enterprises remaining to be privatised (either for the first time or repeated, subsequent to the termination of previous contracts), needing to be restructured. Industry has most of these restructuring cases – i.e. over 20 % of those that remain to be privatised, while construction has a significantly smaller percentage of such companies, i.e. about 5 %.

For a substantial number of enterprises which have been restructured in Serbia, the business and financial programming is left to the new owners for implementation following privatisation. In order to maximise the certainty that the new management of

privatised enterprises will act in accordance with the purchase contracts involving the company, including the new owner's obligation to invest a fixed amount in the business, the customer will provide a bank guarantee. Failure to do so is one of the more common reasons for terminating the contract of sale. The certainty of scheduling investment according to the programme is frequently a component of the contract of sale of the company capital, and has clearly played a positive role in the post-privatisation restructuring of enterprises, but standard contracts for the sale of corporate capital include some commitments that ultimately have completely the opposite impact among new owners. These refer to obligations to keep the same kind of business enterprises, the prohibition of the sale of assets above a certain value and the prohibition of lay-offs during a period. These contractual obligations and prohibitions, which are directed at restraining misuse by the new owners, also inhibit business flexibility and the operations of privatised enterprises and, in fact, contribute to the current freeze, or inadequacy, of the economic structure.

Industrial production

Industrial production in Serbia in the transition period of 2001-2010 demonstrates the following particularly significant features, among others:

- the technological and economic backwardness of the majority of existing capacity
- an unsatisfactory quality of products and services compared to global standards
- high imports
- low levels of marketing and production management
- surplus labour
- failed expectations regarding privatisation
- a lack of foreign direct investment.

The transition period has also been characterised by imports growing twice as fast as exports, which means that the substitution of domestic with foreign production is a feature that has been constantly present. Strong growth in the value of imports has been the result of high public spending and the growth of personal consumption but also, to a lesser extent, the growth in the production of goods for export markets. In addition, the growth of public and private consumption has been based on borrowing on foreign rather than domestic markets. With this growth has come an increase in the coverage of total domestic and foreign demand for imported goods and services (the growth in imports in 2008 compared to 2001 is higher by a factor of more than two). These trends confirm that the strong growth in overall demand has not gone to increase domestic production; this was stopped in 2009 – a year in which the global financial and economic crisis caused a fall in domestic and foreign demand.

In this context, developments in industry in Serbia are similar to developments in industry in the European Union. However, the situation in our country is specific with respect to the effects of the previous period of good conjuncture with the world market, in 2004-2007, and the structural weaknesses of the Serbian economy. So industry, especially manufacturing, entered the crisis with a low rate of kudos, mainly in terms of competitiveness and business efficiency, as well as increased levels of liquidity, a continued decline in the employment rate and a declining number of products for export.

Regarding activities, the largest growth in gross value added was recorded in transport, energy production, manufacturing, financial activities and insurance activities, while the biggest fall was in construction. Industrial production in May grew by 3.5 % while, compared to the same month in the previous year, was higher by 6.8 %. Observed by sector, annual growth has been achieved in the mining (32.1 %), energy production (19.1 %) and manufacturing (2.6 %) sectors.

Industry has been uncompetitive for a long-lasting period (the average growth of physical volume of industrial production between 2001 and 2008 amounted to 2.2 % across industry as a whole and 2.0 % for manufacturing). Under the less favourable business conditions caused by the global recession, in 2009 Serbian industry shrunk to a level of just 44.6 % of its 1990 production level. This point is important because industry, despite the adverse developments, is still among the most important activities in the overall economy: in 2009, total gross value added accounted for 19 % of gross domestic product, from 15.9 %, while about 95 % of external trade relationships were industry-based. Furthermore, industry took a 35.6 % share of the value of the overall economy in 2008.

The largest shares in the overall structure of production held by manufacturing subsectors are: manufacture of food products, beverages and tobacco (30 %); production of basic metals and fabricated metal products (16.3 %); and the production of chemicals and chemical products (8.9 %). The lowest shares are held by: leather production (0.9 %); wood processing and wood products (2.1 %); and the production of other transport equipment (3.0 %).

Table 5 – Manufacturing balance sheet (€m)

	No. Enterprises	No. employees	Revenue	Profit	GVA	Loss	Cumulative loss
2003	15 261	527 532	10 852.4	391.2	2 189.9	931.3	3 684.1
2008	18 509	393 475	22 081.7	1 283.8	4 455.1	1 251.6	5 706.3
2009	18 642	354 178	16 899.5	961.5	3 691.6	1 370.8	5 615.5
Net change, 2003-2009	3 381	-173 354	6 047.1	570.3	1 501.7	439.5	1 931.4
Net change 2009-2009	133	-39 297	-5 182.2	-322.3	-763.5	119.2	-90.8

Source: Serbian Statistical Office

Table 6 – Employees in industry, 2007-2010

	No. employees				Structure (%)				2010/ 2007 index
	2007	2008	2009 (X)	2010 (IV)	2007	2008	2009 (X)	2010 (IV)	
Total employed	2 655 736	2 821 724	2 590 188	2 412 106	100.0	100.0	100.0	100.0	90.8
Agriculture.	551 716	707 318	620 258	549 816	20.8	25.1	23.9	22.8	99.7
Fishing	876	1 526	1 927	2 251	0.0	0.1	0.1	0.1	257.0
Industry	620 966	561 669	515 182	480 639	23.4	19.9	19.9	19.9	77.4
Mining	41 261	32 387	27 726	20 748	1.6	1.1	1.1	0.9	50.3
Manufac-turing	521 744	484 281	441 472	405 485	19.6	17.2	17.0	16.8	77.7

Source. National Statistical Office

Labour market

The negative trends of falling employment and rising unemployment in the twentieth century has continued for most of this decade, even in the years of greatest economic growth. The level of growth experienced has, however, led to an increase in salaries and pensions, despite the continuing decrease in the number of employees. Today, Serbian industry employs 250 000 fewer workers than it did in 1990 – a drop of 35 %.

The multi-year decline in the number of employees in the overall economy is present in all three sectors of industry. The total number of employees in the 2001-2008 period declined at an average annual rate of 0.6 % – in public enterprises it dropped at a rate of 2.7 % while employment in private enterprises grew at a rate of 7.9 %.

The total number of employees in 2009 decreased by 5.5 % compared to 2008. Employees in enterprises, institutions, co-operatives and organisations decreased by 2.2 %, while a high drop – of 13.8 % – was recorded among private entrepreneurs and their employees. In 2010, total employment continued to be reduced, by 4.9 %: in enterprises, institutions, co-operatives and organisations by 3.0 %; and among private entrepreneurs and their employees – the largest decrease – by 10.4 %. The largest decrease in employment in 2010 took place in manufacturing industry – a drop of 28 039 people.

The structural problems of the economy and society have come to the fore in this period. The main reason for this movement is the duality of the labour market in Serbia, where a number of employees have high job security while other employees work on the margins with very low job security. In addition, the effects of the decrease in employment have been accelerated as a result of the restructuring of state-owned enter-

prises; this has led to the transformation of the economic structure and a shift from active to inactive people. The private sector has continued to adapt to the crisis by reducing the number of employees, while the public sector, with the planned reduction in administrative staff, is not sufficiently adapted to the new macroeconomic conditions.

The reduction of employees can be largely explained by the influence of the transition, with an intensive restructuring of 'surplus' employees in privatised companies proceeding alongside the loss of the previous growth model, with employment now being neglected as an important goal of socio-economic development.

The structure of manufacturing industry in 2009 sees the largest proportion of employees located in the production of food, beverages and tobacco (20.4 %); the production of basic metals and fabricated metal products (12.8 %); the manufacture of textiles and textile products (8.3 %); the manufacture of electrical and optical equipment (7.4 %); and the manufacture of transport equipment (6.5 %). Similarly to the global picture in employment, analysis tends to record a parallel move from industry to the service sector. The transition to a market economy has led to a growth of productivity but falling employment: the share of employees in industry in relation to the total number of employees has fallen from 23.4 % in 2007 to 19.9 % in 2010 (and in manufacturing from 19.6 % to 16.8 %).

Participation rate

Unfavourable demographic trends (negative natural population growth and the aging of the population) have contributed to a deterioration in the basic labour market indicators. The main changes in the structure of the working age population in the 2004-2010 period reflects a shift from active to inactive people. The reduction in the total active population is exclusively the result of staff reductions, as is the simultaneous increase in inactivity. The IMF records that, for the 2008-2010 period – the worst of the economic crisis – Serbia lost 440 000 jobs (250 000 officially employed workers and 195 000 workers from the shadow economy). The net loss is worst in industry which, in 2008, employed 526 000 workers but only 447 000 in 2010: 79 000 fewer employees, or a drop of 14.9 %.

Table 7 – Decrease in the number of employees in Serbia during the global economic crisis, by sector

	Total	Industry	Agriculture	Construction	Public services	Education
2008	2 000 145	355 753	42 631	85 904	69 325	133 279
2009	1 899 596	325 183	40 430	81 767	71 157	135 600
2010	1 810 959	303 481	37 995	74 803	70 498	137 269
2011 (June)	1 755 238	295 994	35 435	73 744	70 448	138 949
Difference	-244 907	-59 759	-7 196	-12 160	+1 123	+5 670

Source: National Statistical Office

The active population has decreased by 17.5 % and the activity rate by 8.6 percentage points. The total number of active people, according to the Labour Force Survey, decreased by 5.0 % in 2010 compared to 2009 (i.e. from 3 119 419 people in 2009 to 2 964 966 in 2010). The participation rate of people of working age (15-65), expressed as a percentage of the active population (employed and unemployed) has shown a declining tendency, falling from 60.6 % in 2009 to a low of just 59.0 % in 2010.

At 59.0 %, the participation rate in Serbia is the lowest among European Union and neighbouring countries. The participation rate of young people (aged 15-24 years), which stands at 28.2 %, compares unfavourably with the EU-27 (44.3 %) and with the rate in surrounding countries; at the same time, the participation rate of older people (aged 55-64 years), of 37.3 %, is below the EU-27 figure (49.9 %) but exceeds the participation rate of the same age cohort in other countries in transition. The low activity rate is driven primarily by low activity among young people (15-24), older workers (55-64) and women. The reduction in the rate of the active participation of young people, resulting from the crisis in 2009 and continuing into 2010, may be necessary to provide a long-term balance between the active and inactive population of older workers.

Employment rate

Between 2006 and 2008, the employment rate showed a positive trend; however, in 2009 this fell by 3.3 % percentage points with a further fall of 3.2 % points in 2010. The employment rate, which was already very low, was reduced from 50.4 % in 2009 (which implies that only every other resident of working age was in employment) to 47.2 % in 2010. Compared with the European Union as a whole, individual states and to neighbouring countries, the employment rate is at a very low level. From 2004 to 2010, the number of employees was reduced by 18.2 % and the employment rate by 7.3 percentage points.

Employment by sector

A significant indicator in the group of labour market statistics which demonstrates the structural changes taking place over time is the share of employees in employment by sector. Changes in the employment structure by sector (according to international classification and comparable with the European Union) show trends which are typical of a country whose economy, albeit belatedly, is moving in line with modern trends. This is reflected in the increasing number of employees taking roles in service sector industries.

The structure of employees in 2010, according to sector, is as follows: services – 58.5 % (male 53.1 % and female 65.3 %); industry – 19.3 % (male 23.4 % and female 13.8 %); and agriculture – 22.2 % (male 23.2 % and female 20.9 %). The share of agricultural employees in total employment is high, but is showing a trend towards a decrease: it had stood at 23.9 % in 2009. Employment in services shows a particularly low participation rate of employees in accommodation and food services, of just 3.0 % (directly or indirectly related to tourism).

Other countries in the region show industry sectors with greater participation rates than Serbia: only Croatia has a lower rate (19.2 %). In contrast, the average share of employment taken by employees in the industrial sector in EU-27 countries is 17.7 %.

Serbia's *Strategy for Europe 2020* sets a goal of increasing the employment rate to 75%. If we want to strive to attain the position of long-developed EU countries, it is necessary by 2020 to reach at least the level of the EU in 2010. Achieving this goal requires the increased efficiency of labour markets as well as changes to the structure of the labour force.

Table 9 – Average numbers of pensioners and unemployed and employed people in Serbia, 2000-2010

	2000	2005	2010
Pensioners	1 510 801	1 508 976	1 626 581
Unemployed	731 320	895 697	729 520
Pensioners & unemployed	*2 242 121*	*2 404 673*	*2 356 101*
Employed	2 097 218	2 068 964	1 795 775
Difference	144 903 6.4 %	335 709 13.9 %	560 326 23.7 %

Source: National Statistical Office

Unemployment

The problem of high unemployment, brought from the pre-transition period, has become more pronounced as a result of further ownership transformation and restructuring, as well as economic crisis in 2009 (owing to the bankruptcy and liquidation of firms, redundancies in the process of restructuring and layoffs because of the crisis). An additional problem is that unemployment recorded lower growth in 2010 (65 741 people), compared to the level of 2009, than the decline in employment (220 193 people) in the same period. This indicates that a large number of people who have stopped work simply moved to being inactive (122 012 people).

The labour market is characterised by:

- a mismatch between the supply of and demand for labour
- an increasing mismatch in the skills, age and occupational structure
- an unemployment rate which is well above the EU average (22.2 % in Serbia in 2011 compared to an EU-27 figure of 9.3 %)
- high structural unemployment and long-term unemployment (in Serbia the figure is 69.1 %)
- a high youth unemployment rate (46.2 % in Serbia; 20.5 % in the EU)
- high unemployment among people with lower secondary education levels
- large regional disparities in unemployment.

Between 2007 and 2010, the number of employees in organisations decreased by 78 000 as a result of economic restructuring (92.3 % in the private sector and 7.7 % in

the public sector). In 2008, the entrepreneurial sector absorbed some of the unemployed but was no longer able to do so in 2009. Namely, the number of employees reduced by 22.5 % (128 000 people); a higher figure than that of the growth between 2004 and 2008 (100 305 people).

The unemployment rate (20.0 % in 2010 and 22 % in 2011) continues to be high. Compared to adults, the situation of young people in the labour market has deteriorated even more, since there is an increased gap between the rate of youth unemployment and the unemployment rate of the total population. The structure of unemployment by level of education seems to have been quite stable in this period: the problem of unemployment continues to be most prevalent among those with secondary level education (69.1 %).

Wages

During the transition period of 2001-2010, there was a dynamic growth in net earnings. Average net income increased from €102 (6 078 dinars) in 2001 to €400 (32 746 dinars) in 2008, i.e. by 3.9 times. In 2008, there was a slowdown in the growth of average real net income, including a slower growth in public sector wages. The average annual growth in real wages between 2001 and 2008 was 13.7 %, which is significantly faster than the growth in both GDP (5.4 %) and labour productivity (6.0 %).

Looking at the sectoral level, the highest average net earnings in the 2001-2008 period, compared to the average wage in the Republic, were found in financial intermediation; the production of electricity, gas and water; mining and quarrying; public administration; and social security. The lowest average net income, compared to average salaries in the Republic, were among people employed in agriculture, forestry and water management; manufacturing; construction; and wholesale and retail trade.

The fall in economic activity has influenced a slowing down of wage growth such that, in 2009, real net wages increased by only 0.2 % (a figure which has also been partly influenced by a new research methodology). In the first nine months of 2010, however, net earnings increased in real terms by 2.5 % over the same period of 2009. Above-average wages in the public sector compare to below-average ones in the private sector. Average earnings in mining and energy, and in most of those state-owned (public) enterprises that remain, are considerably higher than wages in manufacturing industry, which is largely privatised. Earnings in agriculture, catering and trade are below average, while public administration, health and education (among people working off the state budget) see above average earnings. Compared to neighbouring countries in 2010, wages in Serbia are higher than in Albania and Bulgaria, and are nearly at the level of Macedonia and Romania, but are lower than in Slovenia, the Czech Republic, Poland, Slovakia, Croatia, Hungary and Bosnia and Herzegovina.

Welfare regime

In January 2008, the state integrated the pensions system for employees, self-employed people and farmers into a single system in order to improve administrative efficiency. The replacement rate of net pensions to net wages was 54.9 % in 2007 (National Statistical Office data). Voluntary private pension funds have existed since January 2006.

Average life expectancy at birth, which can be interpreted as an aggregate measure of the effectiveness of the health system, increased in 2006 to 71 years and 76 years for the male and female population, respectively, but this remains well below average figures in the EU (data from the National Statistical Office). Existing services for long-term care cover only a small portion of the elderly population. A number of institutions work to compensate for gross social differences, although they remain insufficient to deal with the scope of the problem.

On 26 March 2009, parliament adopted an anti-discrimination law which prohibited all forms of discrimination against individuals and groups in accordance with EU anti-discrimination rules. The government also drafted an action plan for the empowerment of women and the advance of gender equality.

According to a survey of living standards conducted by the World Bank in 2007, 6.6 % of the population lived below the national poverty line (of 8 883 dinars ($152) per month). Even though this absolute poverty rate declined between 2002 and 2007, the Gini coefficient of income inequality increased in the same timeframe from 30 to 37. The relative poverty rate (equivalent to 60 % of median consumption per adult) was 14.6 % in 2007. Currently around 6.6 per cent of the population falls below the poverty line (according to the Living Standards Measurement Survey), but one-third of the country's people are barely above the poverty line and remain in danger of slipping into poverty should any adverse economic developments occur. During the same period, poverty has fallen from 14 per cent of the population to about 6.6 per cent (according to the Living Standards Measurement Survey). This decline in poverty is the result of the period of economic growth until 2008 and from Serbia's relatively effective poverty reduction strategy.

Pensions

In the 2001-2008 period, the average annual real growth of pensions amounted to 7.6 %. In 2009, the real growth of pensions was 3.3 % (following an increase of 10 %, these were then frozen at the level of October 2008). The average pension in 2010 was 19 890 dinars and, in real terms, this had decreased by 5.9 % compared to the 2009 level. The total number of beneficiaries increased by 1.6 % (25 239) in 2010. The ratio of the average number of employees and pensioners in 2010 was 1:1, and the average pension is 58 % of average net earnings.

The Serbian metal industry

In the Serbian metals sector there were a total of 11 466 enterprises operating in 2009, of which 11 130 were micro, small- and medium-sized enterprises and 336 were large companies. The structure of this sector also identifies 12 336 entrepreneurial activities engaged in the manufacture of metal products.

The metal industry has represented the backbone of the Serbian economy in the last decade but is today characterised by a significant number of powerful companies which are in the process of re-organisation. On the other hand, there are several successful examples of improving efficiency and productivity – an increasing number of companies are recording impressive business results and quite a solid profit margin.

The first company on the list is undoubtedly the Smederevo-based US Steel Serbia, with a constant growth in operating income of 10 %. The operating income of this enterprise in 2007 amounted to €899m, making it the fifth largest outfit in the domestic economy. Operating earnings (on the EBITDA measure) were slightly lower than in the previous year – the company recorded an EBITDA of €42m, compared to €46m in 2006.

It is interesting to compare the two largest companies: US Steel and RTB Bor had, by the end of 2007, almost the same number of employees – about 5 770 workers – but US Steel Serbia recorded a turnover of €899m and EBITDA of €42m, while RTB Bor had a turnover of €110m and an operating loss of €18m.

Exceptionally high growth rates have been recorded in Novkabel, in the process of restructuring (53 % growth, reaching €49m); and Ball Packaging Europe (revenues up 51 % to €57m). Impol Seval also recorded excellent growth (11 %), while Copper Mill Sevojno Nissal slowed down from its usual extra-high rates (e.g. 50 % in 2006) to a solid 8 %, which is still above the level of the Serbian economy as a whole. Consumer goods manufacturers, and Ball Packaging Metalac, recorded by far the strongest EBITDA margin (16.2 % and 12.7 % respectively), which clearly separates them from other industries on the sector list.

The financial results of the whole sector in 2008 (and probably to an even greater extent in 2009), have been influenced by the global economic crisis; the reduction of output in industrial production and construction; and falling metal prices and metal (semi-finished) products. Positive developments at the sectoral level can be expected by Fiat's decision to start production in Kragujevac, which is traditionally one of the leading customers of the domestic metal industry.

The employment structure in the metal sector

The metal sector, in combination with the electrical sector, offered job opportunities to 70 187 employees in 2009, according to data from the Bureau for Development of Serbia.

The production of metals and metal products saw 45 450 people employed in 2009, mostly in large companies of over 250 employees, which took a total of 20 754, while 14 618 were employed in medium-sized companies and 6 130 and 3 948 in small and micro enterprises, respectively. In machinery production we can find 28 653 employees, mostly in large companies (18 159), while medium-sized ones employ 5 632 people and small and micro ones 3 379 and 1 483 respectively.

The production of electrical components employed 27 503 employees, 10 656 of whom worked in large companies, while 7 709 were in medium ones, 5 853 in small ones and 3 285 in micro enterprises. The production of transport and other equipment employed 24,999 people, 16 424 of whom were found in large companies and 6 966 in medium-sized ones, while small and micro enterprises employed 1 185 and 422 employees respectively.

The production of basic metals and metal products accounts for 30.86 % of the total number of people who are employed in the metal sector; the manufacture of machinery and equipment takes up 25.03 %; the manufacture of electrical equipment accounts for

20.48 %; and transport and other equipment takes up the remaining 23.63 %. The largest number of unemployed men in the metal sector in 2010 were registered in mechanical engineering and metal processing, surveying and transportation.

Earnings

After 2001 and up until the present day, the average wage in the metal sector has consistently lagged behind manufacturing industry by 5-10 %. If we looked at total earnings in the Republic of Serbia, then the wage gap in metals is in the order of 25-30 % – thus, the earnings of employees in this key sector are significantly below the level of average income. With the passing years, this relationship is deteriorating further. In 2001, earnings in the metal sector amounted to 78.1 % of the average wage in the Republic; by 2008, this ratio had dropped to 77.2 %. In some sectors, wages are little more than one-half of the Republic average.

The lowest wages are found in the production of radio, television and communications equipment and the manufacture of precision and optical instruments. The highest salary paid in the metal sector is in the manufacture of basic metals; but, at a level of 36 202 dinars, this is just less than 3 500 dinars above the average for the industry in Serbia.

According to the latest published data, the average salary across Serbia as a whole amounted to 43 353 dinars (gross) and 31 121 dinars net of taxes and contributions. At the same time, net earnings in manufacturing industry amounted to 24 673 dinars; in the manufacture of precision optical instruments, they were 16 796 dinars; 18 821 in motor vehicles and trailers; 18 868 in the manufacture of transport and other equipment; 19 844 in the manufacture of metal products; 20 599 in the production of radio, television and communications equipment; 34 381 in the production of office machinery and computer equipment; and 34 437 in the production of basic metals.

Training

Every year, about 15 000 students graduate from universities in Serbia, one-third of whom come from technical universities. Highly-educated people quickly learn, adopt new technologies, are IT literate and well-versed in foreign languages, and will truly build Serbian human capital.

Eleven Serbian institutions are involved in the production of the new engineers required by various branches of the automotive industry. Blue-collar workers come from a variety of technical secondary schools, of which there is a total of 71 in Serbia, offering a range of specialisations. These workers receive special knowledge and gain practical experience of the advanced technology and rigorous quality standards of the automotive industry.

In Serbia, more than 1 500 talented people skilled in creative industries are formed every year. (The total number of graduates from technical areas relevant to ICT in 2005 amounted to 26 963.)

Technical education in Serbia is particularly strong, with 33 % of graduates coming from technical schools. There are seventeen universities in Serbia, of which eight are state-owned and three based in private information technology or a related science.

High-quality technical education is founded on primary and secondary schools, which offer more advanced programmes in the field of technical sciences than do most other central and east European countries. Serbia has the highest percentage of staff among the working population who are fluent in English across the whole region of south-east Europe (49 %). The ICT sector employs 70 % of the workforce with university degrees. It has also gained an impressive number of awards at the World Engineering Olympiad: more than 220 since 1968. Here, one can single out the general benefits of development: educated and skilled human capital; technical skills (according to a 2008 study from USAID); and specific, focused abilities (software development, hardware design, IT services and systems integration).

Universities in Serbia contribute significantly, particularly at the regional level, linking industry and academia, and assisting the generation of flows of knowledge into the ICT sector. At Novi Sad (forty successful spin-offs developed in the last five years), Niš and Belgrade, a number of spin-off companies have already been established for the commercial exploitation of technical know-how and the technological perspectives rooted in the ideas or research results developed within academic institutions. More than 850 young and educated people generated a turnover greater than €18m in 2007, while exports represent 50 % of the value of the revenues of these companies.

Competition in secondary schools in Serbia for 2009/10 remained level at around 89 000 vacancies, of which about 67 000 were for manufacturing jobs. The greatest reduction in the number of students was in engineering activities and metal processing. The new educational structure creates good examples of innovation in industry for role profiles including fashion tailor; recycling technicians; metal workers and the like. However, the Serbian economy and its industrial development is not accompanied by the development of education, which is not compliant with its profile or needs. This calls for new reforms in education and the labour market in line with new concepts for the desirable level of industrial development that may be achieved primarily through the development of human capital.

Access to lifelong learning and addressing the skills gaps in the metal industry, cutting back on the differences between what exists and what is necessary in the market, would be a first step in defining the necessary skills for certain occupations. The SGA team has identified serious shortcomings in this area: in particular, the existing national occupational standards are outdated and there is no national framework under Serbian jurisdiction. At the same time, competency-based curriculum development occurs only in a few faculties. Using competencies in human resource management in private enterprises is also a rare practice, occurring mainly in large, predominantly foreign-owned firms. Sector-focused training is particularly important for countries in transition such as Serbia, bringing higher education institutions into line with the requirements of the Bologna Process. This is a key challenge since the Serbian educational system is underdeveloped and lifelong learning depends on the small number of schools offering opportunities for adult education.

Skills gaps and the ‘brain drain’

The country has been left with half a million highly-educated professionals, in whose education €12bn has been invested. Serbia is the 132nd of 133 countries that care

about this so-called 'brain drain', as a specific form of labour migration which has intensified the political and economic crisis of the 1990s and between 2008 and 2010. Research shows that the structure of migrants is based on those with the highest levels of education: 329 are doctors, while a large number of masters graduates have ended up in different universities. Their educational profiles may differ, but most are educated in electrical engineering, physics, mathematics, chemistry and medicine. This movement of professionals (the 'brain drain') from Serbia will have a negative impact on the further development of industry, especially in metals and electrical engineering, and on its demographic, economic and social progression.

Partial surveys show that most students (70 %) plan to leave the country. The most frequently-mentioned causes are the lack of opportunities for training and financial issues (salary, housing).

The main challenges facing Serbian industry

The challenges of structural change

According to the assumptions underpinning the new model of growth and development, the average annual growth in Serbian industrial production in the period from 2011 to 2020 is projected at 6.9 %; within total industry, manufacturing should increase annually at an average rate of 7.3 %. Such developments would lead to industry having an increased share of GDP, rising from 17.6 % in 2011 to 19.1 % in 2020, while manufacturing should rise from 13.0 % to 14.7 %. Based on the projections built into the model, average annual real GDP growth in the 2011-2020 period of 5.8 % would increase the share of tradables in GDP from 30.7 % in 2009 to 33.1 % in 2020. Industry and construction, taken together, would increase their share from 21.1 % to 25.5 % (industry from 17.6 % to 18.5 %, and construction from 3.7 % to 6.9 %) while, in parallel, the share taken by services would decline from 55.3 % to 52.9 %.

Financing remains a challenge; attracting a cumulative net inflow of foreign direct investment of €22.7bn (i.e. 5.8 % of GDP on average per year) would require the share of manufacturing in total FDI inflows to rise to more than 40 %.

A review of those areas that have, so far, been attractive to foreign investors highlights those areas that are important in the process of re-industrialisation (food industry, the chemical industry and motor vehicles), but also notes the absence of investment in production machinery and equipment in the electronics industry. Successful examples of inflows of FDI that, prior to the crisis, have significantly affected export growth are: privatisation in the production of iron, steel and non-ferrous metals; beverages and tobacco; manufacture of household appliances, automotive industry; and shipbuilding. Fiat's current investment, and that of associated companies in the manufacture of car parts, will bring an export structure appropriate to developed European countries in terms of the significance of the automotive segment to exports and overall production. However, sufficient similarities with these countries will be achieved only when Serbia is able to attract investment from several large foreign companies in the electronics industry that would serve the production of other foreign markets. Like Fiat, these investors are likely to be attracted to several related companies in the manufacture of components.

Attracting targeted investments in the electronics industry and other areas will require more hi-tech industry and also strong tax incentives and the financial participation of the state, primarily in accepting the cost of training workers and building transport and other infrastructure. Practice has shown that incentive systems between investors and the environment in which they invest, in most cases, does play a role before investors opt for a stable environment that provides assurance that the investment will pay for itself.

Speed of the challenge of technological development

The introduction of ICT and, with it, new materials, industries and production is geared towards the knowledge economy and towards innovation, with a growing presence in developing economies of high technology (which follows the rapid progress made by information and communications technology). The result is that improving production and value-added provides less protection against the competition. It is the geographical distance value chain, and the importance of networks of suppliers and manufacturers of complex functions and services, that strengthens local companies in the chain and adds services to industry. At the same time, the challenge of integrating industry in central and eastern Europe into western European economic structures, and quickly, but also the strengthening of discipline among the candidate countries for EU membership in relation to the new economic architecture of the EU, requires the strengthening of the financial sector to serve the needs of industry.

Climate change

The challenge of sustainable development requires the encouragement of industry to move towards production without release of CO_2, in accordance with the efficient use of resources. The third industrial revolution, as the driving force for building a green economy, will be a long-term challenge to industrial policy in Serbia in terms of accessing the know-how to transform environmental challenges into economic opportunities and to create synergies between economic growth and environmental protection. Combining policy on climate change with the development of sustainable production and consumption structures, will create new jobs, markets and activities which will stimulate economic growth.

Demographic challenges

Our aging population highlights the emergence of specific challenges: the development of new products and services to help older people; the challenges presented an active and healthy aging population; the growth of the average age required for retirement; the creation of employment opportunities for older workers; and the lack of skills.

Trade union initiatives for sustainable industrial policy and employment creation in Serbia

Unions advocate the creation of a new vision for a modern industrial policy in Serbia and also support new approaches to the development of industry. Serbia's new approaches to Europe are represented in the draft *Strategy for Serbia and Industry 2020*.

In designing and implementing a sustainable industrial policy, there are a number of elements which are of particular importance.

The third industrial revolution is a serious challenge to trade unions since green transformation implies jobs being lost at grassroots level. Green social relations at company level should be focused on the development of environmentally-aware factories through integrated release-prevention strategies. Environmental protection should lead to the increased overall efficiency of resources; the optimal utilisation of energy flows; the elimination of emissions and waste; recycling and the production of sustainable products. The greening of social relationships requires necessary capacity to be spent in building, identifying and training green representatives; expanding the scope of policies related to health and safety at work to encompass sustainability issues; and integrating innovative and sustainable strategies in statutory information and consultation procedures.

In this sense, industrial unions want to engage and support the timely:

- development of integrated policy regarding products which improve environmental results in each phase of the product life-cycle
- establishment of dynamic standards and criteria
- enhancement of the efficiency of resources and further regulations on environmental protection
- production of industrial action plans to support environmental industries and research the introduction of environmental technologies, energy efficiency and job creation through the development and provision of services
- development of a map for transforming traditional sectors in a way that is socially acceptable
- introduction of advanced technology of micro- and nana-electronics, advanced and renewable materials and bio-fuels
- development of the vocational training of workers. Training, re-training and new learning, in accordance with the structural changes being made to employment in industry, is vital in the inculcation of the new skills which will be required if production is to be diverted on a path of sustainability. Trade unions remain committed to the timely anticipation of new skills
- adoption of best practice in environmental management: corporate social responsibility requires organisations to recognise that the work done by people (independent, creative and responsible workers) plays a major role in social innovation.

Unions believe that there will be a particular difficulty for industry in Serbia during the transition to sustainable development in terms of finding sources of funds for the implementation of 'green investment' incentives for new recruitment, compensation for the loss of jobs in the 'brown' (unsustainable) economy and the financing of all possible support for partnerships. Many instruments to support this transformation are already available, but they need to be fine-tuned and applied on a larger scale, on a more dynamic and more integrated way and at the earliest opportunity. Only then can a sustainable industrial policy become a driving force behind the creation of new jobs in Serbia.

All sectors are equally important. The focus needs not only to be on hi-tech sectors but also on low and medium technology ones which are capable of high levels of in-

novation and fresh thinking. Many traditional industrial sectors will be able successfully to integrate and apply technology (which often emerges from their own sector) regarding specific and innovative ways of penetrating the 'high market' or getting to those product segments which have high added value. Within an intense process of restructuring, traditional industries in Serbia may be able to remain competitive.

Industrial unions believe that the objectives of industrial development in Serbia up to 2020 should be implemented primarily via horizontal and vertical policies and measures; the proactive action of the state in the industrial sector; the completion of industry's restructuring and privatisation; the transformation of the Agency for Privatisation; and the reduction of the informal economy. At the same time, however, *Strategy 2020* requires clearer connections to be made between the needs of industry and research, modernisation, workforce skills and education, social development and respect for labour laws, in particular through:

- policy support for employment and the labour market. The overall shift towards a new model for economic growth means that employment and the labour market obtains a much more prominent role both in general and in terms of supporting the revitalisation and rapid growth of industrial production. Employment policy has a wide range because it encompasses all the economic policies that affect employment. Labour market policy, on the other hand, consists of those institutions, policies and programmes that directly affect the labour market, including:
  1. labour market institutions – labour laws, minimum wage policies, social dialogue and collective bargaining
  2. active labour market policies, including the policies and programmes of public employment
  3. passive labour market policies, which primarily relate to unemployment compensation.
- reducing the fiscal burden on labour, especially for lower-paid work. In order to create a favourable investment climate to attract investors, and to establish companies, fields of liquidity and competitive businesses, changes are necessary in the field of labour taxation in terms of the reduction of the fiscal burden of work for employees on average and below-average incomes (especially in manufacturing industry). This should accelerate the implementation of the socio-economic agreement reached in 2011 and in joint actions to improve the business environment and increase the competitiveness of Serbian industry, while maintaining employment and macroeconomic stability
- re-affirmation of sectoral collective bargaining, with a leading role for industrial sector agreements within the national system of collective bargaining. Sectoral collective agreements have not been concluded in the Serbian economy (outside the public sector) since the 90s. At the same time, the implementation of the General Collective Agreement concluded in 2008 has been suspended because of what employers see as its unreal nature, i.e. the inclusion of provisions which they believe to be financially unsustainable. Comparative experience shows that countries in which industry collective agreements are dominant, such as Germany and the Scandinavian countries, have less of a problem with competitiveness, even with very high salaries, compared to countries where collective bargaining takes place

predominantly in the public sector, as is the case in most south-east European countries. Given that wages in the public sector in Serbia have, throughout the past decade, grown much faster than the growth in productivity, and faster than wages in the private sector and manufacturing, the re-orientation of the system of collective bargaining around industry-level bargaining would have a beneficial effect on competitiveness, since it would deliver earnings growth in the country which was in line with its productivity growth

- responsible conduct and a predictable minimum wage policy. The minimum wage in Serbia is determined through a six-monthly meeting between the social partners at the Social and Economic Council. In the event that no agreement is forthcoming, the decision on its level is made unilaterally by the government, which happened in 2011
- increasing the share of funds for active labour market programmes, particularly for subsidies for new employment and training at work. The share of funds going towards active labour market programmes has been at a very low level (about 0.1 to 0.15 % of GDP). In 2009, the National Employment Service spent $3.7bn on active labour market programmes, while that amount increased slightly to $3.9bn in 2010. In fact, there was a decrease in real investment on the 2009 level, since the Vojvodina provincial budget, which had invested significant additional funding, failed in 2010. OECD countries invest adequately in such programmes, ranging from a 0.3 % share of GDP to over 1.5 %. To encourage employment growth in industry, two groups of programmes are of particular importance – programmes for new employment, in the form of subsidies to employers for new employees; as well as training programmes which have, in the past, been completely marginalised. Bearing in mind that the reform of the education system, especially vocational schools, takes place very slowly, it can be expected that, with an increasing demand for labour, and its changing structure, deepening in the process the industry skills gap, this would potentially be a bottleneck in the projected expansion of the sector. It is necessary, therefore, to develop and expand occupational training programmes through a partnership between the appropriate expanding sectors and the National Employment Service
- a higher level of health and safety at work entails a significant increase in strategic employment, productivity, industrial competitiveness and the sustainability of social protection. Health and safety at work must operate, in accordance with the changes and the economic development needs of industry, to promote 'welfare to work', i.e. employees' physical, moral and social well-being. This is something that is measured not only by a lack of occupational injuries or occupational diseases. To achieve this, all stakeholders (government, social partners, companies, employees, etc.) must become involved in the provision of support and, in particular, via the following: promotional activities to reduce injuries and occupational diseases, reflecting aspects of gender differences; taking preventive measures and solutions regarding health and safety; preventing the risk of psycho-social hazards and diseases; making changes in forms of employment, work organisation and working time; and analysing new risks, risks from the interaction of chemical, physical and biological agents and risks arising from the working environment.

The strategy for Serbian industry which has been implemented within the privatisation model and the restructuring of industry has entailed a significant social cost: the legacy of the previous difficult period; the negative effects of the global recession; a large percentage of poor people; while further redundancies are planned. The living standards of the majority of the population are still at a very modest level, while there is dissatisfaction among the large number of citizens who consider themselves to be losers in the transition. Consequently, industry unions believe that it is necessary to strengthen the subsequent stages of development, stabilise the social role of the state and develop programmes which set out real social progress.