INDUSTRIAL DEVELOPMENT IN CENTRAL, EASTERN AND SOUTHEASTERN EUROPE DURING WORLD WAR II

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The industrial development of Central, Eastern and Southeastern European countries during the Second World War was linked closely with the German war economy. The main endeavour of the Nazi leadership was to force the countries of the region to produce agricultural products and raw materials for Germany. Between the spring of 1938 and the summer of 1941 the countries of East Central Europe lost either their independence, thus they were totally subjugated both economically and politically to German interests, or became the allies of Nazi Germany.

As far as the region of Central, Eastern and Southeastern Europe was concerned, we had to distinguish three different categories of states:
1. The first group comprised of Austria and the territories of Bohemia and Moravia, which were incorporated into the Third Reich before World War II.
2. The satellite states (Hungary, Romania, Bulgaria and Slovakia), which were under the tight economic, political and military control of Nazi Germany and
3. finally, Poland and Yugoslavia, which were occupied and subjugated by the Germans. During World War II these countries were hit by permanent military operations.

The objective of my essay is to give a brief overview of the industrial development of Central and Eastern and Southeastern European countries during World War II. I focused on analysing the consequences of the German war economy on the industrial development of the region. In this context, it is important to analyse the main factors, which determined the situation of war time industries.

Key words: economic history, World War II, war industry, Central, Eastern and Southeastern Europe

1. Antecedents: The creation of the Grossraumwirtschaft in Central, Eastern and Southeastern Europe

In order to evaluate the impacts of industrial development in Central, Eastern and Southeastern European countries, it is crucial to explain the concepts of Lebensraum and Grossraumwirtschaft, which were the core elements of the national socialist's foreign policy.
It must be emphasized that because of the dismemberment of the Austro-Hungarian Monarchy in October of 1918, most of the states in the region not only lost their raw materials, but also their traditional markets. As a result of the new political structures, which emerged after the 1920's in Central and Eastern Europe, the former economic links were completely broken. The world economic crisis, which started in 1929 further increased these tendencies.

When Hitler came to power on 30 January 1933, the new National Socialist Regime broke up completely with the reconciliation policy and strived for the revision of the Treaty of Versailles. Because of disequilibrium in the balance of payments and trade, caused by the world economic crisis between 1929 and 1933, the Neuer Plan was elaborated by Hjalmar Schacht. The core element of the concept was to provide deliveries of agricultural products and raw materials from Central, Eastern and Southeastern European countries to the Third Reich, which were essential for the German war economy. Already in the 1930s, the countries of Central, Eastern and Southeastern Europe suffered from the impacts of the world-wide economic crisis, from lack of markets and currency. As the industrially developed countries imposed restrictions on import (customs duties and quotas) only Germany could purchase the agricultural products at fixed prices, which were higher than world market prices. The Nazi leadership recognised the key role of the Danube region. Furthermore, the countries of Central, Eastern and Southeastern Europe purchased most of their consumer goods, installations and machineries from Germany. Thus, in the second half of the 1930s, the countries of the region financed indirectly the rearmament programme of Nazi Germany (Domonkos, 2016, p. 300-320).

The core element of the Nazi foreign policy was to build up and expand the concept of Lebensraum and finally to incorporate the Central, Eastern and Southeastern European countries into the German Reich. It must be noted that the notion of Lebensraum had got antecedents in the German political thinking. In the first half of the 20th century it was emphasized that Europe should be unified by Germany in order to counterbalance the dominance of the British Empire, Russia and the United States. The concept was based on economic factors, emphasizing the gains from the rationalization of production and the optimal allocation of factors of production (Ránki, 1990, p. 290).

Hitler and the leader of the Nazi economic policy clearly redefined the objective of the Grossraumwirtschaft. This encompassed the creation of an economic alliance among Germany, Austria, Hungary, Denmark, Belgium and Luxemburg, which could also include Poland and the Balkan countries. According to this concept a Central European bloc should be built up, which would be intertwined by the benefits given to all countries. The economic federation of the Danube Region or the establishment of an enlarged commercial area with the leadership of Germany's industry conform to the development of natural circumstances (Ránki, 1990, p. 291). As far as the concept of Grossraumwirtschaft was concerned, the memorandum, which was elaborated by the Ministry of Foreign Affairs of Nazi Germany and submitted to Hitler in May of 1933 contained the economic territories in Europe, over which Germany should exert a hegemony. The envisaged area included Norway, Denmark, the Netherlands and Central, Eastern and Southeastern European countries. The Nazi regime started to launch a campaign in order to realise these aims. The strong economic and commercial ties between Germany and Southeastern Europe were underpinned by statistical data, historic, ethnic and cultural arguments. Finally, a completely new concept was born, known as Ergänzungswirtschaft, or complementary economy (Mitrovic, 1977, p. 7-45).

The concept of Grossraumwirtschaft became the fundamental principle of the Nazi economic and foreign policy and was complemented by the reshuffle of trade relations, which were based on barter or clearing agreements. The year 1934 was a breakthrough for the Third Reich. In January and February, negotiations led to a new trade agreement between Germany and Hungary. Similar agreements followed with Bulgaria, Yugoslavia and Romania. According to this regional system, which was built on a set of bilateral agreements, export quotas were granted to the agricultural and raw-material-producer Southeast European countries, and Germany, using its funds frozen in the area, paid higher than world market prices. "The countries of the regions also succeeded opening their markets to German industrial goods. The region's share of German foreign trade increased from 3-4% to 10%, but more than one-third basic food staples such as wheat and meat, and two-thirds in tobacco and bauxite between 1929 and 1937" (Berend, 2006, p. 126).

As far as German economic and trade policy was concerned, we must state that the endeavour of Germany to reincorporate the Central, Eastern and Southeastern European countries into its sphere was partially successful. Alice Teichova pointed out that "until the very eve of the Second World War, however, National Socialist Germany's economic policy towards the East-Central and Southeast European states, in spite of cajoling, pressurizing, blackmailing, and threatening, rendered disappointing results. In the first place, trade with the region didn't grow enough. Germany's total trade transacted with the seven successor states by 1937 had not risen above the highest share reached in the 1920s. Her foreign trade turnover exceeded the 1929 level only with Bulgaria in 1937; no other Southeast European country had attained the 1929 volume of trade with Germany". Finally, the author stated that the region, as a whole could not satisfy Germany's rising demand for strategic raw materials (Teichova, 1989, p. 953).

The direct annexation of Austria on 12-13 March 1938, and the dismemberment of Czechoslovakia between the autumn of 1938 and the spring of 1939 was meant a turning point in the Nazi expansionist policy. With the execution of the Anschluss, Austria was reincorporated into the Third Reich. The annexation of Austria made it possible for the Nazis to further expand towards Southeastern Europe. Vienna with its financial intermediary role served to strengthen the economic ties with the countries of Southeast Europe, and meant a complementary economy of the Grossraumwirtschaft. In this context, political, strategic and military considerations were also taken into account (Németh, 2002, p. 255). Austria was reach in iron ore and magnesite, which were essential to the German war economy. The developed industrial capacities and more than 400 thousand unemployed were also available for Germany to adjust its economy to the war needs. Thus, the Anschluss was an economic benefit for Nazi Germany. The value of gold and foreign-exchange reserves of the Austrian National Bank amounted to some 471 million Schilling. Besides the gold and foreign-schilling reserves Austria had significant foreign investments and commitments, which amounted to RM (Reichsmark) 900 million. All of them were transferred into the Reichsbank. The changes in property relationships culminated by the so-called Aryanization.[1] It was estimated in March of 1938 that the properties of 200.000 Austrian Jews amounted to 10 billion RM. Immediately, after the Anschluss in Vienna alone the private property and businesses of 30.000 Jews were confiscated by the National Socialists (Bachinger, 1987, p. 561.). Besides the expropriation of Jewish property, the appropriation of national and public interests, the systematic influx of the large German concerns and the rapid expansion of their previous enterprises soon put a significant part of the Austrian economy into German hands. The Credit-Anstalt Bankverein, which incorporated also a number of small banks, came under the control of the Deutsche Bank; and the Länderbank under that of the Dresdner Bank. By the

[1] Aryanization meant the confiscation and takeover of the private property and businesses of Jews and Slavs by the German authorities or Reich Germans.

end of the war, 200 Austrian enterprises were subordinated to German interests; almost the entire oil industry, and a significant part of the electric, chemical, iron and metal industries as well (Berend – Ránki, 1977, p. 147).

After the direct annexation of Austria, Hitler's main objective was to destabilise and finally to dismember Czechoslovakia. The Munich Agreement, which was signed on 29 September 1938, by Britain, France, Germany and Italy included that those Czechoslovak areas along the German border with 50 per cent German-speaking population were to be incorporated into the German Reich. On the day of the signing of the Munich Agreement, Poland demanded the highly industrialised Tešin, and, on the next day Hungary claimed a certain area of southern Slovakia and the Carpatho-Ukraine.[2] The Czechoslovak government had to fulfil these demands. On 1 October 1938, Sudetenland was occupied by German troops. After the loss of 30 per cent of her territory, a third of her population and two-fifths of her industrial capacity, the Rump Czechoslovakia survived just under half a year. On 15 March 1939, German troops occupied the western areas, which were incorporated into the Third Reich as the 'Protectorate of Bohemia and Moravia'. At the beginning of October 1938, Slovakia declared herself as an autonomous part of the Second Republic and on 14 March 1939, it was constituted as a vassal of Nazi Germany, formally as an independent Slovak state (Teichova, 1988, p. 83).

After setting up the Protectorate, the gold and foreign-exchange reserves of the Czechoslovak National Bank were immediately transferred to the Reichsbank. Their value amounted to some $100 million, much of which was held abroad, partly by the Bank for International Settlements at various financial centres, and partly by the Bank of England in London. Much more significant were the military installations and stocks of equipment, which were taken over by the Germans in Czechoslovakia. Their total value seems to have been about RM 2,000 ($ 800 million), of which rather less than half was in the form of fixed installations. The rest included equipment for 20 divisions, 1582 aircraft, 2600 guns. The confiscation of Czech property also started with the expansion of German companies (Hermann Göring Werke, I. G. Farbenindustrie, Mannesmann concern) and financial institutions (Deutsche Bank and Dresdner Bank). At first, the local branches of Czechoslovak banks (Böhmische Union Bank, Zivnostenská Banca and Böhmische Escompte Bank) were taken over by German financial institutions. After acquiring

[2] On 2 November 1938, the so-called "First Vienna Compromise" gave the Southern territories of Slovakia as predominantly Hungarian populated area to Hungary. On 15 March 1939, Carpatho-Ukraine was annexed by Hungary.

control over the local banks, Germans reconstituted them with enlarged capital. For instance, the Escompte Bank, which was reorganised under the control of Dresdner Bank, made it possible to acquire large holdings, in a wide range of Czech industries, including heavy machinery, cement and textiles (Radice, 1986a, p. 333-334).

Jewish properties worth close to 6 billion crowns were also confiscated by the German authorities. Through a great variety of methods, leading Czech companies were forced to sign the so-called "Treuhand-agreements" through which they were leased out for an unspecified period of time to German concerns. The expansion of Göring's company was especially important. It succeeded acquiring the control of eighty large Czech firms, which had a total of 150.000 workers. The largest German concern also appropriated the Witkowitz Iron Works, the Skoda Works, the Poldona Foundry and other giant industrial concerns. The Tatra Car Factory was acquired by the Dresdner Bank. The Mannesmann concern took over the Prague Railway company, and of numerous industries in Ostrava. Before the Second World War at least half of the industrial shares of the Protectorate were taken over by the Germans, including 90-100 per cent of coal mining, of the cement, paper and oil industries, and at least a quarter to third of all other branches of industry (Berend – Ránki, 1976, p. 564-565).

After the Anschluss and the dismemberment of Czechoslovakia the economic influence of Nazi Germany further strengthened in Central, Eastern and Southeastern Europe. The close relationship between Germany and her eastern neighbours already apparent before 1939, is demonstrated clearly by the data for trade shares (Aldcroft, 1995, p. 90).

Table 1. German share in foreign trade in percent

	Exports to Germany, percent of total		Imports from Germany, percent of total	
Country	1933	1939	1933	1939
Bulgaria	36.0	71.1	38.2	69.5
Hungary	11.2	52.4	19.6	52.5
Romania	16.6	43.1	18.6	56.1
Yugoslavia	13.9	45.9	13.2	53.2

Berend – Ránki, 2006, p. 127.

By 1939, Hungary Romania and Yugoslavia generally conducted half, and Bulgaria 70 per cent of their foreign trade with Germany. It was meant not as a matter of regular foreign trade, but rather an economic dictation of Nazi Germany (Berend – Ránki, 1977, p. 142). The Germans also acquired influence in the industrial and financial sector of the Central, Eastern and Southeastern European countries. For instance, in Hungary 50 per cent of foreign direct investments were owned by German investors. They played a dominant role in the armament, transport and metal industries (Kaposi, 2002, p. 304). In the Balkan countries, invested capital stock of the Germans concentrated mainly on mining and heavy industry. While the share of foreign direct participation in the total invested capital accounted for 10 per cent in Yugoslavia, and 14 per cent in Bulgaria (Berend – Ránki, 1987, p. 817).

Summarizing the experiences of the German expansion policy towards Central, Eastern and Southeastern Europe, it must be stated that with the Anschluss of Austria and the dismemberment of Czechoslovakia, the Nazi regime succeeded in integrating the countries of the region in the Grossraumwirtschaft. The outcome of the aggressive foreign policy followed by Germany in the second half of the 1930s, was that Central and Eastern Europe became a part of the Nazi Lebensraum, and during the war years their economies were adjusted to the war needs of the Third Reich (Domonkos, 2016, p. 320).

2. The industry of Austria and the Protectorate during the Second World War

The first group of countries consisted of Austria and the territories of Bohemia and Moravia. As far as Austria and Czechoslovakia were concerned, their integration into the German war economy happened before the outbreak of the war. Both were developed industrial economies and became the organic part of the German Empire. While most of the countries of Southeastern Europe were forced to produce only raw materials, Austria and the Czech territories played an important role for the German armaments industry throughout the war. Industry was the main driver of growth and it became part of the German war economy, not only in respect of its production, but also with regard to its ownership (Berend – Ránki, 1976, p. 562-563).

Immediately after the Anschluss, all industrial capacities of Austria were adjusted to the needs of the German war economy. The absorption of the country into the Third Reich and the extensive economic development measures, which were introduced by the Nazi regime caused dynamic growth in all sectors – except agriculture and light industry – and productivity and the volume of production also increased substantially. In 1938, real GDP grew by 12,8 per cent and in the following year, economic growth was 13,3 per cent. The spectacular economic boom, which was concomitant of the war years, could be explained by the exploitation of raw materials and industrial capacities. This linked to the armaments production to serve Germany's military needs (Bachinger, 1987, p. 537).

During the Second World War, new industrial units were built in Upper Austria: a coking plant, a nitrogen factory in Linz, and a steel plant in Ranshofen. The size of the Linz metal works was originally planned to produce 2 million tons of pig-iron, had a steel plant and rolling mill attached. Finally, it produced 5 million tons of iron and 120,000 tons of steel. Linz was also the main centre of chemical production. The chemical plant, which was completed by 1942, was capable to produce 60-70 thousand tons of plastic materials. The importance of the huge aluminium plant of Ranshofen was shown by the fact that by 1943, the factory was producing 40,000 tons of aluminium. Because of the establishment of new industrial facilities and the development of existing factories, there was rapid growth of the strategically significant branches of Austrian industry. The production of iron ore and of pig iron between 1939 and 1943 grew by 67 and 149 per cent, respectively. Oil production rose from the 33,000 tons before the war to 1,2 million tons (Berend – Ránki, 1977, p. 148).

The economic boom, which started after the direct annexation of Austria had positive impacts on the labour market. While there were 500,000 registered unemployed between 1934 and 1937, unemployment rate fell from 23,8 per cent in 1938 to 5,8 per cent in 1940. In the following year there was a lack of skilled labour force in all industrial branches. During the war years the number of foreign workers increased significantly. In 1944, its share in the number of people employed in the industry was 28 per cent (Butschek, 1985, p. 223; Bachinger, 1987, p. 531).

The endeavours of the Nazi regime to develop raw material and heavy industrial capacities had harmful consequences on the production of consumer goods. In the case of the paper industry, where production until 1941 somewhat exceeded the 1937 level, sank after 1941, below what it had been before the war. The production of wool had also fallen to half of the pre-war level already by 1941. The most important foodstuffs industry showed the same tendencies. Beer production shrank by 15 per cent, while the sugar industry declined by 5 per cent to the pre-war level (Berend – Ránki, 1976, p. 567).

During the war years the Protectorate of Bohemia and Moravia played a crucial role for the German war economy. It included the largest share of the output of textiles and other consumer goods industries. Between 1941 and 1944 the Czech regions were of particular value to the armament industry of the Third Reich as places of greater security from Allied air bombardment (Teichova, 1988, p. 84). The economic potential of Bohemia and Moravia was shown by the fact that after the Munich Agreement, 70 per cent of Czechoslovak industrial production originated in the Protectorate, while Sudetenland, which was incorporated into the Reich accounted for 22 per cent. Although the Czech Lands contributed by 1944 only 12 per cent of total industrial employment in 'Greater Germany', plus Protectorate, their share in the total increased more rapidly in 1941-1944 than that of any other region: employment in the metals and metal-using sector of Protectorate industry rose by 63 per cent during those years (Krejčí, 1986, p. 452-453).

Industrial development in the Protectorate in the years 1941-1944 was only moderate. Output in 1941 was 8,4 per cent below that of 1939 but had regained that level the following year. In 1943 aggregate output was 13 per cent and in 1944 18,2 per cent above 1939. Industrial production as a whole was probably much the same in the middle of 1941 to early 1944, though there was probably a fall in labour productivity at the end of the period. Up to 1941 metal industries rose moderately, while chemicals increased substantially. Between 1941 and 1944 the production of textiles fell sharply but the metal industries continued to expand (Radice, 1986b, p. 421-422).

The Czech armaments industry was vital for Nazi Germany to cover its military needs. The production of armaments came not only from Škoda at Plzeň and Mladá Boleslav but from Böhmische-Mährische Kolben Danek in Prague; and from Československá Zbrojovka Brno, also with a factory in Moravia at Uherský Brod. All these units were brought together under Reichwerke Hermann Göring's Škoda-Brünn complex, which included the Vitkovice armour-plate steelworks and the high-quality steels from Kladno. Besides armaments production, the chemical industry also played an important role in the war economy of Bohemia and Moravia. North of Brüx (Most) a very large oil plant was started at Malteuern in 1938, staffed with 32,600 workers by the middle of 1942, when it was endowed with its own power station. The hydrogenation plant that operated by the end of 1942 produced 40,000-50,000 tons of motor fuels each month until it was destroyed by Allied bombing. Finally, oil and explosives were produced at Pardubitz (Pardubice), while dyestuffs came from an enlarged plant at Aussig (Ústí) (Turnock, 2005, p. 275).

As far as the industrial development in Austria and the Protectorate was concerned, both countries had common features. During the Second World War, the industrial capacities of Austria and the Czech territories served the German war economy. The production of heavy, armaments and chemical industries grew significantly, while the output of consumer goods fell to 20 and 30 per cent of the pre-war level. The main difference between the two countries was that after the Anschluss, Austria experienced a spectacular war boom, but in the case of the Protectorate the rise in the level of industrial production during the war was relatively moderate.

3. Industrial development of the satellite states (Hungary, Romania, Bulgaria and Slovakia)

3.1. Hungary

Another type of war economy emerged in the countries of Eastern and Southeastern Europe, which were the tight allies of Germany. This included Hungary, Romania, Bulgaria and the puppet-state Slovakia, created by the Germans in 1939. It is worth mentioning a summary of the Hungarian archives, which was written by the Hungarian mission in Berlin for the Ministry of Foreign Affairs in Budapest. This document identified three principal objectives for the economies – including the German plans for the industrial development of the region – of Southeastern Europe. "Farming and agriculture-based industries would remain nationally owned but were to develop through 'directed cooperation' to serve the needs of the German market. Other industries were to be transformed into German concerns. Finally, any industry which was 'inconvenient' to German interests would be phased out" (Radice, 1986c, p. 308).

The industrial development of Hungary was determined by the fact that between 1938 and 1941, the territory of the country was enlarged in four different stages. With the reannexation of ethnically–Hungarian southern Slovakia (2 November 1938) and of Ruthenia (15 March 1939), Northern Transylvania and Vojvodina (30 August 1940 and 11 April 1941), her territory increased from 93,000 to 172,000 square kilometres. As a result of territorial enlargement, population also increased from 9 to 14 million, which had positive impact on employment. The accession of Southern Slovakia, Northern Transylvania and Bačka, Baranja Triangle promoted the modification of Hungary's economic structure (Gulyás et al. 2009, p. 135).

Before the outbreak of the Second World War, Hungary experienced an economic boom. The Győr Programme, which was elaborated by the Prime Minister, Kálmán Darányi on 12 March 1938, became a Five-Year Rearmament Programme. According to the concept of the government, 1 billion pengő were to be invested over five years: 600 million pengő served direct military objectives, the remaining part were to be given to heavy industry and transport. It is worth mentioning that in the second half of the 1930's domestic accumulation of the country was 180 million pengő, thus the infrastructural and military investments contributed to the industrial growth (Csikós–Nagy, 1996, p. 100). In 1939, the volume of industrial production was 22 per cent above the 1938 level. Between 1939 and 1940, the share of armaments industry in total industrial production rose from 7,5 to 9,1 per cent. The role of iron, metal- and engineering industries were particularly important in industrial employment because their share increased to 40 per cent in 1940 (Dombrády et al. 2016, p. 143).

After the attack on the Soviet Union on 22 June 1941, Germany relied on the industrial capacities of Hungary. The Germans, therefore urged the increase of the production of bauxite and manganese-ore, which was essential to the war economy. During the war, Hungary's bauxite production approximately doubled (it was 1 million tons in 1943), 90 per cent of it (900, 000 tons) were delivered to Germany. Hungarian manganese-ore production also doubled; the amount exported to Germany was here 60 per cent (Berend – Ránki, 1976, 572-574). In order to boost aluminium production in Hungary, considerable investments were made near Ajka, where a new power station was started in 1942, while bauxite was processed in Almásfüzítő near Komarom for transfer to the Manfred Weiss smelter in Budapest–Csepel. Further capacity was planned for Felsőgalla (Tatabánya) with an annual capacity of about 5000 tons but it was not achieved until after the war (Turnock, 2005, p. 277). During the Second World War, Hungarian aluminium output increased rapidly, until it reached 13,200 tons in 1944 (Radice, 1986b, p. 436).

Crude oil was another important raw material for the war industry. Oil production came from Lispe, southwest of Lake Balaton. According to Dombrády between 1938 and 1943, crude oil production grew from 42,000 tons to 838,000 tons. In 1943 more than 458,000 tons of mineral oil was delivered to the German Reich (Dombrády, 2003, p. 167).

From 1941 on, the largest Hungarian machine works (Manfred Weiss, Lang, Győr Wagon Factory and Mávag) received state orders to produce army lorries, tanks as well as armour, helmets, guns and ammunitions. Because of Allied bombing from 1942, Germany decentralised its armaments production and placed more and more orders in Hungary (Honvári, 2005, p. 86). The German-Hungarian aircraft production programme, which was agreed in the autumn of 1941 played a crucial role. The main companies involved in this programme were the Magyar Wagon és Gépgyár at Győr (for components), the Manfred Weiss Factory on Csepel Island, and, finally a large fighter-aircraft factory, the Donau Flugzeugwerke (Dunai Repülőgépgyár FT) set up jointly by Manfred Weiss and German interests to undertake serial production of Messerschmitt fighters. Under the programme the new factory was planned to attain an output of 50 Me 109s and Me 210 a month as well as

700 Daimler-Benz aero engines (Radice, 1986b, p. 86). From 19th March 1944 on, Allied air bombardment caused serious devastation in the facilities of aircraft production factories (Gunst, 1996, p. 114).

The development of the war economy in Hungary was accompanied by fast growing heavy industry. In the peak year of 1943, the production of engineering-, iron and metal industries exceeded 150 and 50 per cent of the 1938 level. Against the boom in these sectors, consumer goods industries – textiles-, leather and paper – declined by 25 and 30 per cent. In 1943, industrial production as a whole was 38 per cent above the pre-war level (Berend – Ránki, 1987, p. 819).

3.2. Romania

The development of industry in Romania in the years 1939-1944 was determined by the economic treaty of March 1939. For Nazi Germany, Romania was a colonial territory, whose primary importance was confined in the Grossraumwirtschaft to produce only oil and grains instead of encouraging the growth of industry. Romania's request for help in building up its own modern armaments industry was always rejected by the Germans and this policy was generally followed even when Romania proved to be the most enthusiastic of Germany's allies in the Second World War against the USSR (Radice, 1986b, p. 439).

The trade agreement of 1939, which was signed by Romania and Germany provided oil deliveries to the Third Reich. Germany established several subsidiaries in the country that specialised in oil production. The oil contract of the spring of 1940 stipulated that Romanian oil had to be sold at pre-war prices. In 1940-1941, more than 60 per cent of the oil produced in Romania went to the Third Reich. Between 1940 and August of 1944, 10,3 million tons of oil were delivered to Germany, while the amount of petroleum consumed by the German army in Romania was estimated to be around 1 million tons (Ránki, 1990, p. 297). It must be noted that one of the main obstacles to smooth German-Romanian cooperation for increasing oil production was the Romanian Mining Law of 1937. Although this was modified in 1942 to allow foreign exploration/exploitation of entire structures, there was still effective control of pipelines and insistence on refining all oil produced by Romania. Nevertheless, Romanian oil supplies played a crucial role for the Axis, with export via Giurgiu and the Danube route or by rail through Moldavia and Galicia (Turnock, 2005, p. 280).

As in the case of other Southeastern European countries, the food and raw materials of Romania were delivered to Germany without any recompense.

This was meant as unconcealed despoliation and robbery of the Romanian economy. Industrial growth was modest in the years 1941-1944, however German capital and management penetrated the Romanian heavy industry. Its main objective was to tie Romanian metallurgy and oil refining directly to the German war effort. The agreement of 1940 provided German investment and technical assistance to the Malaxa works and set the pattern of metallurgy. With the support of Hermann Göring Werke a modern milling mill and more Siemens-Martin steel furnaces were installed. This complex became the joint enterprise Rogifer. The Reşiţa and state-owned Hunedoara received similar installations. Germany was also interested in several armaments works in the area between Ploeşti and Braşov operated on the same basis. For Germany, much more important was the increased production of pipeline and railway rolling stock, which was essential for the shifting and transportation of Romanian oil from the Black Sea outlet to the overland route to Germany. Because of the lack of assistance and materials promised by the Germans, the expanded facilities of metal production were overworked and ran down (Lampe – Jackson, 1982, p. 566-567).

Despite the imports of textile machinery from Germany, which rose by two-thirds between 1939 and 1943, Romania suffered from the lack of cotton and wool supplies by the blockade. The output of synthetic fibres was too small to be significant. Nevertheless, the textile industry could maintain some level of activity, mainly in meeting military demands (Radice, 1986b, p. 444).

3.3. Bulgaria

As a result of industrial backwardness, Bulgaria could hardly experience a wartime economic boom. The only exception was the foodstuffs industry, which produced 50 per cent more in 1941 than before the war, but thereafter fell sharply because of the lack of raw materials and bad harvests. The output of the branches of heavy industry was well below the pre-war level, however coal production doubled from 2,1 million tons to 4,7 million tons. Production of electric power also increased from 266 mn kWh to 318 mn kWh, but in 1943, light industry produced between 30 and 40 per cent less than before 1939. Bulgarian industrial output was 100 per cent in 1939, which increased to 118 in the peak year of 1941, thereafter, it declined to 113 and 110 per cent in 1942 and 1943 (Berend – Ránki, 1976, p. 578-579).

Some postwar writers emphasize the positive achievements in the industrial development of Bulgaria in the years 1939-45. New firms were established both in industry and commerce. Capital for joint-stock companies tripled in real terms during the war. The volume of machinery imports by 1943 was almost twice the 1939 tonnage. From 1939 to 1946, food, tobacco and timber processing rose by 40 per cent (Lampe – Jackson, 1982, p. 560). Considering these remarks, a more serious burden on Bulgarian industry was the German failure to deliver the promised imports of raw materials and semi-finished inputs. The imported share of Bulgarian inputs declined from 29 per cent in 1937-8 to 14 per cent for 1941-3 because of these shortfalls. By 1944, the real value of machine production had fallen to 43 per cent of the 1939 level, mainly because total inputs were just 24 per cent of what they had been. Chemical production had also fallen to 75 per cent. Inputs were down by one-half. Despite cotton fibre imported from the Soviet Union in 1940-1 and from Turkey in 1943, textile production had dropped to 63 per cent of its 1939 level by 1944 (Lampe, 1986, p. 117).

3.4. Slovakia

While the Protectorate and Sudetenland played a crucial role for the German war economy, the puppet-state of Slovakia had in 1939 very little industry. Nevertheless, significant industrial expansion took place during the war with the help of substantial German assistance. Immediately after the German recognition of Slovakia's independence in March 1939, Hermann Göring himself, as Chairman of the German Hermann Göring Werke AG, regarded Slovakia as a possible area for the expansion of war industry. According to statistics industrial production in Slovakia increased more rapidly than in the Protectorate. Whereas in Bohemia and Moravia the use of electric power by industry rose by 85 per cent between 1937 and 1943, the total output of electric power in Slovakia grew by 61 per cent (Radice, 1986b, p. 427). In 1943, industrial production was 63 per cent above the 1937 level and the number employed in industry rose by 50 per cent in comparison with 1939, although the so-called German-Slovak Protection Agreement only permitted the establishment of new industrial enterprises with Germany's approval. In many cases permission was not granted by the Germans. Thus, the role of Slovak industrialisation was reduced to produce only agricultural and raw material processing, especially the procurement of timber (Teichova, 1987, p. 622).

Summarizing the experiences of industrial development in the satellite states of Southeastern Europe, we must state that all countries in the region experienced a one-sided economic war boom, which was characterised by the fast growth of heavy and armaments industries, while the production of light industries was well below of 1939 level. The acute shortage of energy supplies and raw materials had harmful impacts on the output of consumer goods. However, the satellite states were subordinated to the Third Reich, they only played a modest role in the German war machinery.

4. Industrial output in the occupied countries of Germany (Poland and Yugoslavia)

In economic terms, the third group of categories comprised Poland and Yugoslavia, which were occupied by the Germans. The common features of these countries were that they not only lost their sovereignty, but also ceased to exist as an economic and political unit.

The agreement, which was signed on 23 August 1939 by Molotov and Ribbentrop, meant the repartition of Poland between Germany and the USSR. The new frontiers situated among the Narew, Vistula and San Rivers. According to the German-Soviet Pact Finland, Estonia, Latvia were incorporated into the Soviet Union, while Lithuania became a German sphere of interest (Palotás, 2003, p. 470). After the capitulation of Poland on 27 September 1939, the western territories of the country, including the free city of Danzig was incorporated into Germany, central Poland became a protectorate under the General Government, while much of its eastern parts were absorbed by Russia. Following the invasion of 22 June 1941, the Russian polish territories were then occupied by Germany (Aldcroft, 1995, p. 88).

After the occupation of Poland, the German authorities didn't follow a comprehensive economic policy. They wanted to destroy and annihilate its economy. In October of 1939, Göring instructed the military authorities in Poland that "all raw materials, scrap, machinery, and so forth which can be used in the German war economy must be removed from the territory. Enterprises which are not absolutely essential for the maintenance of a low level of the bare existence of the inhabitants must be transferred to Germany" (Radice, 1986a, p. 341).

A little later, however, the Nazi authorities changed their industrial policy. They thought that the destruction of industrial capacities was no longer useful. The German attack on the USSR and the more and more intensive air raids by the Allied air forces in the Third Reich made it expedient to leave some industry in the General Government (Landau – Tomaszewski, 1985, p. 157). On 17 August 1940, Göring instructed the German economic minister, Walther Funk to increase the production of agricultural products and raw materials, which were important to the war economy. Thus, the General Government was subordinated to the Four-Year Economic Plan (Długoborski – Madajczik, 1982, p. 376).

However, there aren't precise and comprehensive data on the export of raw materials and manufactured goods, but we must state that during the war years Poland was plundered by the German occupation authorities. The Nazi leadership encouraged Polish mines and industries to increase the production and processing of raw materials. Between 1938 and 1943, coal production rose from 38 million tons to 57 million tons (Berend – Ránki, 1977, p. 153). At the same time oil output jumped by 20 per cent as compared to the 1939 level. Upper Silesian steel and pig iron production was growing but this was achieved at the cost of depreciation in facilities. As a result, industrial production in the General Government decreased by 63 per cent in 1938-40/1. In 1941-3 a certain increase was recorded and in 1942 it was estimated at 60 per cent of the 1938 level. Only those industries working for the German army exceeded the pre-war level of output. The year 1943 was the culminating point of General Government industrial production, thereafter it declined substantially. Light industries suffered from lack of raw materials. For instance, textile production in the General Government fell to 25-30 per cent of the pre-war level, while the output of leather and foodstuffs decreased by 35-40 per cent and 50 per cent (Landau – Tomaszewski, p. 159-160).

Similarly, to Poland, Yugoslavia also experienced dislocation in its industries, as a result of its dismemberment in 1941 and the fighting between the Axis armies and partisans (Radice, 1986b, p. 434). After Germany's invasion in April of 1941, an 'Independent State of Croatia' was established on 11 April, while the Serbs were occupied by the Germans. Separate administration was introduced for the remaining part of Banat, Montenegro and Serbia. The northern territories of Slovenia were absorbed into the Third Reich, while its southern part passed to Italy. Serbian firms were amalgamated into twenty-nine enterprises – all required to produce for the war effort. All industrial equipment (including metallurgy, armaments and a modern footwear factory set up in Borovo by Bata) was dismantled and shipped to Germany. The German authorities made only negligible investments (Turnock, 2005, p. 282-283). Plans were worked out to increase copper ore production at the Bor mines, which was 60,000 tons or even more before the end of the war (Radice, 1986d, p. 408). At the same time, a 500 MW power station in Belgrade burning the brown coal of the Kolubara field was planned to supply power for an aluminium plant but was never completed (Radice, 1986b, p. 435).

It must be noted that the organization of the rest of Yugoslav industry was not restructured as in Serbia. Existing enterprises that produced war materials simply found their ownership taken over by German firms in Slovenia and their management seconded by Croatian officials. The Slovenian metallurgical complexes and lignite mines were in the territory annexed to Germany. Almost all their production was either exported to the Reich or delivered to German troops in Yugoslavia (Lampe – Jackson, 1982, p. 570).

As far as industrial development in both countries was concerned, the German occupation authorities encouraged only the production and processing of raw materials, while other branches of industry, which were not essential to the war economy were annihilated. Finally, Poland and Yugoslavia served as a cheap source of manpower. From the Spring of 1942 approximately 1,5 million Poles were transported as slave workers to Germany (Berend, 2006, p. 129).

Conclusion

The industrial development of Central, Eastern and Southeastern Europe in the years 1939-45 was intertwined by the German war economy. By the end of 1939 all countries of the region became the complementary of the Grossraumwirtschaft and their economies were adjusted to the military needs of the Third Reich. It must be noted that Austria and Czechoslovakia were incorporated into the German Empire before the outbreak of the Second World War and their industrial capacities contributed to the war efforts of Nazi Germany. The main difference between the two countries was that after the Anschluss, Austria experienced a spectacular war boom in all economic sectors – except light industries and agriculture –, while industrial production in the Protectorate was moderate in the years 1941-44.

Another type of war economy emerged in the satellite states of Germany. According to the concept of 'Ergänzungswirtschaft', the Nazis didn't encourage the development of native industries in the countries of Southeastern Europe because this was not only contrary to the economic policy objectives of Germany, but the interests of German concerns as well. The role of their economies was reduced to produce only raw materials, which were essential to the war efforts of the Third Reich. Most of the countries in the region – except Hungary – had modest industrial capacities and their economies couldn't fit into the German war machinery. The development of the war economy in these countries was one-sided and was characterised by the expansion of heavy and armaments industries, while the production of consumer goods (textiles, leather and foodstuffs) declined by 30 per cent to the pre-war level. Light industries suffered from lack of raw materials and other components. The war economic boom, which took place in the region, was only short-lived and it didn't solve the main structural problems (the shortage of capital and low level of domestic accumulation) of the countries of Southeast Europe.

Poland and Yugoslavia, which were occupied by the Germans were treated as war booty. At first, the Nazi regime wanted to annihilate their economies and to deliver all industrial equipment to Germany. Later, it became clear that the industrial capacities and raw materials of these countries could be used for war production. Thus, German authorities ordered to increase the output of raw material processing industries, in order to serve military needs. Both Poland and Yugoslavia were plundered harshly by the Nazis.

By the end of the war, the disassembling of the machinery, the devastation of factories and supplies and finally, military operations caused serious losses in all branches of industry. These factors had negative impacts on industrial production of the region, which declined more than 50 per cent compared to the pre-war level.

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