

EU Integration and the “Backwardness” of New Member States: The Case of Romania and Bulgaria

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Introduction

Among the former socialist countries of Eastern Europe, Romania and Bulgaria, together with other Balkan regions like Albania and southern parts of Yugoslavia, have been regarded as economically “backward” countries. Today, “backwardness” is a sensitive term and those who use it might be denounced as discriminatory or fatalist at best. For example, if I call a country of Eastern Europe a “backward country,” I would be regarded as a person cynically laughing at the serious efforts of the country towards “democratization” and “marketization.” This attitude, however, is preventing us from analyzing the reform process of Eastern Europe from a historical perspective. “Backwardness” is still one of the key issues in thinking about Eastern Europe¹ today.

1. The Backwardness of Romania and Bulgaria

Table 1 shows the occupational distribution between agriculture and industry in the interwar period. It is clear that Romania and Bulgaria, together with Yugoslavia, were underdeveloped in the sense that they did not have developed industries. Berend and Ranki point out that

¹ The author does not use the term “Central Europe” or “Central and Eastern Europe.”

Romania, Bulgaria, and Serbia were “unable to shake off the inertia typical of preindustrial economies” (Berend and Ranki 1977: 139). They also indicate that the Balkan countries could see “the mere beginning of industrialization showed up in the early 1900s, but the upswing of the twenties did not give any effective impetus for advancing much beyond the initial stage” (Berend and Ranki 1977: 241). Nicolas Spulber attracts our attention to the problems of labor productivity. According to him, in the late 1930s, annual per-capita production was about \$300 in industry and about \$100 in agriculture in Romania and Bulgaria, whereas it was \$450 and \$200, respectively, in Czechoslovakia (in dollars of 1938 purchasing power; Spulber 1957: 17).

Table 1. Occupational Distribution at Last Prewar Census (%)

| | Census year | Agriculture ¹ | Industry ² |
|----------------|-------------|--------------------------|-----------------------|
| Czechoslovakia | 1931 | 34.6 | 34.9 |
| Hungary | 1930 | 51.8 | 23.0 |
| Poland | 1931 | 60.6 | 19.3 |
| Romania | 1930 | 72.6 | 9.1 |
| Bulgaria | 1934 | 73.2 | 10.5 |
| Yugoslavia | 1931 | 76.6 | 11.0 |

Note) 1 = Including forestry and fisheries. 2 = Including handicrafts.

Source) Kaser and Radice, 1985, p. 91.

The problem of labor productivity in agriculture has a close connection with overpopulation or surplus population. Table 2 shows that Romania and Bulgaria seriously suffered from this problem.² Overpopulation in agriculture can be regarded as “disguised unemployment,” and such unemployment “created an obstacle to technical advance as well as to the development of productivity” in Eastern Europe. Of course, the overpopulation must not be regarded in a one-sided way and it could have provided some merits for the people living in the rural area of the region, but as for Romania and Bulgaria at least, it was “one of the most significant social problems” (Kaser and Radice 1985: 184–187).

² It is interesting to know that Poland was also overpopulated agriculturally in the interwar period.

Table 2. Estimate of Surplus Agricultural Population at Contemporary Production Techniques in the Early 1930s (as Calculated by Moore)

| | Index of agricultural production per person dependent on agriculture | Surplus population | Population density |
|----------------|--|--------------------|--------------------|
| | European average = 100 | % | Person per sq.km |
| Albania | 22 | 77.7 | 38 (1930) |
| Yugoslavia | 38 | 61.5 | 62.2 (1930) |
| Bulgaria | 47 | 53.0 | 58 (1934) |
| Romania | 48 | 51.4 | 61 (1930) |
| Poland | 49 | 57.3 | 86 (1934) |
| Hungary | 78 | 22.4 | 93.4 (1930) |
| Czechoslovakia | 105 | -4.7 | 107 (1934) |
| Turkey | 35 | 65.0 | |
| Greece | 50 | 50.3 | |
| Portugal | 53 | 46.9 | |
| Italy | 73 | 27.1 | |
| Spain | 88 | 11.9 | |
| Estonia | 100 | -0.4 | |
| Latvia | 111 | -10.9 | |
| Austria | 134 | -34.0 | |
| Germany | 196 | -96.0 | |

Source) Kaser and Radice, 1985, p. 90 [Original source is W. E. Moore *Economic Demography of Eastern and Southern Europe, League of Nations, Geneva, 1945, pp. 63-64, 182 - 192*].

Low labor productivity in industry is relevant to the industrial structure. Table 3 shows that Romania and Bulgaria are characteristic in their small share of workers in metallurgy and engineering. This indicates the backwardness of their industry. It is natural that Romania had an advantage in mining because it had oil resources, and the presence of more workers than in other countries in the chemical industry indicates that oil refining and chemical goods production from oil showed a little progress in the '30s in Romania. As for Bulgaria, it is impressive that it had a considerable number of workers in the food industry (including tobacco) and the textile industry. Bulgaria was generally considered to be agricultural country, but it showed some signs of development of its light industry. In other words, Romania and Bulgaria were agricultural

economies, with some slightly developed industries, which reflected their natural conditions. How did the forty-five years of socialist regime change this situation?

Table 3. Occupational Distribution in Industry (%)

| Country and year of research | Mining | Metallurgy and engineering | Chemicals | Wood-working | Building materials, glass and ceramics | Food | Textiles |
|------------------------------|--------|----------------------------|-----------|--------------|--|-------------------|----------|
| Czechoslovakia (1935) | 10.5 | 25.0 | 4.5 | 5.7 | 12.1 | 4.9 | 23.8 |
| Hungary (1938) | 11.9 | 24.9 | 5.4 | 4.1 | 8.7 | 11.7 | 20.3 |
| Poland (1938) | 13.0 | 28.2 | 5.9 | 6.6 | 12.0 | 7.8 | 19.1 |
| Romania (1937) | 18.0 | 14.9 | 8.2 | 12.8 | 7.0 | 10.2 | 20.4 |
| Bulgaria (1938) | 9.9 | 6.3 | 2.4 | 3.3 | 5.0 | 36.3 ¹ | 29.7 |
| Yugoslavia (1938) | 4.0 | 19.3 | 5.3 | 14.0 | 5.7 | 14.3 | 25.0 |

Note) 1 = Including tobacco industry.

Source) Kaser and Radice, 1985, p. 246.

Table 4 shows the occupational distribution of five countries in 1989. As for Romania, although the share of workers in industry was high, the share in agriculture was also relatively high. Consequently, the share in the “non-productive” sector was extremely low. The non-productive sector here includes “housing and life services, science, cultural and educational services, health, tourism, finance, and insurance,” all of which comprise Colin Clark’s “tertiary sector of industry.” According to Clark, the main industry in a country will shift from the primary sector (agriculture, fishery, forestry, and mining) to the secondary sector (industry, construction, and electric power and gas), and then to the tertiary sector in the course of modern economic development. In this sense, Romania is a country that failed in its transformation from the second to the third stage, or continued a distorted and prolonged process of industrialization. This history must have cast a dark shadow on Romania’s transition to a market economy, because the basis for a well-functioning market economy is not only industry itself but “soft power” such as a sound financial system, a modern transportation and communication system, people with entrepreneurial spirit, and rich

urban amenities. Soft power could not be strengthened without the development of the “non-productive” sector. As for Bulgaria, the declining rate of the share in agriculture was so rapid that the share in the “non-productive” sector was not as low as in Romania, but it must be noted that the absolute level of the share in the “non-productive” sector was lower than that of Hungary, Poland, and Czechoslovakia. Bulgaria shared the same structure as Romania in the sense that its occupational share in the “non-productive” sector was relatively low.

Table 4. Occupational Distribution in the Last Year of Socialism¹ (%)

| | Industry ² | Agriculture ³ | Non-productive sector ⁴ |
|----------------|-----------------------|--------------------------|------------------------------------|
| Bulgaria | 38.0 | 18.7 | 18.5 |
| Romania | 38.1 | 27.5 | 13.0 |
| Hungary | 30.4 | 19.0 | 22.6 |
| Poland | 29.2 | 25.6 | 20.9 |
| Czechoslovakia | 37.8 | 10.3 | 22.2 |

Notes) 1 = Annual average number of workers.

2 = Including mining, excluding construction.

3 = Excluding forestry.

4 = Including housing and life services, science, cultural and educational service, health, tourism, finance and insurance.

Source) SEV, 1990, pp. 67–76.

In short, Romania’s and Bulgaria’s industrialization was so rapid that they could not develop a well-balanced industrial structure, which should have the soft power of modern society behind it. In this sense, both countries were backward countries at the beginning of their system transformation in the ’90s.

2. Delayed System Reform

In Romania, privatization began by the “law on reorganization of state-owned enterprises into companies or public corporations” adopted in July 1990. This law divided state-owned enterprises into public corporations and other companies. Strategic enterprises were to be included in the first category. Under this arrangement, the law left

the former as state-owned enterprises with autonomous governance and transformed the latter into limited companies or joint stock companies. Then, the **“law on privatization of companies”** adopted in August 1991 stipulated concrete procedures of the 1990 law. According to the new law, a **“private ownership fund”** and a **“state ownership fund”** were established; the former was to own 30 percent of the companies’ shares to be privatized with the remainder of the shares to be owned by the latter. The 1991 law provided that the government would issue **“ownership certificates,”** the value of the sum of which equaled 30 percent of the share to be privatized. The certificates were to be distributed among all Romanian citizens over eighteen years of age without payment (*MO*, No. 98, 1990, No. 169, 1991). What we can understand from these two laws is *conservatism*, where strategic enterprises were exempted from privatization, and *eclecticism*, where 30 percent of the whole capital was to be distributed without compensation, leaving the remainder onerous.³

Although these measures towards privatization in Romania started relatively early in Eastern Europe, its privatization process did not advance satisfactorily. Table 5 shows that the GDP share of the privatized sector reached only 40 percent of the whole national economy by the end of 1994, which is nearly the same as Bulgaria’s share. The IMF had already strongly requested that the Romanian government accelerate privatization at the end of 1993, when the IMF concluded a standby agreement with the Romanian government. In May 1995, the upper and lower houses of Romania passed a law called **“law on acceleration of privatization”** or **“law on large-scale privatization.”**

This law provided that new coupons (the value of all coupons was the same as the total value of companies to be privatized) be issued and distributed among people over eighteen years of age. The coupons together with the certificates already issued could be used to buy the shares of over 3000 companies designated by the government. No one company could sell more than 60 percent of its shares to the public through the coupons and certificates (*TE*, No. 26, 1995: 38–40). The rest came to be sold to domestic and foreign investors by auction in cash,

3 As for problems in the reform program in general, see Frausum *et al.* (1994: 738–741).

though 51 percent of shares of the designated 554 enterprises should have been preserved for purchase in cash by strategic investors. As for about fifty big enterprises named by the government, the rest of the shares after the non-cash selling should have been sold by *concours*, not by auction. Public corporations in the petroleum industry, coal mining, power generation, postal services, telecommunications, etc., which were excluded from the privatization policy of 1990–1991, were transformed into “companies,” some of which were to be privatized this time (Jeffries 2002: 329).

Here, we must pay attention to the fact that the “law on acceleration of privatization” was preceded by another law called “law on associations of employees and managers of companies to be privatized” adopted in June 1994. It stipulated the procedures of so-called MEBO [“manager – employee buyout”], in which managers and employees were given priority to purchase their own company’s shares. The “law on acceleration of privatization” was in line with this MEBO promotion policy.

Although MEBO is a simple way to raise the percentage figure of privatization, it is widely known that it has a clear negative impact on the corporate governance of privatized enterprises. Earle and Telegdy found that in the process of Romanian privatization, insider transfers [MEBO] and mass privatization had a smaller positive effect on company’s performance than sales to outsiders (Earle and Telegdy 2002: 657, 679).⁴

Ion Iliescu of the Social Democratic Party (formerly the National Salvation Front) lost the presidential election in November 1996 and Emil Constantinescu who was supported by the Romanian Democratic Agreement (an anti-SDP umbrella organization) won the election. Victor Ciorbea who led the government under Constantinescu announced a bold privatization policy in February 1997, in which selling directly to foreign investors was emphasized. The new policy gained force since around the fourth quarter of 1998. A considerable part of the shares of Romtelecom (telecommunications), the Romanian Development Bank, Petromidia (oil refining), and others were sold to strategic (foreign) investors. At last, in

4 A Romanian economist Gheorghe Zaman had already pointed out this problem in 1995 (Zaman 1995: 26).

June 1999, Dacia, the biggest car-producing company in Romania, was sold to Renault (Jeffries 2002: 330–335).

In 2000 before the next presidential election and parliamentary election, **the progress of privatization was interrupted**. Then, Ion Iliescu of the SDP was again elected president and his administration began to assume a negative attitude towards the progress of privatization. It is said that the Romanian “**oligarchs**” consisting of former communist party members and *Securitate* [the Romanian secret service]⁵ were maneuvering to maintain their interests in the privatization process (Jeffries 2002: 336).

In this period, however, another strong force entered the process, compelling the situation to move ahead in spite of the conservative attitude of the government. This force was EU membership. To enter the EU was the first priority policy even for the conservative government of Iliescu, and to be a member, necessary steps demanded by the EU must be taken. Acceleration of privatization was an important step for Romania to be a member. The new government published the “**Governance Program 2001–2004**” in December 2000, which explained and paraphrased the array of actions and measures to enforce the electoral offer made by the SDP in the last presidential election. It said that “**economic agents may benefit from the mechanisms of a functional market economy and act on the basis of regulation-harmonized practices in general and European practices in particular**” (p. 24). Although it criticized the previous pro-Western government, its keynote was “**consonance with the mechanism of the European Union**” (p. 20). It referred to “**speeding up privatization**” (p. 23) and “**drawing foreign investment**” (p. 25).

In 2004, the government changed again to a pro-Western government and the acceleration got further inertia. By entering the EU at the beginning of 2007, privatization in Romania has reached the level shown in Table 5.

The most impressive driving force towards privatization under the pressure of EU integration was FDI. The net inflow of FDI into Romania jumped in 1997 by 400 percent from the previous year, and after the

5 How much, especially compared to the Bulgarian case, former secret service members of Romania have been involved in the privatization process is open to dispute.

stagnation of 1999–2002, it again jumped by 200 percent in 2003. In 2006, it reached US \$11,430 million, which surpassed that of Hungary, Poland, and the Czech Republic (EBRD 2007: 41).

Table 5. Private Sector Share as % GDP

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|----------|------|------|------|------|------|------|------|------|
| Hungary | 40 | 50 | 55 | 60 | 70 | 75 | 80 | 80 |
| Poland | 45 | 50 | 55 | 60 | 60 | 65 | 65 | 65 |
| Romania | 25 | 35 | 40 | 45 | 55 | 60 | 60 | 60 |
| Bulgaria | 25 | 35 | 40 | 50 | 55 | 60 | 65 | 70 |

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------|------|------|------|------|------|------|------|------|
| Hungary | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Poland | 70 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| Romania | 60 | 65 | 65 | 65 | 70 | 70 | 70 | 70 |
| Bulgaria | 70 | 70 | 70 | 75 | 75 | 75 | 75 | 75 |

Source) Various pages of EBRD (2001), EBRD (2003), and EBRD (2007).

The first comprehensive privatization policy in Bulgaria was launched by the **“law on privatization of state and municipal enterprises”** passed by parliament in May 1992, two years after Romania. This delay compared with other Eastern European countries can be explained by the political turbulence after the collapse of Todor Zhivkov’s power. This privatization law was drafted by the Filip Dimitrov administration of the Union of Democratic Forces,⁶ amid criticism both within and outside the government and pressure from trade unions. The issues, discussed in the process of preparing and considering the law, were how much power state enterprises and the government should retain and how much employees should participate in the process of privatization.

According to the law adopted, the government proved to have made a compromise regarding the above two problems. On the one hand, 20 percent at most of the shares of an enterprise to be privatized was to be kept by the government and used for social security fund and compensation for former enterprise owners. On the other hand, up to another 20

⁶ The administration was founded after the general election of October 1991, which took place after a transition period of about one year since the resignation of the Bulgarian Socialist Party in November 1990.

percent of the shares of a privatized enterprise could be purchased by the workers of the enterprise concerned at a discount. In addition, if more than 30 percent of the employees of an enterprise agreed, the employees could buy out the enterprise at a discount of 30 percent (Jeffries, 2002: 142). We must evaluate these terms as too conservative to build good ownership for the rationalization of enterprise management.

In the first wave of privatization according to the law, five hundred large and medium-size enterprises whose total value in the country equaled 180 billion leva were to be privatized. It must be noted that in this privatization wave, so-called strategic enterprises like arms production, transportation, oil refining, and power generation were excluded. In the second wave, 700 would follow the first enterprises. Besides, in 1993, another 3,485 enterprises started their privatization process by various types of individual trade, such as direct selling, tender, auction, and MBO [management buyout]. However, the progress of privatization was very slow. By the middle of 1994, only one out of sixteen large enterprises and seventeen out of 870 middle-size enterprises had been privatized. Other data indicate that only 6 percent of the value of assets of state-owned enterprises had been transferred into the private sector (Jeffries 2002: 143).

A mass privatization program was introduced to resolve this situation, which mixed purchase by vouchers and cash with purchase by “bad loan bonds.” The process of this program was undertaken in a similar way to the Romanian “mass privatization” of 1995. Preparation of the program was started, at first, by the Lyuben Berov administration (Union of Democratic Forces) but the UDF lost the general election in December 1994, and work to legalize and carry out the program was handed over to the Zhan Videnov administration supported by the Socialist Party. The new administration carried out the task very slowly: it was the beginning of 1996 that the vouchers started to be distributed and it was October 1996 that bids for corporate shares in exchange for vouchers and others started. This privatization program was ended in July 1997⁷ and a second mass privatization program started in January 1999 (Jeffries 2002: 144–146;

7 The UDF again won the general election in February 1997.

Nanba 1996: 88–89). **The main features of this move are that it enabled investment by foreigners and that MEBO became the main method of privatization.** As for MEBO, however, the IMF's **memorandum on the Extended Fund Facility [EFF]**, which covered the period of July 1998 – June 2001, **pointed out that the favorable conditions given to MEBO should be lifted in order to avoid distortions in enterprise governance (Government of Bulgaria 1998: Paragraph 22).** It reveals that the IMF and the Bulgarian government recognized defects in the MEBO system. **The mass privatization program opened new possibilities for the privatization of Bulgaria, and the number of privatized enterprises began to increase rapidly since the middle of 1999, when large enterprises that had been exempted from the privatization process began to be privatized.** This is the same situation as that of Romania since the fourth quarter of 1998.

The most striking fact in the privatization process in Bulgaria to be noted is that the privatization has been a hotbed of corruption. *The Guardian* of December 17, 1994 read, “Diplomats and political observers agree that Bulgaria’s state enterprises are being comprehensively asset-stripped by managers and private businessmen with close ties to the former communists.” *The Financial Times* of October 13, 1994 wrote, “Although formal privatization has been slow, state and municipal enterprises have been subject to ‘hidden’ privatization. This usually involves the formation of private companies to supply state enterprises with inputs at high prices and of other companies to take their subsidized output for resale at market prices. In this way enterprises accumulate inter-enterprise debts and losses while allowing a new class of millionaire to develop. The process of nationalizing losses and privatizing profits is widespread throughout the former Soviet bloc but has been most blatant in countries such as Bulgaria and Romania” (quoted from Jeffries 2002: 146–147).

Accordingly, **both in Romania and Bulgaria, we can find common characteristics in their privatization process: (1) conservatism and eclecticism in privatization laws and regulations in their early stage, (2) application of a mass privatization policy in the second stage, (3) emphasis on the MEBO method in the second stage, and (4) widespread corruption in the process.** Here, we must note that (2) and (3) are results of both governments’ will to boast a high percentage of privatization under the

pressure of international organizations. We can call privatization with these characteristics a **“backward type of privatization.”**

This backwardness has been explained by the conservative policies of the **“pro-communist” governments of both countries.** This is, of course, one reason for the situation, but we must consider another side. That is, backwardness creates backwardness. As is mentioned in the first section, Romania and Bulgaria were backward countries at the beginning of the transition in the sense that they lacked the soft power of modern society. Soft power is, however, an indispensable element in urging a satisfactory privatization process, because privatization is a complicated process calling for legal and institutional knowledge of participants. Secondly, privatization means to produce new owners of enterprises who have expertise in management. Both countries lack such people because of their **“backwardness.”** Thirdly, there have been few domestic financial resources to buy shares of privatized enterprises.⁸ The basic element of financial resources is the savings of the people, but a prerequisite to considerable savings is a thick stratum of wealthy, middle-class people living in the country. Romania and Bulgaria lack such a stratum.

Table 5 shows the trend of privatization of four Eastern European countries. According to the table, stagnation of privatization in the first half of the '90s in Bulgaria and Romania was clear. However, in the second half of the '90s, especially since 1998, Bulgaria caught up with Poland. Romania also showed steady progress in the second half of the '90s and in the new century though with some degree of delay. This catching-up process was driven by the MEBO arrangement and more recently, by the introduction of foreign capital. The former is in a sense a result of the governmental policy to demonstrate high figures, but the latter has significant meaning for the real economy. We must note that the latter has a relationship with EU enlargement policy, because privatization of former state companies by selling their assets to foreigners has been carried out in the process of institutional liberalization of the international capital movement in Romania and Bulgaria, a necessary requirement to be a member of the EU.

⁸ Of course, a resolution to this problem would be to introduce foreign capital.

3. Status of Romania and Bulgaria in EU Integration

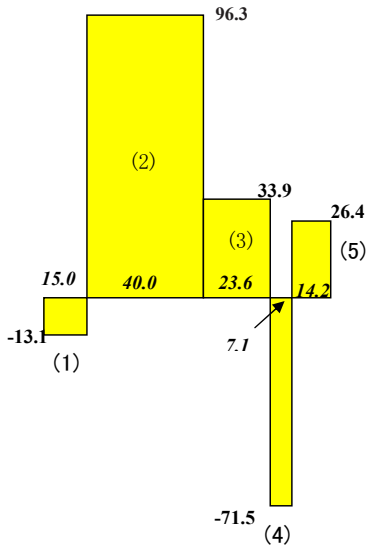
Here, let us introduce a new method of analyzing the trade structure of a country, which we will call TPD. The TPD [trade performance diagram] is devised by the author in order to show the trade structure of a country (or a region) in relation to another country (or another region or the whole world) in a concise way. It is drawn as follows. First, trade commodities should be classified into several groups. Here, the author has classified them into five. If we define E_i = export volume of commodities of group i , and I_i = import volume of commodities of group i , then we obtain five boxes, whose height is $(E_i - I_i) / (E_i + I_i)$ [expressed as a percentage] and whose width is $(E_i + I_i) / \sum(E_i + I_i)$ [expressed as a percentage]. The more commodities of group i are exported than imported, the greater the height of a box becomes; the greater the share of commodities of group i (both export and import) in the whole volume (export plus import) of commodities, the wider the width of a box. If we arrange these five boxes in a line from left to right in a fixed order, we produce a figure like Figure 1. This is a TDP. Here, the author applied the grouping of commodities shown in Table 6.⁹ The TPD can be used for analyzing Romanian trade against the world, Romanian trade against EU, EU trade against USA, USA trade against ASEAN, and so on.

In the process of creating a TPD, we extracted two interesting statistical quantities. One is the size of every box, which represents how much every commodity group contributed to the whole trade surplus (or deficit) in a year. Of course, if a box of a commodity group stands above the horizontal line, it contributed to the surplus of the country (region). If a box is under the horizontal line, it contributed to the deficit. The author named it the “contributing share to the balance [CSB].” The CSB can be calculated as follows using the definition of TPD:

$$\begin{aligned} \text{CSB } i &= ((E_i - I_i) / (E_i + I_i)) * ((E_i + I_i) / \sum(E_i + I_i)) \\ &= (E_i - I_i) / \sum(E_i + I_i). \end{aligned}$$

⁹ The grouping of commodities is according to that of Marrese and Vanous (1983: 153 – 156), though it has no connection with TPD.

Figure 1. Example of TPD



Legend)

Export of commodity group $i = E_i$

Import of commodity group $i = I_i$

Height of every box = $(E_i - I_i) / (E_i + I_i)$ [%]

Width of every box = $(E_i + I_i) / (\sum E_i + \sum I_i)$ [%]

Note)

The figure is drawn by calculating the Russian data in 2001

as for the following commodity groups (against the whole world);

(1)=Machinery

(2)=Fuel

(3)=Materials

(4)=Foods

(5)=Consumers' industrial goods

(See the text as for detailed explanation about the commodity grouping)

Source) Author, using the data of the Customs House of Russia.

Table 6. Commodities Grouping of TPD

| TPD Classification | Index numbers of SITC ver. 3 |
|-----------------------------------|---|
| (1) = Machinery | SITC 7 |
| (2) = Fuel | SITC 3 |
| (3) = Materials | SITC2 + SITC4 + SITC5 +SITC67 + SITC68 + SITC 69 |
| (4) = Foods | SITC0 + SITC1 |
| (5) = Consumers' industrial goods | SITC6 + SITC8 - SITC67 - SITC68 - SITC69 |

Source) Marrese and Vanous, 1983, pp. 153–156.

Another interesting statistical quantity is the “horizontal division of labor rate [HDLR],” which is defined as

$$HDLR = 1 - \sum |E_i - I_i| / \sum (E_i + I_i) = 1 - \sum |CSB_i|.$$

This statistical quantity is created from the author’s idea that the evenness or unevenness of a TPD can be regarded as an indicator of the

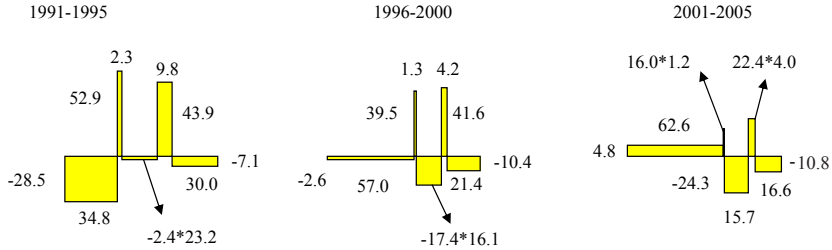
degree of horizontal or vertical division of labor of a country. That is, if a TPD is uneven, we regard trade between the two countries (regions) as a **vertical type of division of labor** and if it is even we regard one as horizontal type. Then, we name the sum of the (absolute value of) size of the five boxes the “**vertical division of labor rate [VDLR]**” ($=\sum|CSBi|$) and if we subtract the VDLR from 1, we obtain the HLDR. It is very interesting that the HLDR is the same as the ratio of intra-industry trade devised by Grubel and Lloyd.

Figures 2–5 are TPDs of four Eastern European countries. According to these, it is clear that the trade of Hungary and Poland against the EU-15 is more horizontal than that of Romania and Bulgaria. We also see a general tendency of vertical to horizontal type of trade in all four countries’ trade. As for individual countries, Hungary’s trade against the EU-15 is the most horizontal and Poland’s trade is the least horizontal. It is worth noting that Poland has always had significant trade deficit against the EU, which is reflected in the big boxes under the central horizontal line in its TPD. **The shape of the TPD of Romania is similar to that of Bulgaria, but we can find some interesting differences between them if we consider the detailed data.** Romania’s food trade (the second box from the right) has been a deficit-making sector, whereas Bulgaria’s food trade has recently been making a little surplus. And Romania’s trade with the EU-15 in consumers’ industrial goods has been making a considerable surplus, with Bulgaria’s trade showing only a slight surplus.

Tables 7–10 show CSBs of the four countries in 1991–2005, which indicate the commodity structure of trade in more detail. The most impressive point in the tables is the fact that Hungary’s machinery sector has turned from a deficit-producing to a surplus-producing sector. Poland has not achieved such transformation, but the deficit in the machinery trade has been diminishing. On the other hand, the machinery sector of Romania and Bulgaria has been showing large deficits and this situation does not seem to be changing. Romania has been a net exporter of consumers’ industrial goods. Bulgaria cannot be called a net exporter but at least it has not been a net importer like Hungary. These findings indicate that Romania and Bulgaria are, in their systems of division of labor in the EU, “**primitive industrial states with the status of subcontractor.**” Here, a “**primitive industrial state with the status of subcontractor**” is a

Figure 2. TPD of Hungary against the EU 15 (Annual Average)

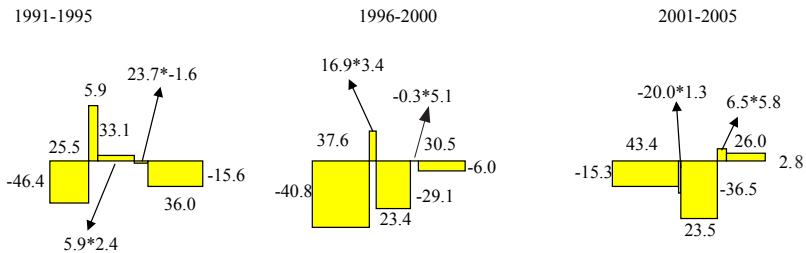
Five boxes are arranged to show the trade of commodity groups of (1) to (5) from left to right



Note) The EU 15 includes countries that were already members of the EU before 2004 enlargement.

Source) Calculated and drawn by the author using the data of OECD (various years).

Figure 3. TPD of Poland against the EU 15 (Annual Average)



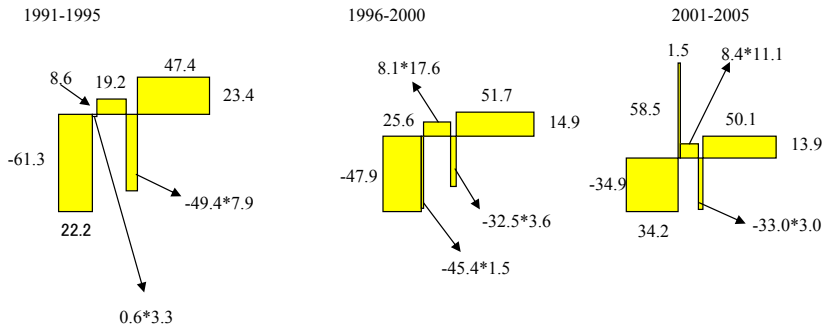
Note) Same as Figure 2.

Source) Same as Figure 2.

country that imports machinery and semi-finished goods from advanced countries, processes them into finished goods, and exports them back. Hungary has graduated from this status.

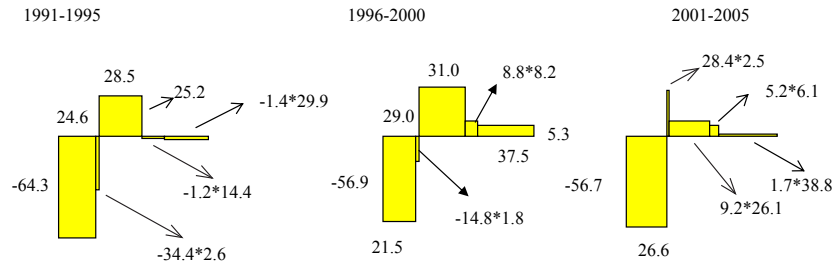
Another interesting point in the tables is that the food sector of Romania has been a net importing sector. This means that Romania could not pursue an economic development policy driven by agriculture under the CAP system of the EU. As for Bulgaria, the food sector has not yet become a net importing sector, but its significance has been diminishing (see also Figure 5). Although Romania and Bulgaria were

Figure 4. TPD of Romania against the EU 15 (Annual Average)



Note) Same as Figure 2.
 Source) Same as Figure 2.

Figure 5. TPD of Bulgaria against the EU 15 (Annual Average)



Note) Same as Figure 2.
 Source) Same as Figure 2.

agricultural countries until World War II, their agricultural productivity and technology in the food industry were outstripped by those of Western European countries during the socialist regime. It is worth noting that even the role of the food sector in Hungary in creating trade surplus has been diminishing.

Figure 6 shows the trend of the HDLR of the four countries. It is clear that Hungary has maintained a horizontal relationship with the EU-15 (advanced Western Europe), whereas the relationship between Romania and the EU-15 has been more vertical. This means that Hungary

Table 7. Hungary's CSB against the EU 15

| | (1) = Machinery | (2) = Fuel | (3) = Materials | (4) = Foods | (5) = Consumers' industrial goods |
|------|--------------------|------------|--------------------|-------------|--------------------------------------|
| 1991 | -11.13 | 2.14 | 1.33 | 8.84 | -0.16 |
| 1992 | -10.77 | 1.56 | 1.34 | 6.35 | -0.80 |
| 1993 | -12.54 | 1.32 | -2.26 | 3.15 | -2.54 |
| 1994 | -11.64 | 0.76 | -1.54 | 2.47 | -3.32 |
| 1995 | -5.66 | 0.73 | -0.93 | 2.70 | -2.86 |
| 1996 | -4.02 | 1.07 | -2.09 | 3.05 | -2.44 |
| 1997 | -2.73 | 0.42 | -2.87 | 1.94 | -2.65 |
| 1998 | -1.39 | 0.47 | -3.23 | 1.58 | -2.44 |
| 1999 | 3.08 | 0.47 | -2.92 | 1.64 | -1.92 |
| 2000 | -3.45 | 0.37 | -2.68 | 1.14 | -1.89 |
| 2001 | 0.44 | 0.37 | -2.81 | 1.19 | -1.50 |
| 2002 | -0.84 | 0.15 | -3.33 | 1.15 | -1.35 |
| 2003 | 0.39 | 0.06 | -3.76 | 1.15 | -1.86 |
| 2004 | 6.66 | 0.09 | -4.44 | 0.75 | -2.16 |
| 2005 | 6.27 | 0.30 | -4.22 | 0.42 | -1.86 |

Note) Same as Figure 2.

Source) Same as Figure 2.

Table 8. Poland's CSB against the EU 15

| | (1) = Machinery | (2) = Fuel | (3) = Materials | (4) = Foods | (5) = Consumers' industrial goods |
|------|--------------------|------------|--------------------|-------------|--------------------------------------|
| 1991 | -15.28 | 1.73 | 4.19 | 0.72 | -9.30 |
| 1992 | -10.69 | 0.47 | 3.31 | 0.70 | -7.98 |
| 1993 | -11.31 | 1.12 | -1.68 | -0.93 | -5.94 |
| 1994 | -10.69 | 2.78 | -0.60 | -0.33 | -4.38 |
| 1995 | -11.70 | 2.93 | -0.85 | -0.51 | -2.89 |
| 1996 | -16.44 | 0.99 | -5.15 | 2.31 | -3.86 |
| 1997 | -17.50 | 0.78 | -6.24 | -0.68 | -2.17 |
| 1998 | -17.19 | 1.24 | -6.89 | -0.67 | -1.69 |
| 1999 | -14.83 | 0.48 | -7.89 | -0.21 | -0.87 |
| 2000 | -11.40 | -0.50 | -7.38 | -0.45 | -0.97 |
| 2001 | -9.02 | -0.06 | -8.16 | -0.21 | 0.14 |
| 2002 | -8.33 | -0.21 | -8.56 | -0.12 | 0.91 |
| 2003 | -6.29 | -0.21 | -8.38 | 0.64 | 1.95 |
| 2004 | -5.03 | -0.23 | -8.57 | 0.62 | 0.61 |
| 2005 | -5.99 | -0.47 | -9.03 | 0.57 | 0.12 |

Note) Same as Figure 2.

Source) Same as Figure 2.

Table 9) Romania's CSB against the EU 15

| | (1) = Machinery | (2) = Fuel | (3) = Materials | (4) = Foods | (5) = Consumers' industrial goods |
|------|--------------------|------------|--------------------|-------------|--------------------------------------|
| 1991 | -8.07 | 4.27 | -1.60 | -5.10 | 16.88 |
| 1992 | -16.06 | -1.26 | -0.62 | -7.06 | 13.51 |
| 1993 | -17.21 | -0.92 | -2.11 | -5.99 | 11.57 |
| 1994 | -13.96 | 0.12 | 3.80 | -1.54 | 11.06 |
| 1995 | -12.41 | -0.57 | 4.60 | -2.36 | 7.44 |
| 1996 | -13.14 | -1.22 | 0.22 | -2.10 | 7.11 |
| 1997 | -11.89 | -0.68 | 2.67 | -0.91 | 7.96 |
| 1998 | -13.94 | -0.46 | 0.64 | -1.81 | 7.75 |
| 1999 | -10.36 | -0.57 | -0.24 | -0.70 | 9.27 |
| 2000 | -12.16 | -0.59 | 3.52 | -0.62 | 6.57 |
| 2001 | -11.36 | 0.11 | 1.56 | -0.75 | 8.01 |
| 2002 | -10.79 | 1.47 | 1.05 | -0.84 | 8.53 |
| 2003 | -10.75 | 0.63 | 0.92 | -0.75 | 7.81 |
| 2004 | -12.20 | 0.91 | 1.74 | -0.79 | 6.55 |
| 2005 | -13.33 | 1.16 | -0.07 | -1.48 | 5.63 |

Note) Same as Figure 2.

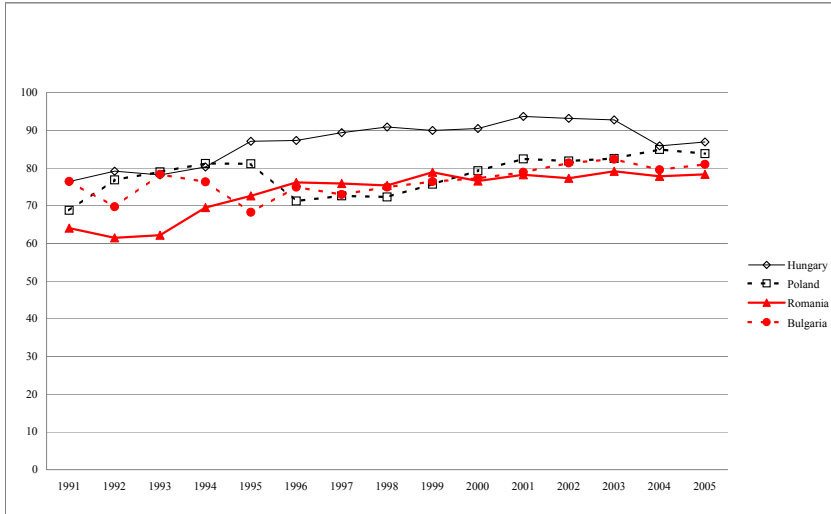
Source) Same as Figure 2.

Table 10. Bulgaria's CSB against the the EU 15

| | (1) = Machinery | (2) = Fuel | (3) = Materials | (4) = Foods | (5) = Consumers' industrial goods |
|------|--------------------|------------|--------------------|-------------|--------------------------------------|
| 1991 | -18.30 | 0.13 | 2.84 | 2.18 | -0.10 |
| 1992 | -18.31 | -2.17 | 4.89 | 2.19 | 2.70 |
| 1993 | -14.82 | -1.46 | 1.91 | -2.22 | -1.24 |
| 1994 | -13.90 | -1.10 | 7.26 | -0.92 | -0.47 |
| 1995 | -15.40 | -0.14 | 13.56 | -0.82 | -1.80 |
| 1996 | -11.35 | 0.17 | 10.57 | 1.92 | 1.06 |
| 1997 | -9.34 | 0.15 | 12.82 | 1.63 | 3.07 |
| 1998 | -12.91 | -0.67 | 9.02 | 0.16 | 2.29 |
| 1999 | -14.59 | -0.86 | 5.08 | 0.86 | 2.18 |
| 2000 | -12.45 | 0.02 | 8.44 | -0.47 | 1.35 |
| 2001 | -14.06 | 0.87 | 4.10 | -0.23 | 1.88 |
| 2002 | -14.62 | 0.78 | 1.36 | 1.32 | 0.54 |
| 2003 | -14.67 | 0.76 | 1.35 | 0.34 | 0.52 |
| 2004 | -15.66 | 0.41 | 2.90 | 0.33 | 1.16 |
| 2005 | -15.51 | 0.83 | 2.41 | 0.04 | -0.23 |

Note) Same as Figure 2.

Source) Same as Figure 2.

Figure 6. Horizontal Division of Labor Rate (%)

succeeded in changing its status in Europe from middle developed to highly developed.¹⁰ On the other hand, Romania has been unable to grow out of its backwardness concerning trade relations with Western Europe. Bulgaria is similar in this respect to Romania. It is difficult to evaluate the trend of Poland, but if we take into consideration that the net import of machinery has been declining (see Table 8), Poland's trade relations with Western Europe are more advanced than those of Romania and Bulgaria.

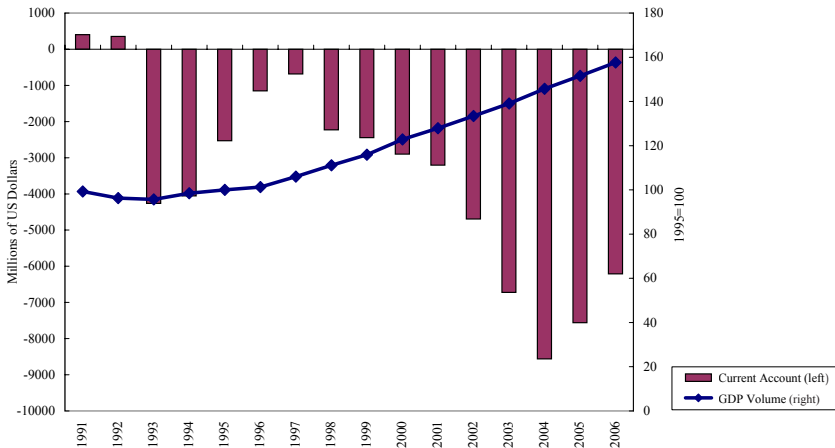
Concluding Remarks

We have shown that Romania and Bulgaria were backward countries at the end of the previous regimes and, in the course of transformation in the '90s and after, they could not shake themselves free of their status in the sphere of system reform and trade structure in EU integration.

¹⁰ The decline in Hungary's HDLR in 2005 and 2006 was caused by an increase in net export of machinery. Therefore, this phenomenon means advancement of Hungarian industry, instead of backwardness.

However, Figures 7–10 indicate another side of the situation. The figures show that Hungary and Poland have the same tendency as Romania and Bulgaria from the viewpoint of international financing: economic growth¹¹ under current account deficit. This is a reflection of the situation where economic growth would accelerate import more quickly than export, accruing a current account deficit, which should in turn be covered by capital inflows from advanced countries like Germany, Netherlands, and Britain. This picture is quite different from that of China and Japan, where economic growth took place at high speed.

Figure 7. Current Account and GDP: Hungary



¹¹ The rate of economic growth is higher in Hungary and Poland than in Romania and Bulgaria.

Figure 8. Current Account and GDP: Poland

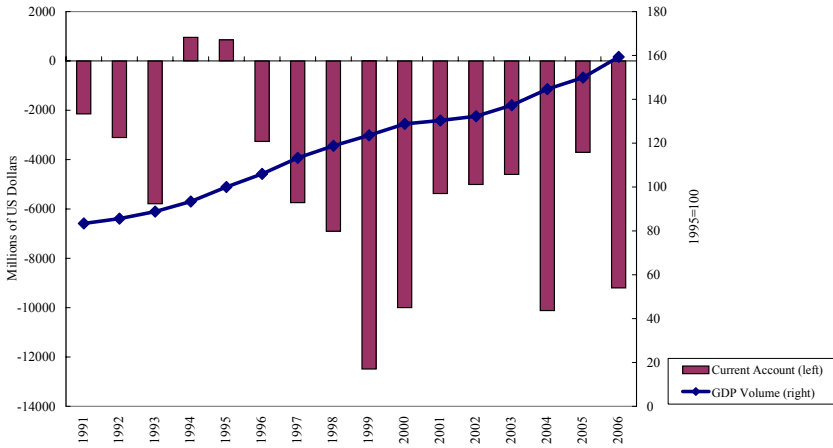


Figure 9. Current Account and GDP: Romania

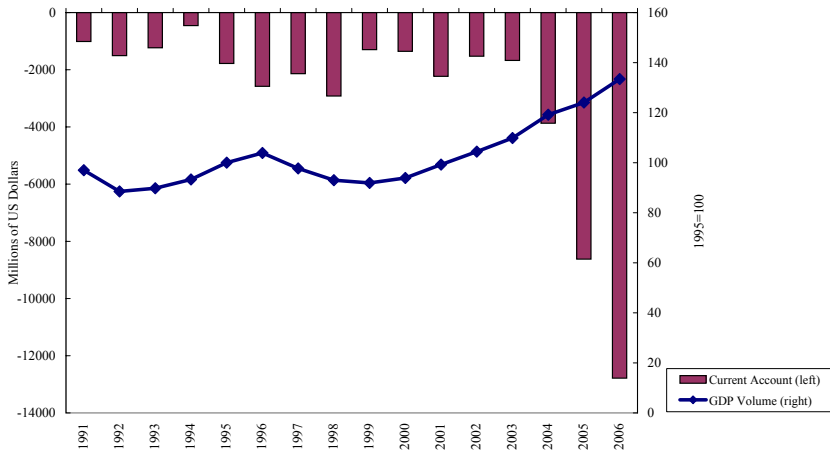
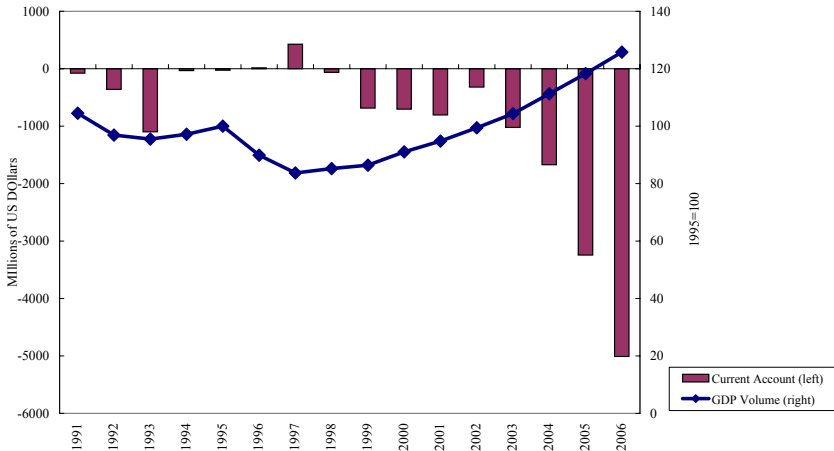


Figure 10. Current Account and GDP: Bulgaria

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