

Labour developments, living standards and well-being in Eastern Europe before the transition

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Abstract

This article examines trends in population, labour, prices, incomes and consumption across eight Eastern European countries – Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania, the Soviet Union and Yugoslavia – between 1950 and 1990. It finds that, despite persistent shortages, economic and social conditions generally improved until the late 1970s. Incomes and consumption rose steadily, and access to education and health care expanded, often at rates comparable to or even surpassing those in some Western European economies. However, the 1980s brought mounting economic challenges, as the state increasingly lost labour to the informal sector, wages and incomes stagnated, inflation surged in several countries, and consumption growth began to slow significantly.

Keywords: population, labour, incomes, prices, consumption, living standards, well-being, Eastern Europe, socialism

JEL classification: N34, P22, P23, P24

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1. Introduction

This article deals with the labour and social aspects of economic development of the eight Eastern European countries – Bulgaria, Czechoslovakia (CSSR), East Germany (GDR), Hungary, Poland, Romania, the Soviet Union (USSR) and Yugoslavia – over the period between 1950 and the start of the transition in the early 1990s. Specifically, it covers five main topics: (i) population and its drivers, (ii) labour developments, (iii) prices, (iv) incomes and (v) consumption.

While some of these topics were analysed even at that time (see e.g. Askanas 1980; wiiw 1981; Collier 1988; Havlik 1991; Schroeder 1992), our aim is to revisit them with a fresh perspective using a modern macroeconomic framework and approach in order to obtain some novel insights that will deepen our understanding of these economies as well as their performance, evolution and collapse.

The bulk of the data underlying our analysis are taken from the wiiw COMECON Dataset, which is based on the annual statistical yearbooks of Eastern European countries of that time. While the statistics unit at wiiw has put a lot of effort into harmonising the data as much as possible, the data remain patchy for some of the indicators. In some cases, they are not available for all countries, while in others the definition of indicators is not uniform, so one should be cautious when making cross-country comparisons (see Schwarzhappel et al. 2024 for an introduction to and recommendations on how to use the dataset). The latter applies particularly to indicators expressed in monetary terms (e.g. personal incomes and prices), while those expressed in physical units (e.g. the consumption of meat) generally show much better comparability. Finally, while the population data are available for the entire period in question (i.e. since 1950), the availability of many other indicators does not start until 1960 or even later. Wherever possible, we will compare the data for the Eastern European countries with corresponding data for some Western European countries (e.g. West Germany, Austria, Italy and France) to see whether the performance of the former was significantly different from the performance of the latter.

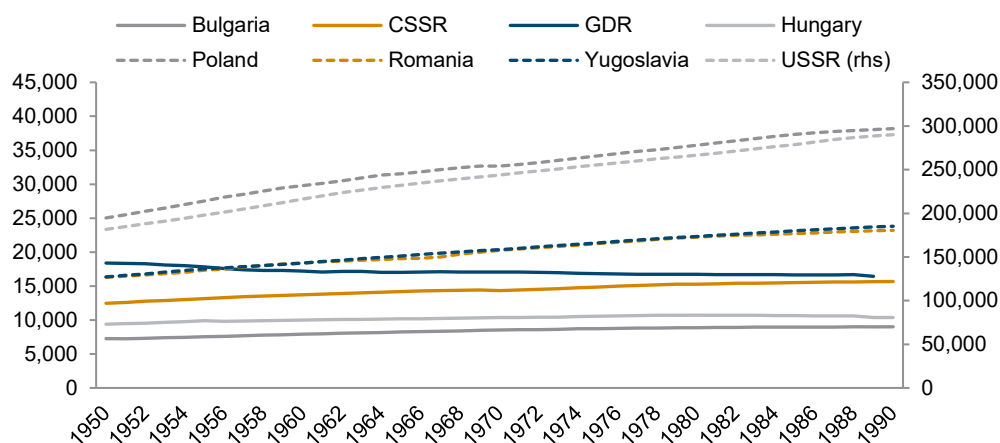
By and large, our analysis demonstrates that, despite persistent shortages, things in Eastern European economies were developing reasonably well until the late 1970s. Wages and incomes were generally growing, while the consumption of most food products and consumer durables as well as the social indicators (e.g. the provision with education and health care) steadily improved. Similarly to Western economies (albeit to a smaller extent), there was an ongoing shift in the structure of employment away from agriculture and towards ‘non-productive’ services. However, economic problems started increasingly mounting in the 1980s, with the state losing labour to the informal sector, with wages and incomes levelling off, and with the relative price stability slowly unravelling. Yugoslavia and Poland, which were both hit by severe crises in the early 1980s, were affected by these developments the worst.

2. Population

2.1. DECLINING BIRTHRATES SLOWED POPULATION GROWTH

Over the period under analysis, most Eastern European countries were characterised by growing populations (Figure 1). Between 1950 and 1989, the population grew by 59% in the Soviet Union, 52% in Poland, 45% in Yugoslavia, 42% in Romania, 26% in Czechoslovakia, 24% in Bulgaria, and 11% in Hungary. At the same time, East Germany's population declined by 11%, largely due to persistent emigration (for more on that, see below).

Figure 1 / Population, in thousands



Source: wiiw COMECON Dataset.

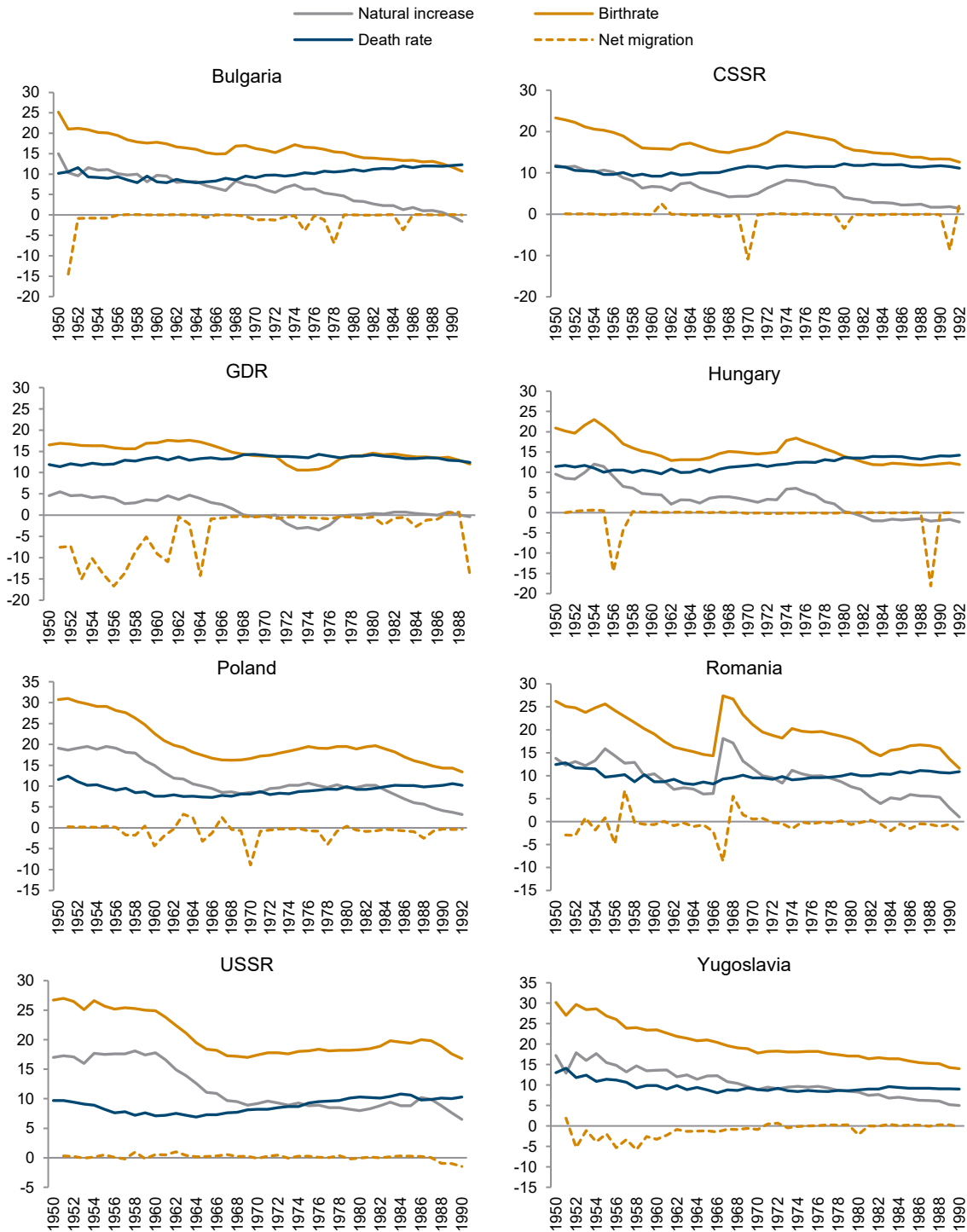
A look at Figure 2, which shows individual drivers of population dynamics (e.g. birthrates, death rates and rates of net migration) explains the cross-country differences above.

Common to all East European countries is that the *natural* population increase (i.e. the difference between the numbers of births and deaths) slowed over time, reflecting primarily lower birthrates. In most countries, the birthrate declined from levels of 20-30 births per 1,000 population in the early 1950s to 10-15 births by the late 1980s, reflecting growing urbanisation and the progressive change in women's attitudes towards family and career. Romania presents a special case, with a sharp one-off rise in the birthrate in 1966 as a result of the government's ban on abortions and contraceptive measures.¹ Conversely, the pronounced dip in the birthrate in East Germany in the first half of the 1970s, which partly mirrored developments in West Germany, can be largely attributed to the proliferation of birth control pills. In response to this development, the government adopted a range of measures in the mid-

¹ Decree No. 770/1966 prohibited abortions as well as the use of contraceptive means. The government's stated goal was to increase the country's population from 23 million to 30 million in order to have sufficient labour force required for industrialisation. Every woman under the age of 45 had 'the patriotic duty to give to the homeland at least five children' (Lataianu 2002).

1970s targeted at supporting families, which helped the birthrate to temporarily recover to previous levels (Statistisches Bundesamt 2012).

Figure 2 / Drivers of the change in population, per thousand of population



Note: Natural population increase is the difference between births and deaths. Net migration has been calculated as a residual between the overall and the natural population increase.

Source: wiiw COMECON Dataset; own calculations.

In contrast to birthrates, mortality rates remained relatively stable (at levels of 10-15 deaths per 1,000 population) throughout the entire period of observation. In most countries, they recorded slight declines until around 1965 but picked up again thereafter (most notably in Hungary and Bulgaria), with the effects of medical advances and higher life expectancy on mortality most probably being over-compensated by those of the ageing population.

As already mentioned, all Eastern European countries showed a trend slowdown in the natural population increase during the period in question. However, in only three countries (i.e. Bulgaria, East Germany and Hungary) did it eventually become negative, as birthrates fell below mortality rates. In East Germany, this already happened in the early 1970s and remained the case for most of that decade before recovering to close to zero in the 1980s. Hungary was recording natural population decline throughout the 1980s, while it did not turn negative in Bulgaria before 1990.

2.2. NET OUTWARD MIGRATION

Although the statistical yearbooks do not include data on (net) migration flows, this information can be calculated as a residual between the overall and the natural population dynamics. The results of these calculations are also presented in Figure 2.

One can see that (i) Eastern European countries were generally characterised by outward net migration, and that (ii) its magnitude was quite low in the majority of countries and in most years. The Soviet Union offers an extreme example in this respect: Until 1989, net migration did not exceed one per 1,000 population in a single year, as the country was notorious for having migration restrictions so severe that it was virtually impossible to leave legally.² In most other countries, sizeable emigration was only confined to some years. For instance, sharp spikes were recorded in 1956 in Hungary and in 1970 in Czechoslovakia, which were related to the brutal suppression of the Hungarian Uprising (1956) and the Prague Spring (1968), respectively, by soldiers from the Soviet Union and other Warsaw Pact countries. Thus, by and large, population trends in the majority of East European countries between 1950 and 1990 were primarily shaped by demographic developments rather than migration, most notably by declining birthrates.

By recording sizeable net outward migration for protracted periods of time, three socialist countries stood out from the general pattern: East Germany, Poland and Yugoslavia.

East Germany was characterised by strong outward migration until the mid-1960s, which almost invariably outstripped the natural population increase and explained in large part the above-mentioned overall population decline. Although large migration flows ceased soon after the Berlin Wall was built (in 1961), a similar pattern re-emerged in the late 1980s, albeit on a smaller scale. Apart from Yugoslavia and East Germany, there were also some blips in Bulgaria, Poland and Romania.

² There is, for instance, a well-publicised case of [Stanislav Kurilov](#), a Soviet oceanographer who jumped overboard from a cruise ship off the Philippines in 1974 in order to escape the USSR. The Soviet Union was also restricting ethnic Jewish emigration, which prompted the US to impose trade restrictions on the USSR in the form of the so-called 'Jackson-Vanik amendment to the Trade Act of 1974', which remained in place until 2012.

Poland was characterised by substantial outward migration during the 1980s, with an estimated 1.1 million to 1.3 million people having left the country. This was partly enabled – ‘to a degree unknown before in any socialist country’ (Okólski 1999) – by the freedom to travel abroad that was granted to Polish citizens between the rise of the Solidarity movement in September 1980 and the declaration of martial law in September 1981, and it was re-instated shortly thereafter. The bulk of this emigration remained unregistered and therefore does not feature in Figure 2. Many of the migrants were Polish tourists over-staying in Western countries. While some were accepted by West Germany as ethnic Germans, others were granted political asylum or temporary protection in countries such as West Germany, Austria, Italy and Greece before moving to countries overseas, such as the US, Canada, Australia and South Africa. Finally, there was a rapid increase in the outflow of labour from Poland during the 1980s, predominantly to non-Western countries (ibid.).

In **Yugoslavia**, strong emigration, especially in the 1960s, was driven by the increasing efforts of Western countries, such as West Germany and Austria, to attract workers from abroad to overcome domestic labour shortages. This was also supported by the Yugoslav regime in power at that time given the poor situation in the country’s labour market,³ in particular the ‘surplus’ of unskilled and low-educated jobseekers. Similarly to the case of Poland, this labour migration was often not officially documented, so it is only visible in Figure 2 to a limited extent.

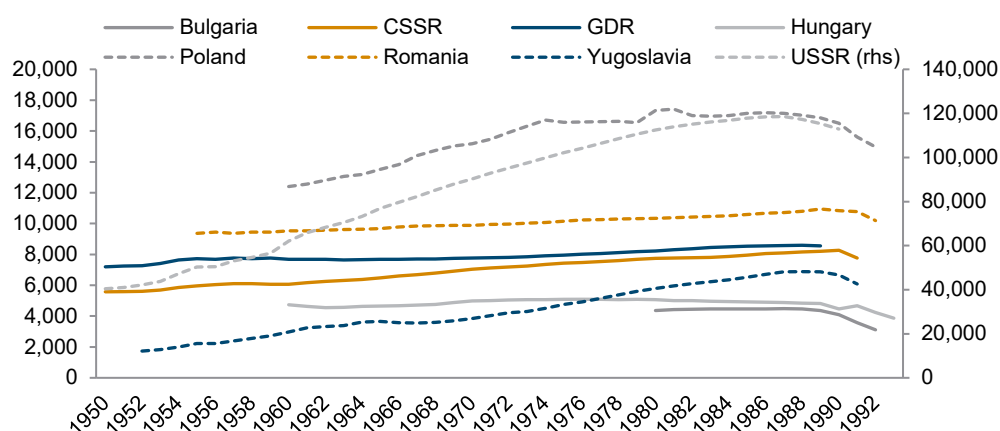
³ Yugoslavia was the only ex-socialist country in which there was some form of labour market.

3. Labour developments

3.1. STRUCTURAL SHIFT FROM AGRICULTURE TOWARDS SERVICES AND THE INFORMAL SECTOR

In all the countries discussed here, the trends in working-age population closely followed those in total population and are not presented here. On the other hand, the dynamics of employment⁴ in the state sector⁵ started diverging at some point from those of both total population and working-age population. Figure 3 shows that, in most countries, peak employment was reached in the last few years before the demise of the socialist economic system (e.g. in 1990 in Czechoslovakia, in 1989 in Romania, in 1988 in both Yugoslavia and East Germany, and in 1987 in both Bulgaria and the Soviet Union). However, the peak was already reached in 1981 in Poland and in as early as 1976 in Hungary. After that, despite still mostly growing populations, the level of employment in the state sector stabilised and then started declining.

Figure 3 / Employment, in thousands



Note: Yugoslavia and USSR: employees.

Source: wiiw COMECON Dataset.

This development primarily represented a reallocation of labour from the state towards the private sector. In all the countries surveyed, there was an informal private sector that was generally tolerated – if only to absorb excess demand and to ease the problem of shortages (Ellman 2020). The informal sector, which primarily took the form of a marketplace (e.g. in the Soviet Union), typically offered an ample supply of food, albeit often at very high prices (for more on that, see below). However, in some countries, there was also a perfectly legal private sector. For instance, in Poland, agriculture was private

⁴ Instead of 'employment', official statistics of most socialist countries used the term 'economically active population'. To avoid any confusion with the standard definition of economically active population (as the sum of employed and unemployed), here and below we use the term 'employment'.

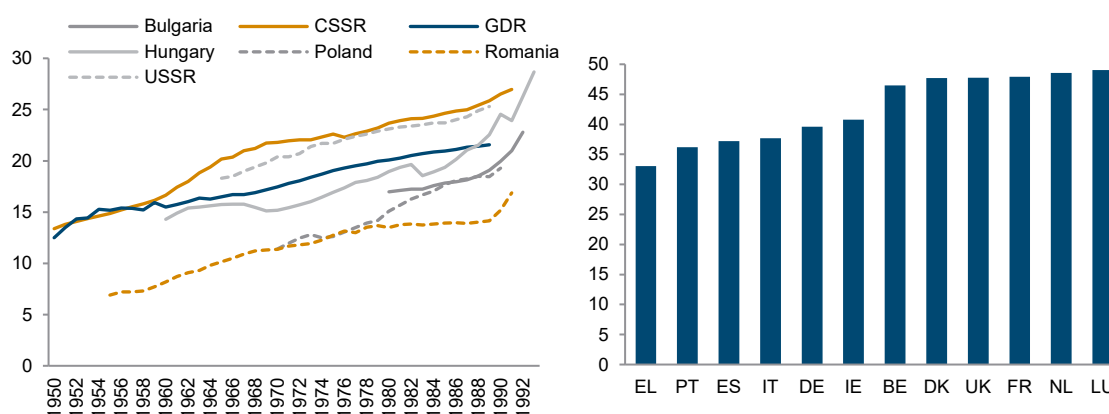
⁵ Here and below, the term 'state sector' is used in a broad sense. Specifically, it also includes cooperatives and, in the case of Yugoslavia, the socially-owned sector that dominated the economy.

throughout the entire socialist period,⁶ and private ownership was allowed in other sectors, as well, especially after 1980 under the influence of the Solidarity movement. Yugoslavia also had a sizeable private sector, with private ownership allowed (and very prevalent) in agriculture, in services and crafts (i.e. small businesses such as repair shops, personal services and artisan crafts), and in retail and hospitality (e.g. small stores, cafes and restaurants).

Another interesting development was the progressive shift in the sectoral structure of employment over the years. In all socialist countries except Yugoslavia, there was a classification of all activities into 'productive' and 'non-productive', which has its roots in Marxist ideology. For example, the net material product (NMP), which was the main measure of output in socialist economies (and the conceptual equivalent of GDP for Western countries), only included productive activities, which were those producing material goods (agriculture, industry and construction, except housing construction) as well as those needed to deliver those goods to the consumers (i.e. transportation and trade). The rest, which comprised the remaining services, was considered non-productive.

The left panel of Figure 4 shows that the share of non-productive services (i.e. housing construction, finance, science, education, culture and arts, health care and public administration) in employment gradually increased over time in all socialist countries. The increase was relatively uniform across countries, ranging from 6 percentage points (pp) in Czechoslovakia and Romania to 10 pp in the Soviet Union during the 1960-1989 period. Although a similar trend could also be observed in Western Europe, its magnitude was much greater in the socialist countries. By 1989, the employment share of non-productive services in Eastern Europe ranged between 14% in Romania and 26% in Czechoslovakia. In comparison, in Western Europe in the early 1990s, it already ranged between around 30% in Greece and nearly 50% in the more advanced countries, such as the UK, France and the Benelux countries (Figure 4, right panel).

Figure 4 / Share of 'non-productive services' in employment – Eastern Europe in the 1950-1993 period (left panel) vs. Western Europe in 1994 (right panel), in %

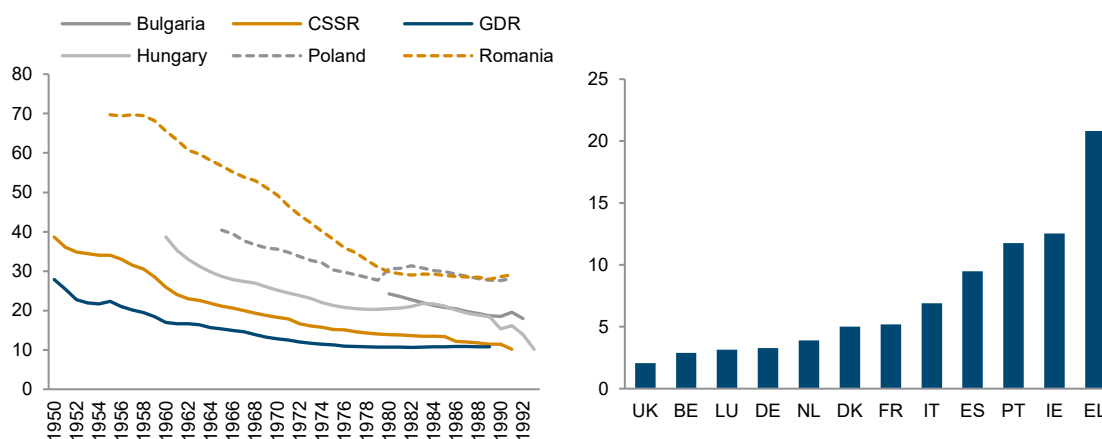


Note: Eastern Europe: share of non-productive sectors as a percentage of total employment. Non-productive sectors are housing construction, finance, science, education, culture and arts, health care and public administration. Western Europe: total services except wholesale and retail trade, transport, storage and communication; construction is not included. Sources: wiiw COMECON Dataset and Eurostat; own calculations.

⁶ The decline in official employment in Poland starting in 1981 can be partly explained by the fact that workers previously employed in the state construction sector returned *en masse* to agriculture.

At the same time, the share of agriculture declined over time (Figure 5, left panel) – most notably in Romania, where it plummeted from around 70% in the late 1950s to below 30% in the 1980s, reflecting the country's rapid industrialisation. Still, on the eve of the transition, the share of agriculture in Eastern Europe was generally much higher than in advanced West European countries (Figure 5, right panel). Even in countries with the lowest shares (i.e. East Germany and Czechoslovakia), it stood at around 10%, which was far above the levels of countries such as France and West Germany and roughly on par with Ireland and Portugal. In the countries with the highest shares (i.e. Poland and Romania), it reached nearly 30% – or much more than in Greece, the Western European country with the highest share of agriculture in employment.

Figure 5 / Share of agriculture in employment – Eastern Europe in the 1950-1993 period (left panel) vs. Western Europe in 1994 (right panel), in %



Note: Eastern Europe: share of agriculture, including forestry, as a percentage of total employment. Data on the USSR and Yugoslavia are unavailable. Western Europe: share of agriculture, including fishing, as a percentage of total employment. Sources: wiiw COMECON Dataset and Eurostat; own calculations.

The overall conclusion is that there was a shift in the structure of employment in Eastern European countries away from agriculture towards services. This is well in line with the principle known as Clark's Law, which stipulates that the share of the primary sector declines as economies develop while that of the tertiary sector increases. However, the structural shift in East European countries was not as pronounced as it was in Western economies – which is again in keeping with Clark's Law, as the Western European economies were more developed. On the one hand, the (technologically driven) advances in agricultural labour productivity were not as strong as they were in Western economies, requiring relatively more labour employed in this sector. On the other hand, while the structural change towards services in market-based Western economies primarily reflected the shift in consumer preferences (with rising incomes being disproportionately spent on services), the latter only played a secondary role in Eastern Europe, where the allocation of resources was largely dictated by the state rather than the market. However, despite their unique economic systems, the fundamental principle of development economics outlined in Clark's Law was also present in the socialist economies of Eastern Europe.

3.2. YUGOSLAVIA AS THE ONLY COUNTRY WITH UNEMPLOYMENT

While being well-established in the case of market economies, the term 'labour market' is hardly appropriate to use for most East European countries before the transition. Full employment was a stated policy goal of communist countries, and the state essentially guaranteed a job to everyone – albeit not necessarily a job one wanted and without taking into consideration the real needs of enterprises. This typically resulted in overstaffing and labour hoarding in state-/socially-owned enterprises, many of which were struggling to meet the targets set by central planners (World Bank 1993). Furthermore, the laws stipulated not only the right, but also the duty to work, which in practice meant working in the state/socialist sector. Failure to do so was generally classified as 'parasitism', and non-working individuals were forced to take up work (Kornai 1992).⁷

As a result, rather than unemployment, there was over-employment and the inefficient use of labour in most countries in East Europe (World Bank 1993). Participation rates in socialist countries were much higher than in Western economies at a similar level of development. For instance, the Soviet participation rate stood at 86.6% in 1980, compared to 66.5% in European countries that were part of the Organisation for Economic Co-operation and Development (OECD) and 70.9% in the US (Kornai 1992).⁸ The difference was mostly due to the much higher participation of women in socialist countries, which, along with other factors, contributed to women's emancipation and was clearly a positive aspect of the socialist economic system.

Yugoslavia, the only ex-socialist country in which one can say that there was a labour market to a certain degree, was also the only socialist country with officially registered unemployment. Although Yugoslav statistical yearbooks from that time only provided data on the absolute number of unemployed and not on the unemployment rate, one can calculate it by putting the number of unemployed in relation to the sum of employed and unemployed as a proxy for the labour force (such an approach was used e.g. in OECD 1976). The results of these calculations, in comparison to unemployment rates in selected Western European countries, are presented in Figure 6.

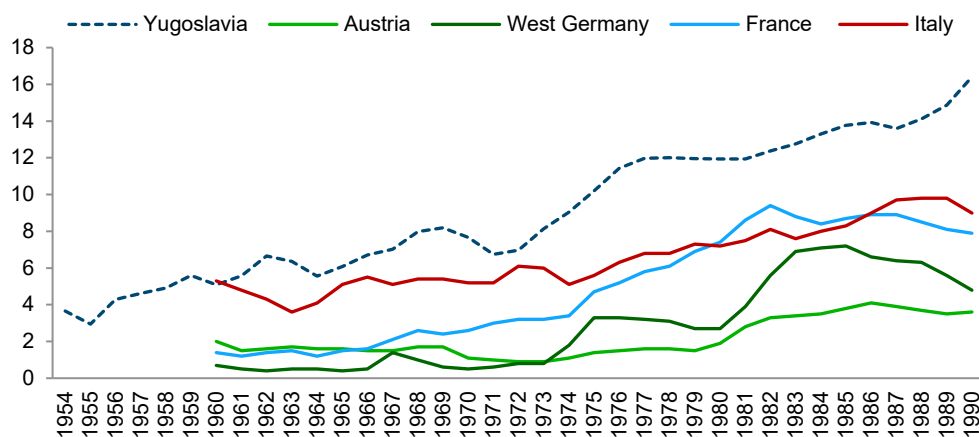
One can see that the 'unemployment rate' in Yugoslavia was rising almost without interruption throughout the entire period in question: from 3-4% in the mid-1950s to above 16% in 1990. To some extent, this mirrors the developments in Western European economies, which also recorded a notable rise in unemployment between the mid-1970s and the early 1980s. Unemployment started rising after the oil price shocks of the 1970s and the subsequent marked rise in inflation, on the one hand, and as a result of the restrictive policy response of the central banks, which suppressed economic growth, on the other. The economy of Yugoslav, which was not part of the Soviet-led Council for Mutual Economic Assistance (CMEA or COMECON) bloc, was exposed to the oil shocks similarly to the Western non-oil-producing economies and to a much greater extent than the other Eastern European countries that were part of COMECON because it could not rely on preferential arrangements for imported Soviet energy (while the Soviet Union itself, a major net energy exporter, benefited from the oil price shocks). In hindsight, this was the end of the so-called 'golden age of capitalism', marked by roughly two and a half decades of high and stable growth, full employment and relatively equal income distribution (see e.g.

⁷ For instance, Joseph Brodsky, the famous Russian poet and Nobel Prize laureate in literature who later emigrated to the US, was sentenced by the Soviet authorities in 1964 to five years of hard labour on charges of 'social parasitism' and for failing to fulfil his 'constitutional duty to work honestly for the good of the motherland'.

⁸ Overall, there is a positive correlation between the level of economic development and the participation rate.

Singh 2008; Eichengreen and Iversen 1999). The similarity in the unemployment trends in Yugoslavia and the Western European countries highlighted here underscores that, in many respects, the former's economy was following the same patterns and economic laws as those of developed capitalist economies despite the different economic, social and political systems.

Figure 6 / Unemployment rate in Yugoslavia and selected Western European countries, in %



Note: Yugoslavia: number of employed in relation to the sum of employed and unemployed.

Sources: wiiw COMECON Dataset and EU AMECO database; own calculations.

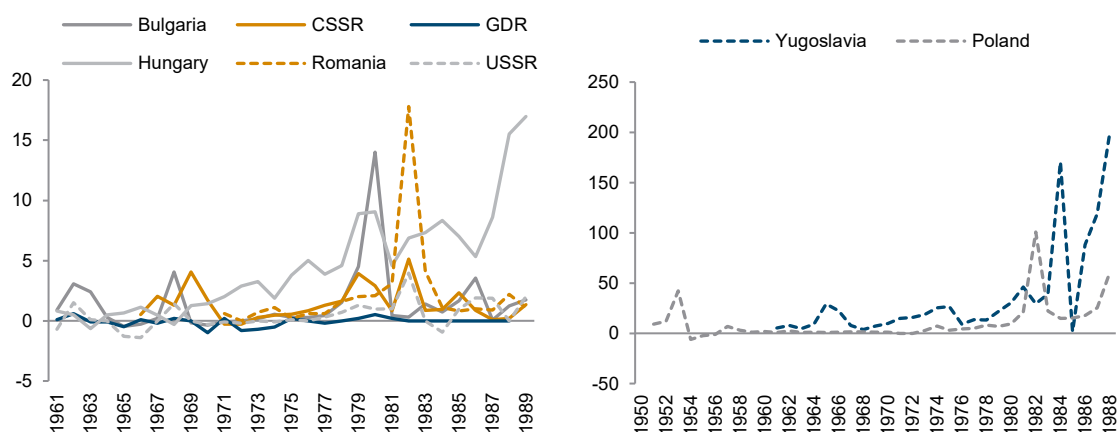
Having said that, the unemployment rate in Yugoslavia was almost always higher than in the four West European countries presented in Figure 6, and its increase was faster, particularly during the 1970s. In addition, while unemployment stabilised and even receded again by the mid-1980s in Western Europe, it continued rising in Yugoslavia. This was caused by a variety of factors, including the specific policy response to the above-mentioned macroeconomic shocks of the Yugoslav government. The country tried different stabilisation programmes in the 1980s, including a notorious International Monetary Fund (IMF) loan in 1983, which had very harsh austerity conditions aimed at limiting wages, which in turn curbed demand and hurt economic activity and employment. One of the IMF conditions included a sharp devaluation of the dinar, which flared inflation to 170% in 1984 (the highest rate the country had ever had before was 40%). Towards the end of the 1980s, the country increasingly started to monetise its fiscal deficits, which pushed inflation to more than 1,000% in 1989. This was only compounded by the mounting domestic political challenges that the country was going through that decade following the death of President Tito in 1980 and the subsequent rise in nationalism. All in all, while the unemployment rates in Yugoslavia and Italy (i.e. the West European country with the highest unemployment) were very similar back in 1950, at around 5%, the gap between the two generally increased over time and reached over 7 pp by 1990.

4. Prices and incomes

4.1. PRICE STABILITY SLOWLY UNRAVELLING

In Eastern Europe before the transition, consumer prices were largely set by the state and did not reflect the relative resource costs (World Bank 1993). In many cases, they were set artificially low, aggravating the problem of chronic shortages. The administrative nature of price-setting did not mean, however, that there was no inflation. Figure 7 shows that price stability over long periods of time was essentially only confined to East Germany. All other countries experienced notable increases in price levels even before the onset of the turbulent 1980s (for more on that, see below).

Figure 7 / Consumer price inflation, in %



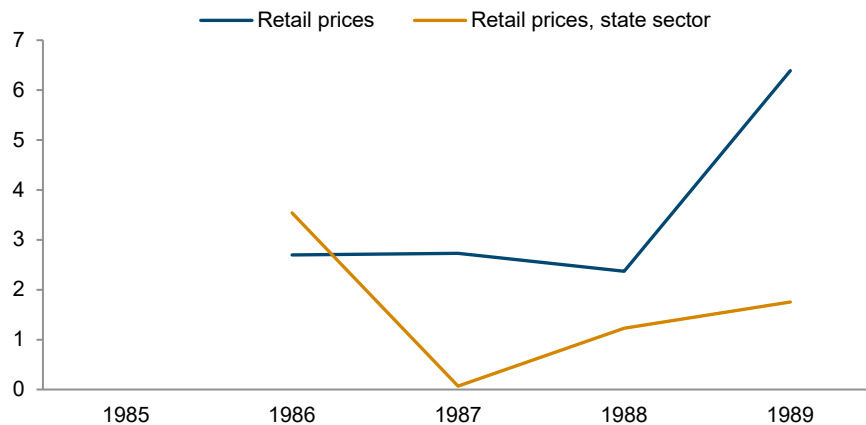
Note: Consumer prices of goods and services, except Bulgaria and USSR: retail prices (only goods) in the state sector.
Source: wiiw COMECON Dataset.

Why is that? On the one hand, administratively set prices were occasionally revised upwards. On the other hand, prices in the informal sector, which were determined by the market laws of supply and demand and were thus inherently more flexible, tended to show above-average growth. As the informal sector generally expanded over time, this increasingly affected price dynamics in the economy as a whole. Figure 8, which juxtaposes the evolution of consumer prices in the total economy versus the state sector in Bulgaria (the only country for which our data allow such a comparison), shows that the former were growing much faster during the second half of the 1980s.

Another observation to be made is that inflationary pressures picked up markedly nearly everywhere in the early 1980s – and especially in Poland and Yugoslavia. All in all, between 1965 and 1988, consumer prices increased by 37% in Czechoslovakia, 39% in Bulgaria, three times in Hungary, 15.5 times in Poland, and 800 times in Yugoslavia. This was to a large extent a consequence of exchange rate mismanagement (i.e. of the rapid devaluations of the national currencies), which flared inflation through the rising import prices despite the relatively low imports. Poland, for example, had a huge devaluation in 1982 (UPI 1982), which cut the value of the zloty against the USD in half (from 37 zloty for a US dollar to 80), which in turn

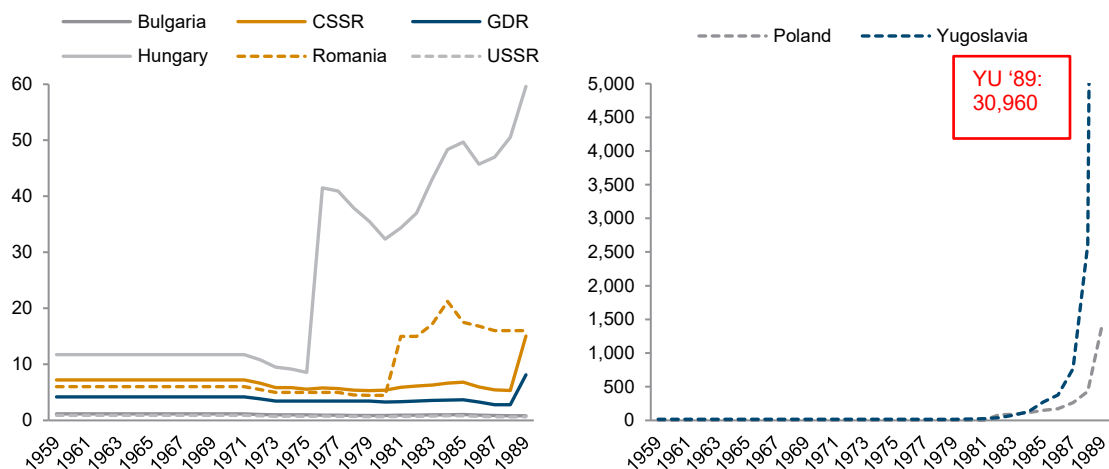
flared inflation to 100%. The Yugoslav dinar was similarly devalued on several occasions in the 1980s (Figure 9).

Figure 8 / Retail prices (goods only) in Bulgaria, year on year change in %



Source: wiiw COMECON Dataset.

Figure 9 / Nominal exchange rate (conversion factor for exports), NCU per USD



Note: Conversion factors refer to total exports; NCU is national currency unit.

Source: wiiw COMECON Dataset.

Open inflation in socialist countries would have been even higher had it not been for the chronic – and generally increasing – shortages of goods and services. Under the conditions of administratively regulated prices in the state sector, excess demand⁹ only partly translated into price increases, mainly on the free market (i.e. in the informal sector). Another consequence was increasing shortages, which gave rise to the terms ‘shortageflation’ and ‘repressed inflation’ (Ellman 2020). The extent of shortages varied a lot by country. For instance, in the mid-1970s, Romania and Poland had much more severe

⁹ Ellman (2020) argues that the roots of excess demand (e.g. in the Soviet economy) starting in 1966, which stood in sharp contrast to the austerity of the preceding decades, were the loosening of budget discipline (e.g. high military spending, increased food subsidies) and the direct financing of deficits by the central bank.

shortages than Hungary and Yugoslavia, where the role of markets (i.e. the informal sector) was markedly higher (Collier 1988).

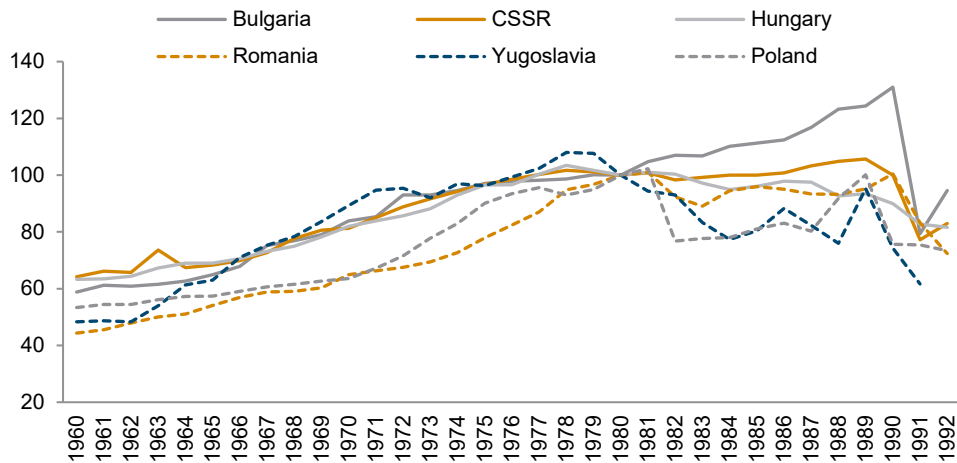
Shortageflation intensified in the 1980s and led to long queues even for the most basic food products in many countries. This was partly the consequence of artificially low food prices, financed by high – and often rising – food subsidies.¹⁰ For instance, in the Soviet Union, food subsidies were introduced in the wake of the 1965 economic reform and had risen 15 times by 1984. By the end of the 1980s, they reached around 20% of total budget spending and 19% of GNP (Collier 1988). Another root of the shortages was the distorted nature of relative prices. For example, the prices of non-food products (e.g. housing, consumer durables and services) were often overly low compared to the prices of food. In the case of Poland, this argument – which was initially advocated by Podkaminer (1988) – was later confirmed by the actual movement of relative prices after their liberalisation in the wake of the transition (Bell and Rostowski 1995).

4.2. DID THE 'GOLDEN AGE OF SOCIALISM' END AROUND 1980?

The unravelling of relative price stability in East European economies in the early 1980s coincided with a major deterioration in the dynamics of wages and incomes. Up until the late 1970s, real wages were generally growing steadily and in a largely uniform pattern across the socialist countries (Figure 10). However, the period spanning the late 1970s and early 1980s marked a major inflection point. In most countries, real wages essentially stagnated or slightly declined throughout the 1980s, while Poland and Yugoslavia recorded sharp drops during the first few years of the decade, reflecting in large part the very high inflation. In Poland, the wage decline was sharp (by 25% in 1982) but short-lived and followed by stabilisation. In Yugoslavia, it was more gradual, but its overall magnitude was greater than in Poland. After peaking in 1978, the average real wage in Yugoslavia declined for six years in a row, by a cumulative 29%, reflecting the generally poor economic situation (i.e. recession) in these years. With all the subsequent ups and downs, real wages in both Poland and Yugoslavia never recovered to the peaks recorded in 1981 and 1978, respectively. Across socialist countries, it was only in Bulgaria that real wages continued to grow at a pace similar to that of the two preceding decades.

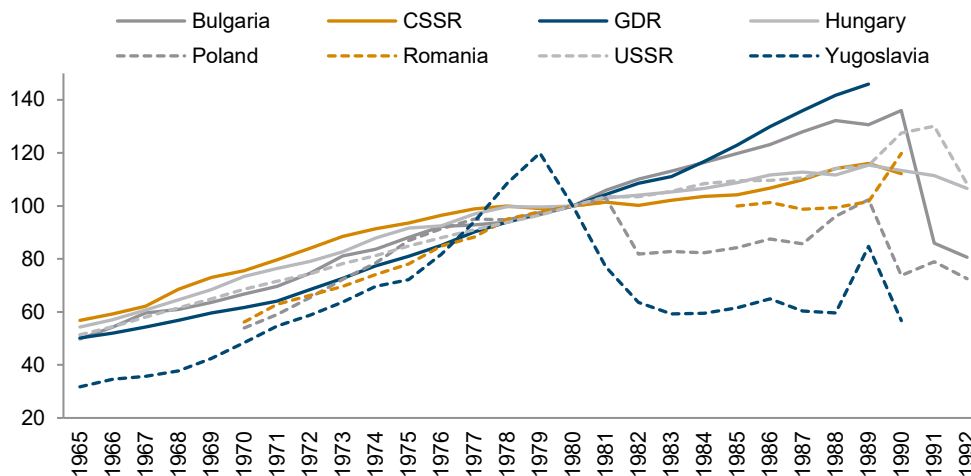
Trends in real incomes largely followed those in real wages, with Bulgaria, East Germany and the Soviet Union out-performing other countries during the 1980s (Figure 11). Incomes arguably represent a better indicator of living conditions in socialist countries than wages. Although everybody worked for a wage in these economic systems, capital incomes were next to non-existent and informal sectors were generally negligible, so wages only accounted for a part of incomes. Many services (e.g. housing, vacations and health care) were provided by the state free of charge (and households often had to apply for many of them), reflecting the general tendency of the socialist system to expand the share of collective consumption distributed in kind by the bureaucracy (Kornai 1992).

¹⁰ By contrast, the prices at the parallel/informal markets were typically overly high due to the risk involved, the spill-over effects and the 'thinness' of markets (World Bank 1993).

Figure 10 / Real net wage per employee, 1980=100

Note: Poland and Romania: socialist sector only. Data on the USSR and GDR unavailable. Bulgaria: deflated by retail prices of goods and services; Hungary: by consumer prices; Poland: by consumer price index for employee households and farmers; Romania: by consumer price index for employee families; Yugoslavia: by the cost-of-living index.

Source: wiiw COMECON Dataset.

Figure 11 / Real income per capita, 1980=100

Note: Real income includes monetary and in-kind incomes received in the form of labour remuneration, payments from public consumption funds (e.g. pensions, benefits, scholarships etc.), income from personal subsidiary farming, and other incomes used by the population to meet their material and cultural needs. CSSR: money real income per capita. Yugoslavia: money real income per capita up until 1979; starting from 1982 including payments in kind; 1980-1981 wiiw interpolation.

Source: wiiw COMECON Dataset.

What were the reasons for the stagnation of wages and incomes in East European economies during in the 1980s, which stood in sharp contrast to the relatively benign developments during the 1960s and 1970s and paved the way for the demise of the socialist system by the end of the decade? The root causes of these problems are still widely debated, with technological falling behind and the inherent low adaptability of centrally planned economies (inter alia to the requirements of flexible production technology during the 1980s) featuring among the most common explanations. For instance, Broadberry and Klein (2011) compared the industrial productivity in the UK and Czechoslovakia over time and found

that the latter underwent a severe deterioration during the 1980s. Bergson (1987) found that, already back in 1975, there was a 25-34% productivity gap between East European¹¹ and Western economies in favour of the latter. This gap was *on top* of the one that could be explained by the higher capital-to-labour ratio in the Western countries and could thus be interpreted as evidence of the superiority of their economic system. In the case of the Soviet economy, which was highly dependent on energy exports, the negative oil price shock in the mid-1980s played a crucial role, as well, exposing the vulnerabilities of the existing economic system and ultimately accelerating its demise.

The roots of the mounting problems in East European economies during the 1980s are discussed in detail in another article prepared for this project: Grieveson et al. (2024). However, the two special cases of Poland and Yugoslavia, which fared particularly poorly during the 1980s (as is strongly suggested by the above-discussed trends in wages, incomes and prices) merit particular mention.

Poland was hit by a multitude of shocks in the early 1980s: (i) a foreign debt crisis, reflecting abundant borrowing by the government during the previous decade and the sharp rise in interest rates in the Western economies in response to high inflation; (ii) related to this, subsequent exchange rate mismanagement, with the rapid devaluation in 1982 and the continuous depreciation/devaluation thereafter, which generated inflation; (iii) the effective paralysis of the economy by large-scale strikes of the Polish trade union Solidarity (*Solidarność*); and (iv) the impact of the Western sanctions imposed on Poland in response to the government's suppression of Solidarity and the imposition of martial law.

As for Yugoslavia, like Western economies, it was severely affected by the oil price shock, which resulted in a substantial current account deficit and a rapid increase in external debt. This financial strain was further exacerbated by rising interest rates on its external borrowings. In addition, the country's policy response to the shock aggravated the situation. The austerity policies under the IMF arrangement from 1983 reduced real incomes, while the rapid devaluation of the currency (which was, again, part of the arrangement) flared inflation. The dinar was continuously depreciating thereafter, and the country started increasingly resorting to monetisation of its fiscal deficits. This, in turn, led to a vicious circle of hyper-inflation and shrinking economic activity, which translated into rising unemployment throughout the 1980s.

Again, the phenomenon of shortages has to be taken into account when assessing the purchasing power of wages and incomes. For instance, Collier (1988) found that half of the on-paper purchasing power of a representative household (i.e. a family with two children) in East Germany in 1985 was lost because of the shortages, as there were not enough goods to buy despite the increase in incomes. In many countries, shortages were deepening during the 1980s, which suggests that the living standards effectively deteriorated more than the above-quoted figures on wages and incomes would suggest.

¹¹ The Soviet Union, Hungary, Poland and Yugoslavia.

5. Household consumption

5.1. DESCRIPTION OF THE DATA

This section examines consumption trends in the ex-socialist countries between 1960 and 1990 across four product categories: food, consumer goods, health and education. Due to data gaps in some series for certain years, the analysis is based on five-year averages. The data are derived from official administrative sources rather than household surveys, which are more commonly used today. The primary source is the CMEA Commission on Statistics for all countries, with the exception of Yugoslavia, for which data is provided by the Federal Statistical Office. Consequently, the data should be broadly consistent across countries, with some possible discrepancies in the case of Yugoslavia.

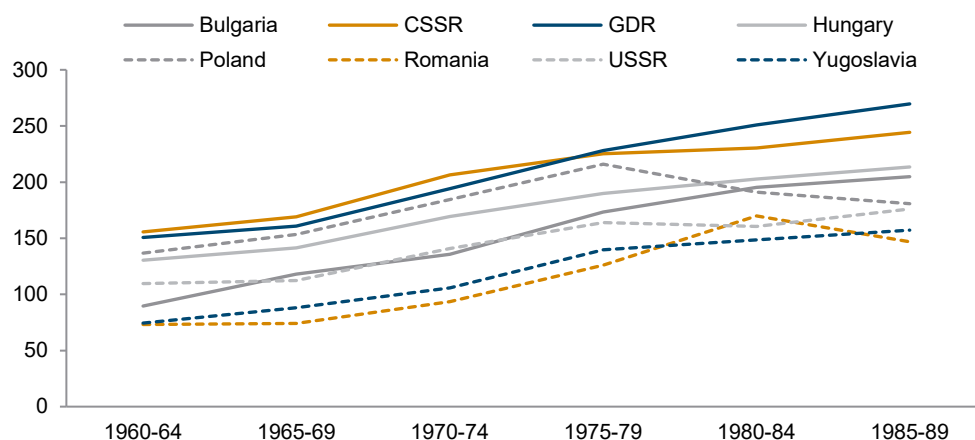
We begin with food consumption, which comprises eight categories in the wiiw COMECON Dataset: meat, fish and fish products, chicken eggs, vegetable fats, carbohydrates (bread), vegetables, potatoes, and sugar and sugar products. In the case of Yugoslavia, there are also data on milk consumption, but since the other countries do not have this, we omit it from the analysis. Some important food products are notably absent (e.g. dairy products and fruits), but even the products that are available provide some interesting insights. The dataset also includes data on alcoholic beverages, but we do not show this, as we are unsure whether they provide useful information on the quality of life under socialism.

The indicators presented will refer to the average daily consumption per person, measured in grams (or other comparable physical units). Where possible, we will draw comparisons with developed Western countries (e.g. West Germany, Austria, France and Italy). In the end, we will also calculate a measure of average daily caloric intake per person and examine its trends over the observed period.

5.2. STEADY IMPROVEMENTS IN FOOD CONSUMPTION, WITH SOME SLOWDOWN AFTER 1980

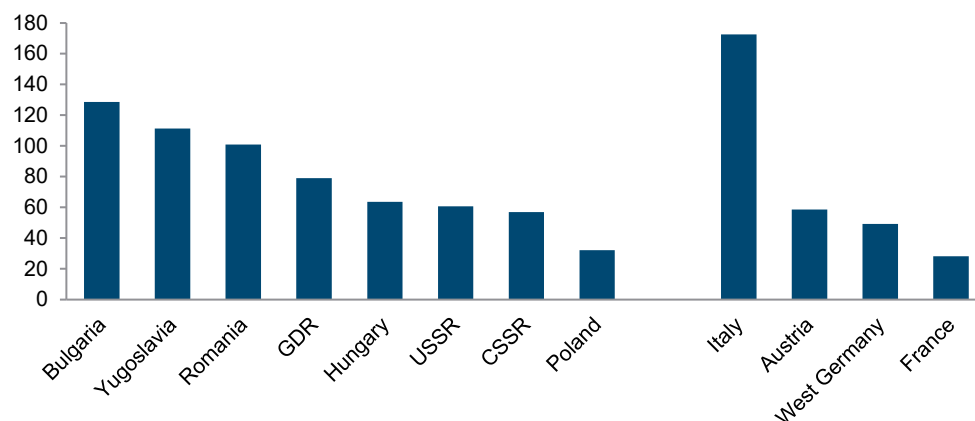
Examining meat consumption trends reveals a notable increase in per capita consumption in all the countries, indicating improvements in living standards (Figure 12). The most significant rise occurred in Bulgaria, where daily consumption of meat per capita in the 1985-1989 period was 2.3 times higher than in the 1960-1964 period. Yugoslavia and Romania also more than doubled their meat consumption during this period, while the increase ranged between 60% and 80% in Czechoslovakia, East Germany, Hungary and the Soviet Union. Poland lagged behind, with an increase of around 30%. By the 1985-1989 period, daily meat consumption per capita in all countries ranged between 150 grams per person (Romania) and 270 grams (East Germany). For comparison, in the 1960-1964 period, only Czechoslovakia and East Germany had a daily meat consumption of around 150 grams, while Romania and Yugoslavia consumed as little as 70 grams.

Despite this general improvement, several countries – particularly Yugoslavia, the Soviet Union, Poland and Romania – experienced a slowdown or even a decline in meat consumption after 1979. This trend reflects the economic difficulties of the period and the stagnation of or decline in real incomes, which were mirrored in the reduced meat consumption.

Figure 12 / Average daily consumption of meat per person between 1960 and 1989, in grams

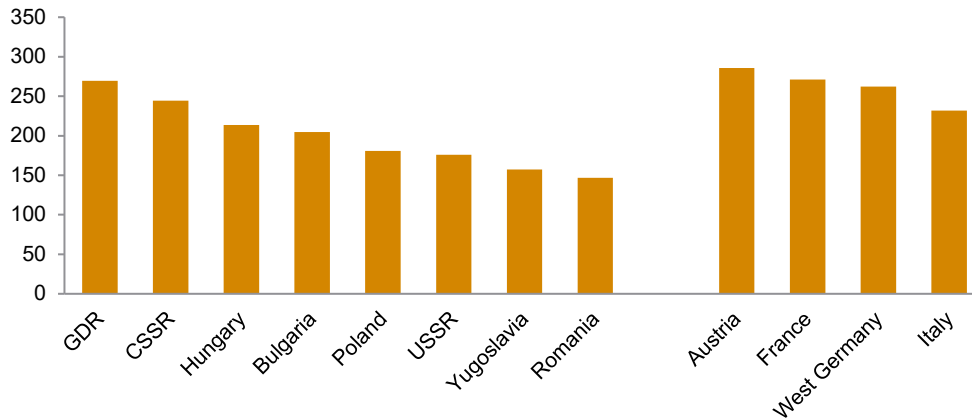
Source: wiiw COMECON Dataset.

The rise in meat consumption in the former socialist countries was generally higher than in the developed Western economies. Only Italy experienced a stronger increase during the same period (170%), while Austria, West Germany and France showed more modest growth rates, ranging between 30% and 60% (Figure 13).

Figure 13 / Increase in average daily consumption of meat per person between 1961 and 1989, in %

Note: For the Eastern European countries, the change refers to the five-year period between 1985 and 1989 and the five-year period between 1961 and 1964. For the Western European countries, the change refers the period between 1961 and 1989. Sources: wiiw COMECON Dataset for Eastern European countries; Food and Agriculture Organization of the United Nations (FAO) for Western European countries.

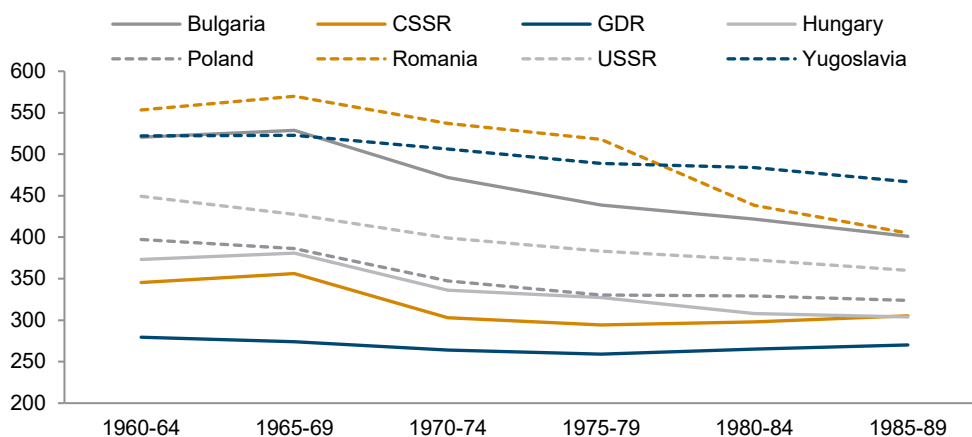
Despite these improvements, the former socialist countries still lagged behind the more developed Western European nations in terms of meat consumption. By the late 1980s, only East Germany and the Soviet Union approached comparable levels, with average daily meat consumption ranging between 240 and 270 grams per person. The other countries remained well below Italy, where the consumption stood at 230 grams (Figure 14).

Figure 14 / Average daily consumption of meat per person in 1989 (in grams)

Note: For the Eastern European countries, the data refer to the five-year period between 1985 and 1989; for the Western European countries, they refer to 1989.

Sources: wiiw COMECON Dataset for Eastern European countries; Food and Agriculture Organization of the United Nations (FAO) for Western European countries.

When it comes to bread consumption, the trend is essentially the opposite of that observed with meat. Bread consumption declined across all ex-socialist countries during the analysed period, with reductions ranging from 27% in Romania to 3% in East Germany (Figure 15). This pattern aligns with the rising living standards in these countries, as economic literature commonly notes that, as economic well-being improves, people tend to consume fewer 'inferior' goods (e.g. bread) and shift towards more 'superior' goods (e.g. meat).

Figure 15 / Average daily consumption of bread per person between 1960 and 1989, in grams

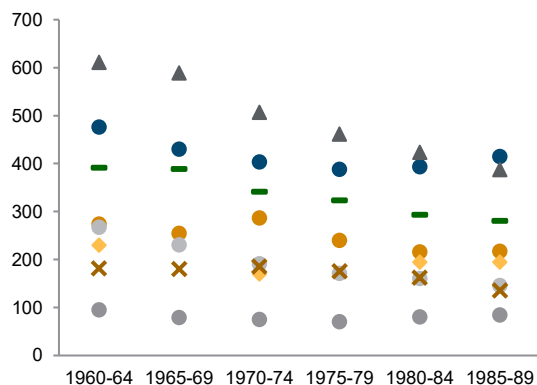
Source: wiiw COMECON Dataset.

The other food items (shown in Figure 16) generally mirror the pattern explained above; while consumption of 'superior' goods (e.g. vegetables, vegetable oils, eggs, fish, and sugar and sugar products) rises, consumption of 'inferior' goods (e.g. potatoes) declines.

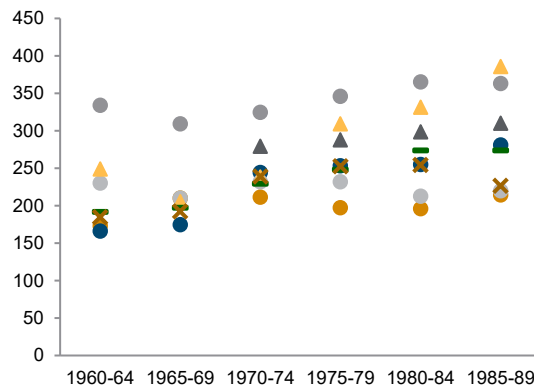
Figure 16 / Average daily consumption of other food products per person between 1960 and 1989, in grams

● Bulgaria ● CSSR ● GDR ● Hungary ▲ Poland ◆ Romania — USSR ✕ Yugoslavia

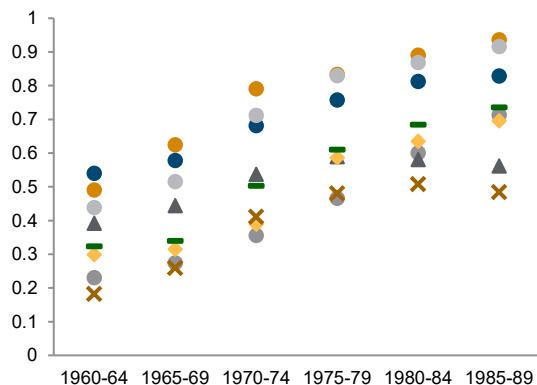
Potatoes



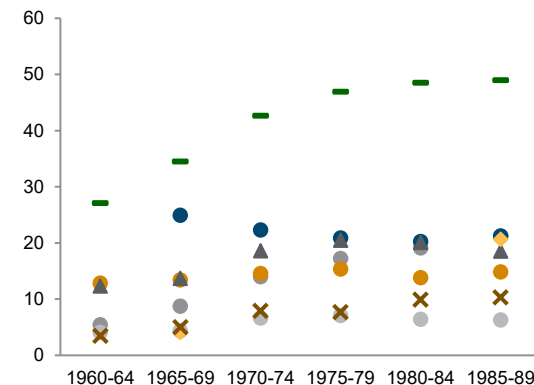
Vegetables



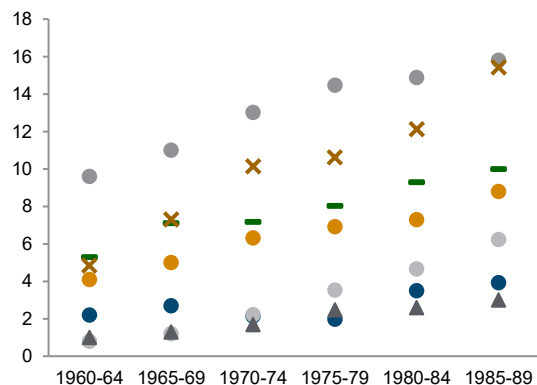
Eggs



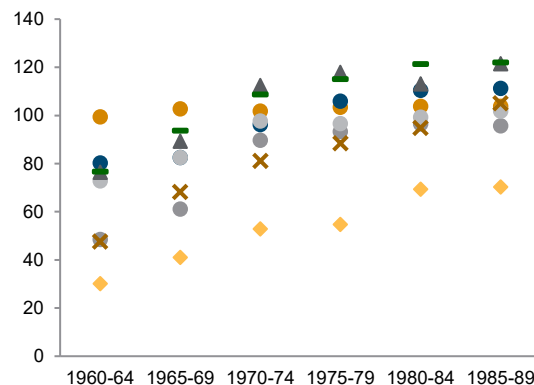
Fish and fish products



Vegetable fats



Sugar and sugar products



Notes: While eggs are in pieces per person per day, everything else is in grams.

Source: wiiw COMECON Dataset.

Next, we calculate the average daily caloric intake per person based on the average daily consumption amounts of these eight groups of products. To do this, we use the average caloric content of the respective food items, drawing this data from the U.S. Department of Agriculture's Standard References (USDA 2024). Specifically, we use the caloric values for the food items listed in Table 1 for the calculations.

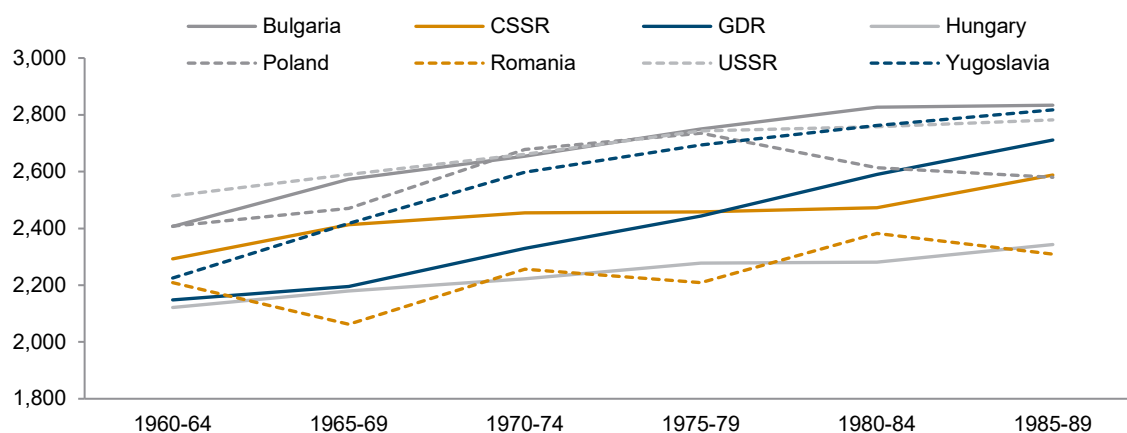
Table 1 / Caloric content of the eight groups of products

Food item	Unit	Calories per unit	Food item from USDA
Meat	kg per capita	2,920	Pork, fresh, backribs, separable lean and fat, cooked, roasted: 292 kcal/100 g
Fish and fish products	kg per capita	1,900	Fish, trout, mixed species, cooked, dry heat: 190 kcal/100 g
Chicken eggs	pieces per capita	77.5	Eggs, whole, cooked, hard-boiled: 155 kcal/100 g
Vegetable fats	kg per capita	8,840	Oil, sunflower, linoleic (less than 60%): 884 kcal/100 g
Carbohydrates (bread)	kg flour units per capita	2,670	Bread, wheat: 267 kcal/100 g
Vegetables	kg per capita	650	Vegetables, mixed, frozen, cooked, boiled, drained, without salt: 65 kcal/100 g
Potatoes	kg per capita	940	Potatoes, white, flesh and skin, baked: 94 kcal/100 g
Sugar and sugar products	kg per capita	3,870	Sugar, granulated: ~3870 kcal/kg

Source: U.S. Department of Agriculture's Standard References (USDA 2024).

Figure 17 illustrates the average daily caloric intake per person in the eight former socialist countries between 1960 and 1989. The data reveal a general upward trend everywhere, supporting previous findings that living standards improved under socialism. However, the extent of these improvements varied significantly across the countries. In Yugoslavia and East Germany, the daily caloric intake rose by 26-27% over the 30-year period. While Bulgaria experienced an 18% increase, Czechoslovakia, the Soviet Union and Hungary saw more modest gains, ranging between 11% and 13%. In contrast, Romania and Poland recorded much smaller improvements, with increases of only 5-9% over the same period.

Figure 17 / Average daily calorie intake per person between 1960 and 1989 (in kcal)



Sources: wiiw COMECON Dataset and U.S. Department of Agriculture's Standard References; own calculations.

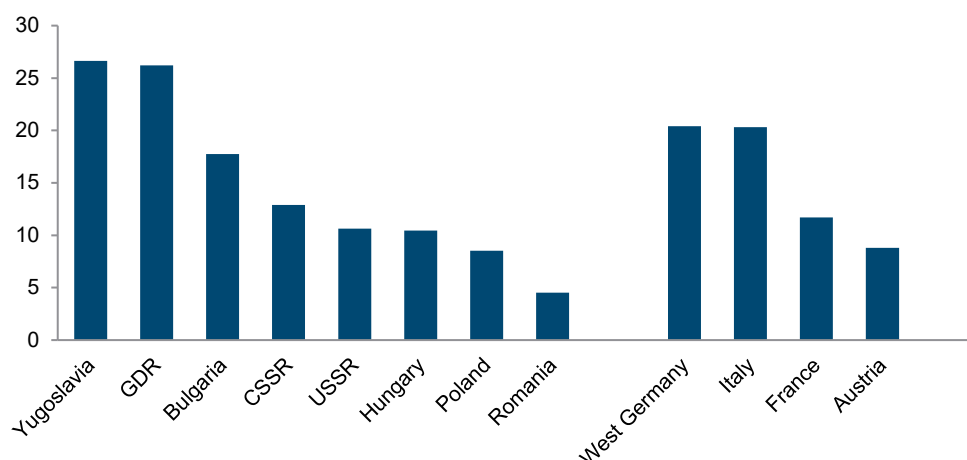
Again, the trend was not uniform throughout the entire period. As was previously observed with meat consumption, the rate of improvement in caloric intake began to slow in the 1980s. In Poland and Romania, caloric intake even declined during this decade. This again points out that the wider economic social and political challenges faced by these countries during this period were also manifesting themselves in nutritional standards.

It is useful to compare the improvements in caloric intake for the socialist countries calculated here with those observed in some Western European countries for which similar data are available from the Food and Agriculture Organization of the United Nations (FAO). While these comparisons may not be entirely consistent (due to differences in the coverage of food items and variations in the nutritional values used for calculations), they still offer valuable insights into whether the improvements in Eastern Europe align with those in Western Europe over the same period. Figure 18 illustrates this comparison, showing the increase between the five-year periods of 1960-1964 and 1985-1989 for the ex-socialist countries as well as the improvements between 1961 to 1989 for Austria, West Germany, France and Italy.

The data reveal that the improvements in caloric intake in Eastern Europe were either comparable to or exceeded those in Western Europe. Among Western European countries, West Germany and Italy experienced the largest increases, with a rise of approximately 20% over the three decades. This increase was somewhat lower than the 26-27% observed in Yugoslavia and East Germany. France and Austria saw more modest improvements, of between 9% and 12%, which were either lower than or similar to the gains in Bulgaria, Czechoslovakia, the Soviet Union, Hungary and Poland.

These findings may not be surprising given that less-developed countries often experience faster improvements after having started from a lower baseline. Nonetheless, the data underscore that the enhancements in living standards in Eastern Europe between 1960 and 1989, as measured by average caloric intake, were rather significant.

Figure 18 / Increase in average daily caloric intake between 1961 and 1989, in %



Note: Own calculations for the Eastern European countries, as explained in the text. For the Eastern European countries, the change refers to the five-year periods between 1985 and 1989 as well as 1961 and 1964. For the Western European countries, the change refers to the period between 1961 and 1989.

Sources: wiiw COMECON Dataset; U.S. Department of Agriculture's Standard References for Eastern European countries; Food and Agriculture Organization of the United Nations (FAO) for Western European countries.

To sum up the analysis so far, food consumption patterns in the ex-socialist countries between 1960 to 1989 suggest that Eastern Europe did indeed experience improvements in living conditions and well-being during this period. However, the extent of these improvements varied among countries. For example, while Yugoslavia and East Germany fared better than others, Poland and Romania lagged behind. It is also evident that the 1980s saw a slowdown in progress, with improvements stalling or even declining in some countries. Notably, the advancements in Eastern Europe during this time were either comparable to or exceeded those observed in Western Europe.

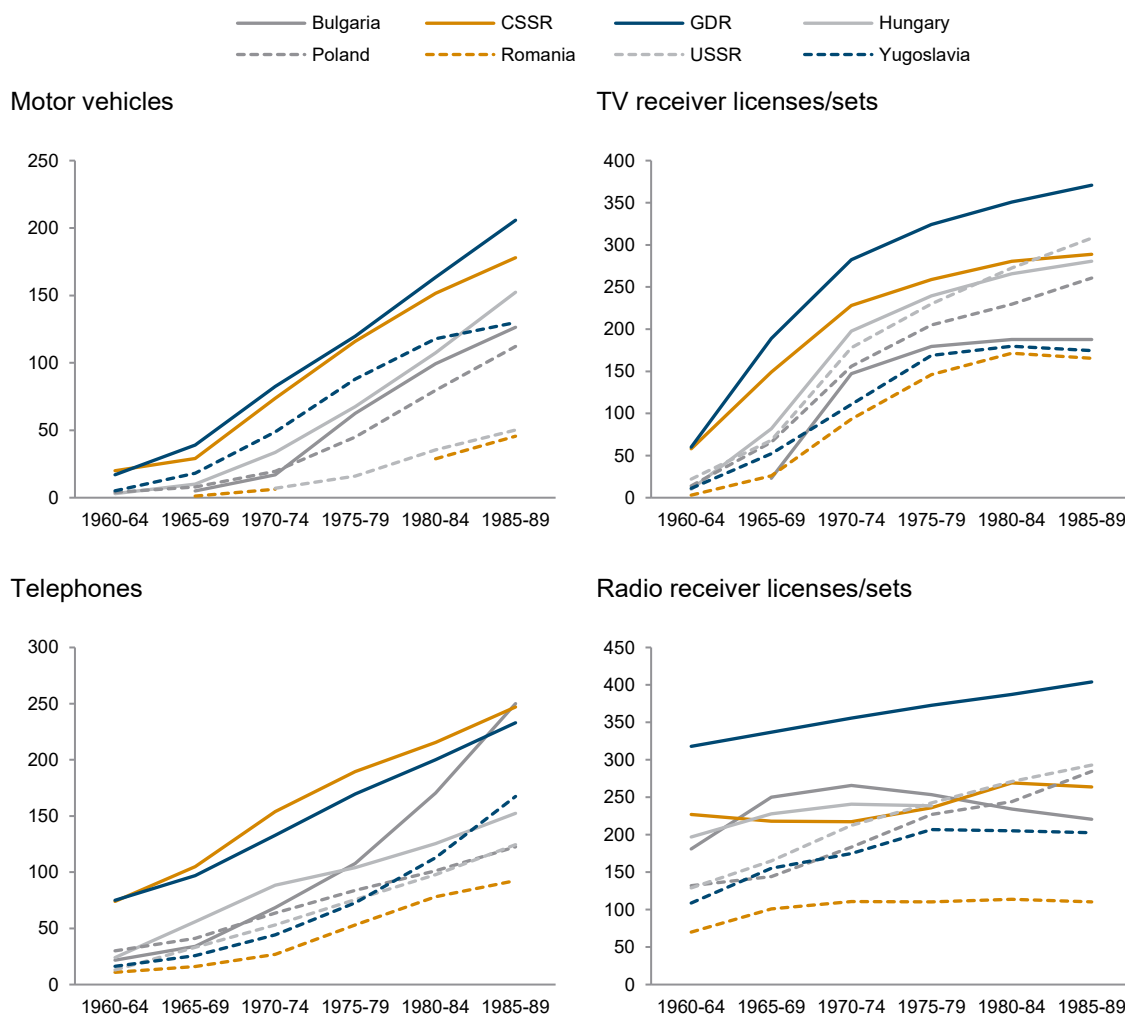
These findings provide new insights for discussions on shortages in the ex-socialist countries. While we cannot deny that shortages did occur under socialism, what we find here is that, even despite them, living conditions still continued to improve in Eastern Europe. However, the improvement largely came to a halt during the 1980s, which may be at least in part due to the fact that shortages were deepening during that time. There was also the well-known effect of 'monetary overhang', especially prevalent during the 1980s, when people simply could not spend their incomes because of shortages and, thus, were forced to save.

5.3. INCREASE IN CONSUMPTION OF GOODS OWING TO TECHNOLOGICAL DEVELOPMENTS, WITH MAJOR DIFFERENCES ACROSS COUNTRIES

The wiiw COMECON Dataset includes information on four consumer goods: motor vehicles, TV licenses/sets, telephones and radio receiver licenses/sets. The trends in these goods between 1960 and 1989 across the eight countries analysed here provides much less revealing insights compared to food consumption data (Figure 19). The four consumer goods were growing rapidly everywhere in Eastern Europe, largely because this was a period marked by rapid technological advancements, leading to a general increase in the availability of these goods worldwide. Unfortunately, comparable data for Western European countries during the same period is not available, so we cannot directly compare trends in Eastern Europe with those in Western Europe.

Nevertheless, the data still provide valuable insights into living standards and technological progress across different Eastern European countries. For instance, in the early 1960s, all the countries had relatively similar numbers of motor vehicles, with none exceeding 20 vehicles per 1,000 people. By the late 1980s, however, there was significant variation: East Germany and Czechoslovakia had nearly 200 vehicles per 1,000 people (almost one vehicle per household), while the Soviet Union and Romania had about 50 vehicles per 1,000 people. Czechoslovakia and East Germany consistently performed well across all the four consumption goods, suggesting that proximity to West Germany and a previous tradition of producing these kinds of products contributed to technological progress even under socialism. Conversely, the poorer performance of some of the other countries indicates that experiences under socialism varied significantly and that there was no 'one socialism', meaning a single socialist model that could uniformly describe the experiences of all the countries.

Figure 19 / Number of selected consumer goods between 1960 and 1989, per 1,000 of population



Source: wiiw COMECON Dataset.

5.4. IMPROVEMENTS IN HEALTH CARE, WITH MAJOR DIFFERENCES AMONG COUNTRIES

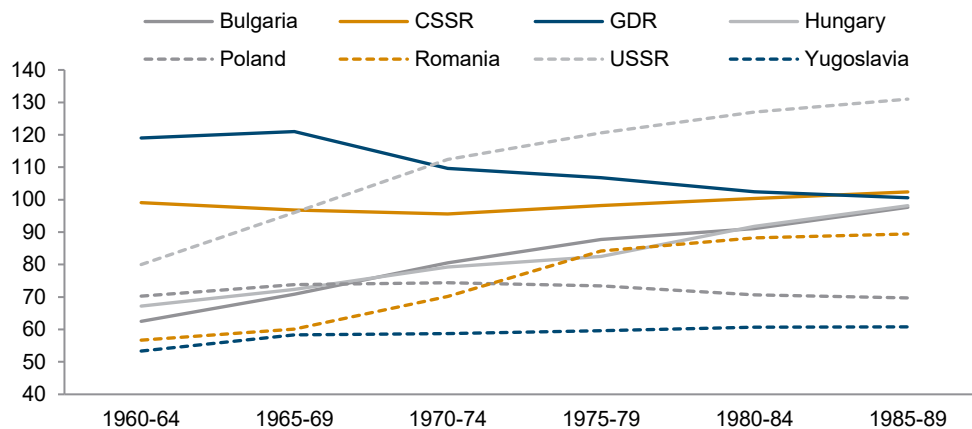
The database contains two series on consumption of health services: the number of hospital beds and the number of doctors and dentists (both per 10,000 of population). The series provide interesting insights into the quality and improvement of the healthcare systems in the region and the differences between different countries.

Examining hospital beds reveals significant differences among the countries, both in initial levels and subsequent changes. In the early 1960s, East Germany had approximately 120 hospital beds per 10,000 people, or double the number in Yugoslavia, Romania and Bulgaria and even higher than the roughly 100 beds found in Western European countries at that time. Czechoslovakia was also notable, with 100 beds per 10,000 people, while Hungary, Poland and the Soviet Union had around 70-80 beds (Figure 20).

Over the following decades, some of the countries saw increases, some decreases and some stagnations in the number of hospital beds. The Soviet Union, Romania, Bulgaria and Hungary saw increases of approximately 50-60% by the end of the 1980s, while Yugoslavia's increase was more modest, at 14%. Czechoslovakia and Poland experienced stagnation, while East Germany even saw a decline of 15%. By the end of the 1980s, the variation in hospital-bed numbers among Eastern European countries remained as pronounced as in the early 1960s, ranging from as low as 61 beds per 10,000 people in Yugoslavia to 131 beds in the Soviet Union.

These disparities warrant a detailed investigation that considers factors such as public investment, demographic changes, population ageing and disease prevalence. Nevertheless, they again underscore the significant differences among the ex-socialist countries and point out that each had a distinct experience under socialism.

Figure 20 / Number of hospital beds between 1960 and 1989, per 10,000 of population



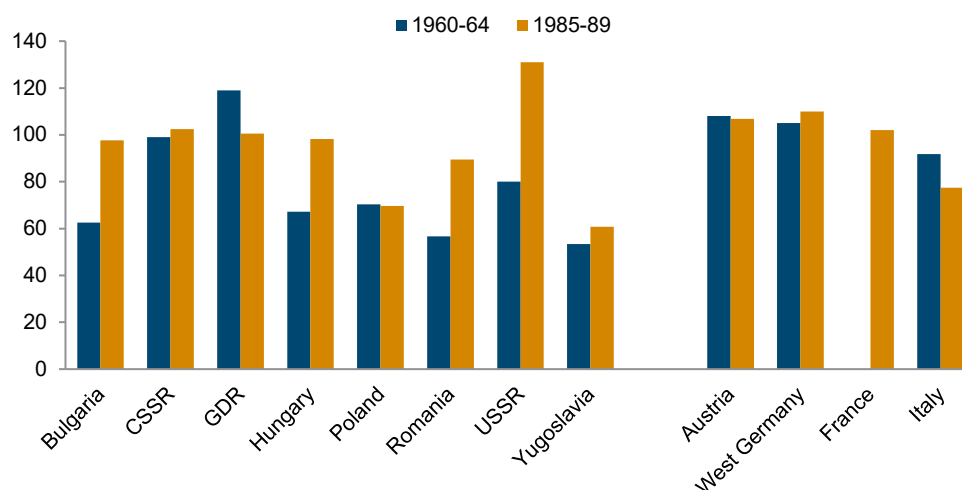
Source: wiiw COMECON Dataset.

Comparing these trends with those from Western Europe, one can see that the latter experienced relatively stable numbers of hospital beds over the three decades. In Austria, West Germany and France, the number of hospital beds consistently hovered around 100 per 10,000 people, while Italy started out slightly lower, at around 90, and declined to below 80. By the end of the 1980s, only Yugoslavia and Poland were significantly below the levels observed in Western European countries, whereas the other six countries matched the Western European averages (Figure 21).

On the other hand, the number of doctors and dentists increased steadily and significantly across Eastern Europe over these three decades, highlighting a notable improvement in health care during the socialist period. Yugoslavia saw the biggest increase, starting with as few as eight doctors and dentists per 10,000 of population in early 1960s to almost triple that number (23) by the end of 1980s. Even Romania, which saw the smallest improvement, achieved a 60% increase in the number of doctors and dentists. The other countries roughly doubled their numbers between 1960 and 1989 (Figure 22).

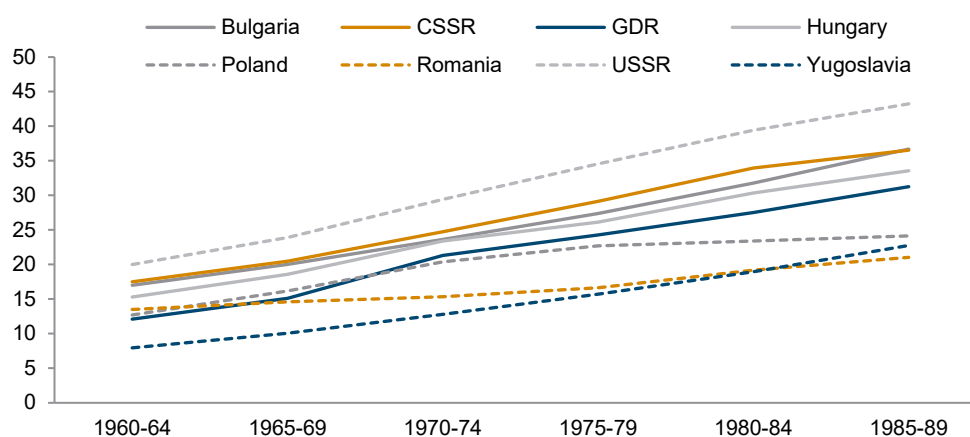
Despite the overall improvement across the region, significant differences remained among the countries. In the early 1960s, the number of doctors and dentists ranged from eight per 10,000 people in Yugoslavia to 20 in the Soviet Union. By the late 1980s, the numbers were varying from around 21 to 23 in Romania and Yugoslavia to 43 in the Soviet Union.

Figure 21 / Number of hospital beds in Eastern and Western Europe between 1960 and 1989, per 10,000 of population



Sources: wiiw COMECON Dataset for Eastern Europe, World Bank for Western Europe.

Figure 22 / Number of doctors and dentists between 1960 and 1989, per 10,000 of population



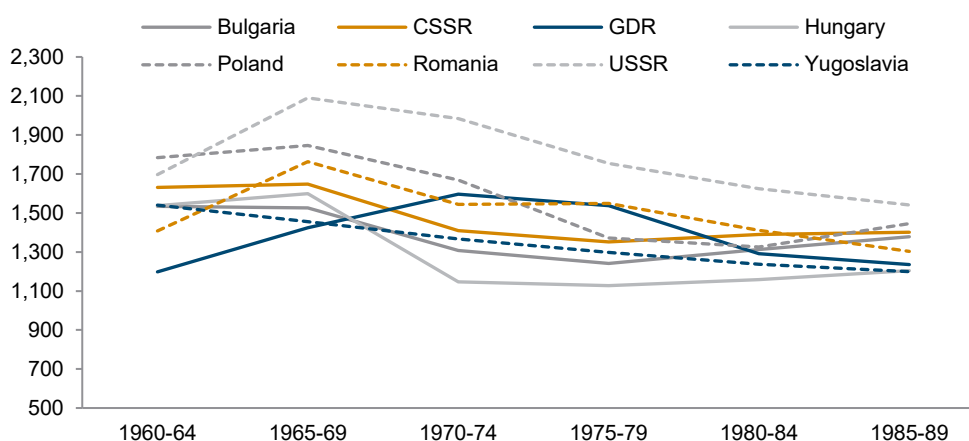
Source: wiiw COMECON Dataset.

5.5. EDUCATIONAL SERVICES – SOME IMPROVEMENTS, AND DEMOGRAPHIC CHANGES

The database also includes data on three indicators of educational services: pupils in primary and secondary schools, pupils in secondary vocational schools, and students at universities and university colleges (all per 10,000 people). These indicators shed light on broad trends in education across the ex-socialist countries from 1960 to 1989.

The number of pupils in primary and secondary schools was increasing steadily until around 1970, when it began to decline and continued to do so over the next two decades. This trend was prevalent in all the countries, though there were minor variations in the timing and extent of growth and decline (Figure 23). These dynamics largely reflected the demographic shifts occurring in the region during this period.

Figure 23 / Number of pupils in primary and secondary schools between 1960 and 1989, per 10,000 of population



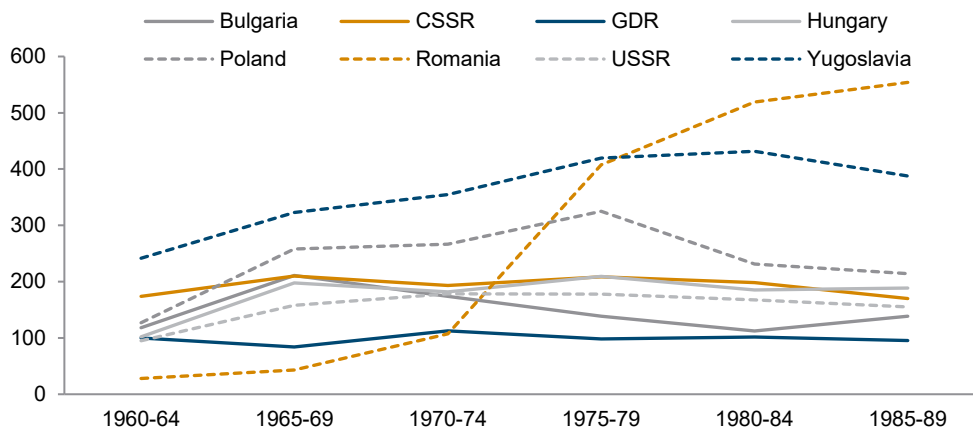
Source: wiiw COMECON Dataset.

On the other hand, the number of pupils in secondary vocational schools generally increased in most of the countries, though there were some variations. In Romania, the number surged from 28 pupils per 10,000 people in the early 1960s to 550 by the late 1980s, an increase of 20 times. Hungary, Poland, the Soviet Union and Yugoslavia also experienced substantial growth, ranging between 60% and 80%. Bulgaria showed more modest growth (17%) over the three decades, while the numbers remained stagnant in East Germany and Czechoslovakia (Figure 24). Importantly, some of the countries (e.g. Romania and Yugoslavia) had significantly higher numbers of vocational education pupils compared to the others, reflecting notable differences in educational systems under different socialist models. Additionally, some countries saw a turnaround in the mid-1970s, which may be attributed to demographic changes.

Turning to the number of students at universities and university colleges, one can see that it increased in all the countries during the analysed period. The increase was most notable in Hungary, where the number more than doubled, while it was smallest in East Germany, with a rise of only 34%. In the other six countries, the increase ranged from 60% to 90%. Growth was particularly pronounced until 1980, after which the number of students levelled off or even started to decline in some countries. As with

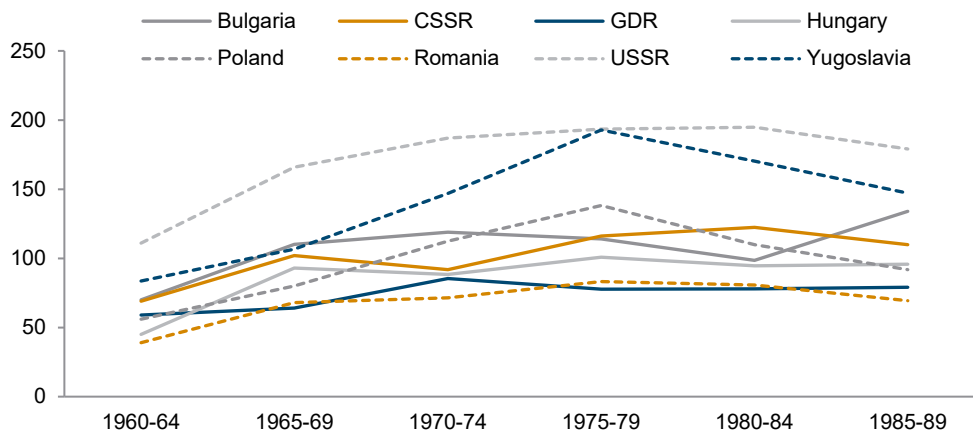
previous indicators, this turnaround was driven by demographic shifts. There were also significant differences between countries. The Soviet Union had the highest number of students, with around 180 per 10,000 inhabitants by the late 1980s. In contrast, Romania had the lowest, with just 70 students per 10,000. This clearly indicates that Romania's educational system focused more on vocational education compared to other countries in the region.

Figure 24 / Number of pupils in secondary vocational schools between 1960 and 1989, per 10,000 of population



Source: wiiw COMECON Dataset.

Figure 25 / Number of students at universities and university colleges between 1960 and 1989, per 10,000 of population



Source: wiiw COMECON Dataset.

6. Conclusions

If we could boil this article down into a single sentence, it would be that the Eastern European countries did experience general improvements in living standards during socialist times, but that the experiences of individual countries were often quite distinct and that, in general, things got worse everywhere in the 1980s.

The population trends in Eastern Europe varied significantly between 1950 and 1989, driven by a combination of declining birthrates and migration patterns. Most countries saw population growth, although East Germany experienced a decline. The birthrates dropped across the region, especially in the later years, while mortality rates remained relatively stable, leading to a slowdown in natural population growth. Yugoslavia and East Germany were particularly affected by outward migration, with significant numbers of people leaving these countries.

The structure of employment in Eastern Europe was marked by a gradual shift from agriculture to services. Employment in agriculture fell sharply, particularly in Romania, while the share of employment in services increased – both natural consequences of economic development. However, this shift was less pronounced than in Western Europe. At the same time, the role of the informal (private) sector generally increased over time, not least because the authorities tried to alleviate the problem of shortages inherent to the socialist/state sector. The problem of unemployment was largely confined to Yugoslavia, where it saw a trend increase over several decades – more so than in West European countries. Other East European countries were characterised by the problems of overstaffing and the inefficient use of labour.

Living conditions, as measured by food consumption and caloric intake, improved significantly in Eastern Europe, although progress varied across countries. Between 1960 and 1989, meat consumption rose notably, particularly in Bulgaria, Yugoslavia and Romania. The daily caloric intake also increased, with Yugoslavia and East Germany seeing the most substantial gains. In contrast, Romania and Poland experienced much smaller improvements. The 1980s marked a slowdown in these improvements, reflecting the broader economic and social challenges faced by the region during this time.

Technological progress was uneven across Eastern Europe, with significant disparities in the consumption of goods (e.g. motor vehicles, TV licenses/sets and telephones). While all countries saw an increase in the consumption of these goods due to global technological advancements, East Germany and Czechoslovakia were leading in motor vehicle ownership by the late 1980s. In contrast, Romania and the Soviet Union lagged behind. These differences reflect the varying levels of technological development under socialism and indicate that no single socialist model uniformly influenced all countries.

Health care improved significantly during socialism, but there were considerable differences in resources and outcomes across the region. The number of hospital beds and doctors increased steadily, with East Germany initially leading in hospital-bed provision in the early 1960s. By the late 1980s, the Soviet Union had the highest number of hospital beds per capita, while Yugoslavia saw the most significant

improvement in the number of doctors and dentists, tripling its count. Despite these improvements, some countries (e.g. Poland and Romania) had fewer healthcare resources compared to their socialist neighbours, pointing to distinct national experiences in healthcare development.

Education also saw marked improvements, particularly in vocational training, but demographic shifts in the 1970s and 1980s began to impact enrolment. The number of pupils in primary and secondary schools increased steadily until the 1970s, after which it began to decline in most countries. Vocational education expanded significantly in Romania and Yugoslavia, while university enrolments saw the most substantial growth in Hungary. By the late 1980s, the Soviet Union had the highest number of university students per capita, whereas Romania had the fewest, reflecting a greater emphasis on vocational training in the latter's educational system.

Although prices in East European planned economies were largely set administratively, they were generally far from being stable. Inflationary pressures picked up markedly during the 1980s, especially in Poland and Yugoslavia, which were hit by external debt crises, amplified by the oil price shock (Yugoslavia) and major political instability (Poland). As a consequence, both countries underwent steep currency devaluations, which – combined with the monetisation of their fiscal deficits – flared inflation there. This, in turn, was the main factor undermining wages, incomes and consumption during the 1980s. In most other East European countries, things took a turn for the worse during the 1980s, as well, as wages and incomes were largely stagnant and shortages were on the rise, ultimately paving the way for the demise of their economic system.

References

- Askanas, B. (1980). Die Wirtschaft der RGW-Länder und Jugoslawiens an der Jahreswende 1979/1980. wiiw Forschungsberichte/wiiw Research Reports No. 59, wiiw, Vienna.
- Bell, J. & Rostowski, J. (1995). A note on the confirmation of Podkaminer's hypothesis in post-liberalisation Poland. *Europe-Asia Studies*, 47(3), 527–530. www.jstor.org/stable/152574
- Bergson, A. (1987). Comparative productivity: The USSR, Eastern Europe and the West. *The American Economic Review*, 77(3), 342–257. www.jstor.org/stable/1804099
- Broadberry, S. & Klein, A. (2011). When and why did Eastern European economies begin to fail? Lessons from a UK/Czechoslovak productivity comparison 1921-1991. *Explorations in Economic History*, 48 (2011), 37–52. www.sciencedirect.com/science/article/abs/pii/S0014498310000434
- Collier, I. (1988). Effective purchasing power: measurements of shortage for the German Democratic Republic, Hungary, Poland, Romania and Yugoslavia. Final report to National Council for Soviet and East European Research, February.
- Eichengreen, B. & Iversen, T. (1999). Institutions and economic performance: evidence from the labour market. *Oxford Review of Economic Policy*, 15(4), 121–138.
- Ellman, M. (2020). Money, prices and payments in planned economies, in: Battilossi S., Cassis, Y. & Yago, K. (eds.). *Handbook of the History of Money and Currency*, Springer, Singapore, 473–500. https://doi.org/10.1007/978-981-13-0596-2_40
- Grieveson, R., Holzner, M. & Jovanović, B. (2024). The jockey, horse and racetrack revisited: Why did CESEE's command economies collapse? Mimeo.
- Havlik, P. (1990). Dismantling the command economy in Eastern Europe: The Vienna Institute for Comparative Economic Studies Yearbook III. London: Routledge.
- Kornai, J. (1992). The socialist system: The political economy of communism. Clarendon Press, Oxford.
- Lataianu, M. (2002). The 1966 law concerning the prohibition of abortion in Romania and its consequences: The fate of one generation. Graduate School for Social Research, Polish Academy of Sciences. www.demogr.mpg.de/papers/workshops/010623_paper25.pdf
- OECD (1976). Yugoslavia. OECD Economic Surveys, April. www.oecd-ilibrary.org/docserver/eco_surveys-yucs-1976-en.pdf
- Okólski, M. (1999). Poland's migration: growing diversity of flows and people. Working paper in the series 'Prace migracyjne', No. 29, Institute for Social Studies, University of Warsaw, November. www.migracje.uw.edu.pl/wp-content/uploads/2016/12/029.pdf
- Podkaminer, L. (1988). Disequilibrium in Poland's consumer markets: Further evidence on intermarket spillovers. *Journal of Comparative Economics*, 12(1), 43–60. www.sciencedirect.com/science/article/abs/pii/0147596788900352
- Schroeder, G. E. (1992). Soviet consumption in the 1980s – A tale of woe, in Ellman, M. & Kontorovich, V. (eds.). *The Disintegration of the Soviet Economic System*. London: Routledge.
- Schwarzhappel, M., Kochnev, A., Magdalena, F. & Bykova, A. (2024). Introducing the COMECON Dataset. www Singh, A. (2008). Historical examination of the golden age of full employment in Western Europe. MPRA Paper, No. 24304. <https://mpra.ub.uni-muenchen.de/24304/>

Statistisches Bundesamt (2012). Geburten in Deutschland – Broschüre – Ausgabe 2012, 6 January. www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Geburten/Publikationen/Downloads-Geburten/broschuere-geburten-deutschland-0120007129004.pdf?__blob=publicationFile

UPI (1982). Poland devalues its currency, January 2, 1982. United Press International (UPI) Archives, www.upi.com/Archives/1982/01/02/Poland-devlaues-its-currency/2299378795600/

USDA, Agricultural Research Service. (2024). Standard Reference (SR) 11–28. U.S. Department of Agriculture (USDA). www.ars.usda.gov/northeast-area/beltsville-md-bhnrc/beltsville-human-nutrition-research-center/methods-and-application-of-food-composition-laboratory/mafcl-site-pages/sr11-sr28/ (accessed on 6 September 2024).

wiiw (1981). THE CMEA ECONOMIES 1970-1985, A project study undertaken for THE WORLD BANK Economic Analysis and Projections Department. The Vienna Institute for International Economic Studies (wiiw).

World Bank (1993). Historically planned economies: A guide to the data, No. 12599, December, Washington D.C.

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