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1

The Old Regime and the Opening Balance of Transition

Introduction

At the beginning of 1989, Europe was a different place. The continent was dominated by the largest country on earth, which no longer exists: the Union of Soviet Socialist Republics (USSR). It embraced an economic system labelled by different names, 'command economy' being one of the more accurate. Yet seventy years earlier, the USSR had replaced another huge empire, Tsarist Russia, which had collapsed in 1917 near the end of the First World War. Later, towards the end of the Second World War, in 1944–5, a command-type economic system was imposed on several European countries – Bulgaria, Czechoslovakia, the Eastern part of Germany, Estonia, Hungary, Latvia, Lithuania, Poland and Romania.¹ Lithuania, Latvia and Estonia were annexed by the USSR and declared Soviet Republics. The remaining countries preserved varying degrees of autonomy, yet with the monopoly of political power guaranteed to local Communist parties.

This international economic and political system collapsed in 1989, a year that began with the official re-emergence of the independent 'Solidarity' trade union in Poland (led by an electrician from the Lenin Shipyards in Gdansk, Lech Walesa), and ended with the fall of the Berlin Wall. The dictatorships in Central Europe were collapsing, either peacefully or violently and, unlike his predecessors, the Soviet leader Mikhail Gorbachev decided not to send tanks to help the native Communist parties stay in power. In fact, in some cases he actively supported local liberals against hardliners. Gorbachev's aim was to reform the Soviet system, not to replace it, yet once the change gathered momentum the social and political dynamics of anti-Communist revolution turned out to be impossible to stop.

Economic transformation followed. On 12 September 1989, Poland gained the first non-Communist government for fifty years, with the office of Minister of Finance taken by one of the economic advisors of 'Solidarity', an academic from the Warsaw School of Economics, Leszek Balcerowicz. Only three months later, on 17 December 1989, a package of economic

reforms orientated towards stabilization and liberalization was introduced in the Polish parliament, and implemented on 1 January 1990 (Balcerowicz 1992). The programme became a benchmark for other post-Communist countries, which could learn from both the successes and the mistakes of one of the more fascinating experiments in economic history.

The command economy

To assess the scale of economic change that followed from the fall of Communism, one has to appreciate how different the command economy was from the market economy setting in most middle- and high-income countries around the world. While the command economy now seems to be in the remote past, its heritage was a decisive factor in the economic developments which followed the liberalization programmes during the 1990s and are still having an impact in the first decade of the twenty-first century. As in any other economic system, the command economy can be described by four basic dimensions: (1) decision-making rules, (2) the mechanism of information flows, (3) property rights, and (4) the nature of incentives and the system of goods distribution.²

In terms of decision-making, the command economy system of production was organized in a centralized, hierarchical way. Enterprises were at the lowest level, industrial conglomerates at an intermediate level and branch ministries and the central planning commission at the highest level, with final authority resting with the Political Bureau and (Politburo) the First Secretary of the Communist Party. From a formal point of view, little discretion was left to enterprises in their decisions on output mix, output level, prices, choice of trade partners, investment and finance.

This mode of economic organization could be easily contrasted with the market economy, where the choices of enterprises were based on decentralized information conveyed by market prices. In the command economy, the information on which decisions were to be based was passed on by the planning directives, which determined what the enterprise should produce, and how.

However, there were parts of the economy which remained outside the centralized control – i.e. where price information still affected the decisions of economic actors. This kind of systemic inconsistency led to tensions in the overall coordination mechanism. In particular, the margin of freedom related to households which, unlike firms, retained choice in consumption and labour supply decisions. ‘Unofficial’ economic activity was widespread. Kornai (1986) provides an interesting analysis for Hungary. Around 1980, for instance, 42 per cent of new houses were built by individual households themselves (with the help of self-employed construction workers, on many occasions working part-time, i.e. ‘moonlighters’). In general, the ‘unofficial’ economy covered a large section of services. The inconsistency between household decisions and output decisions by the planning administration

was a continual problem. One solution, obviously not very popular, was to impose restrictions on consumer decisions. In some countries, at some periods, consumption was rationed, typically by the use of coupons. Similarly, freedom of labour was restricted – for instance, where higher-education graduates were told to accept specific jobs. The most infamous example of incorporating labour into the command and planning mechanism related to the vast system of forced labour camps which played a decisive role in the economic development of the USSR, especially in huge infrastructure projects, at least until the mid-1950s. Only after death of Stalin in 1953 was the Gulag system scaled down.³

Restrictions imposed on enterprises in their decision-making were mirrored by the nature of property rights. Private ownership of capital was restricted to a limited number of licensed small-scale enterprises operating at the fringes of the economic system. Interestingly, while the overwhelming majority of enterprises were not private, their formal ownership status was unclear. It is common to refer to them as ‘state-owned enterprises’ (SOEs), reflecting the fact that key control rights remained with the state economic administration; the individual companies were effectively part of the state. Nevertheless, their formal ownership status was ill defined; the enterprises were officially declared as ‘socialist’ – i.e. owned by the people, not by the state treasury, unlike nationalized companies in other parts of the world outside the Soviet Bloc. Moreover, in the late Communist period, significant control rights were transferred to workers’ councils inside enterprises. This change was stipulated in Poland during the first period of the independent ‘Solidarity’ union (1980–1) and remained in place throughout the 1980s in spite of martial law and political repression. Self-governance was also extended to enterprises in Hungary, and in the USSR in the late 1980s, under Gorbachev. Those solutions drew from the experience of Yugoslavia, a country that remained outside the Soviet Bloc and introduced the self-governance model first. In economic theory, the old name of a Roman province (Illyria) was used to label the self-governance model of enterprise as ‘Illyrian’: it was first described by Ward (1958) in his seminal paper in the *American Economic Review*. Agriculture was another sector with a significant margin of private producers. In Poland, that private margin was restored when a short period of collectivization was followed by the concessions made during the wave of post-Stalinist liberalization after 1956.

Decision-making rules, information channels and property rights alone cannot make an economic system work without being supplemented by a coherent set of *incentives* for economic actors. While the founding father of Communism, Karl Marx, envisaged a world without money, in practice the system had to rely on monetary income as a main channel determining the access to goods and therefore their final distribution. Wage income and social transfers remained key categories of income, with property income and (official) income from self-employment playing a much smaller role,

when compared with the high- and middle-income market economies (Milanovic 1998).

Yet, while the role of monetary incentives was dominant, it was still restricted and was complemented by other distribution mechanisms. First, a combination of administrative prices and free-demand decisions by consumers resulted in market disequilibria and shortages. The latter implied that money income was a necessity but not a sufficient condition for acquiring goods. For that reason, other distribution mechanisms operated, starting with queuing and – possibly more important – networking and corruption. Payments in kind for workers were also widespread. Enterprises functioned not only as production units but also as providers of services for workers, including housing, child care, holidays and recreational facilities and health care (Rein, Friedman and Wörgötter 1997). To provide access to these mainly via work was functional from the system point of view, as it gave incentives for higher work participation; indeed, activity rates in all these countries were high.

While discussing the incentive system, one has also to take into account the duality which was the command economy's defining feature. The administrative hierarchy (all the way up from enterprises to the central planning commission) was always shadowed by the Communist party structure, where party officials were expected to act as (supposedly highly motivated) controllers. This vast monitoring system was meant to overcome motivational problems. The party controllers were granted important privileges and offered special access to housing, cars and luxury goods via exclusive distribution channels (vouchers, special shops). According to the official blueprint, all this gratification was only supplementary – the system was supposed to rely heavily on the ideological motivation of the party controllers acting in the 'social interest', i.e. overcoming the 'petty egoism' and 'indifference' of economic actors at various levels of the production process. Until the mid-1950s (the death of Stalin), ideology was always complemented not only by material incentives but also by a reign of terror, and in the case of party apparatchiks it is difficult to disentangle genuine enthusiasm from the disciplining effect of fear: psychologically the latter has as strong a positive effect as the former, as self-delusion is part of human nature. Regardless of the weight we may attach to those two components, it appears that, with time, the appeal of ideology faded away, the era of overwhelming terror ceased, and material incentives to match aspirations proved difficult to deliver. The necessary minimum social support base began to shrink.

What went wrong?

Shortages and disequilibria resulted in deadweight cost and inefficiency. Nevertheless, the command economy survived for seventy years in Europe.⁴ The system did offer basic economic stability for the population: while on

the one hand freedom of labour was restricted, on the other there was no unemployment. Standards of living were not improving fast, yet extreme poverty was eradicated. The premium for education (as, say, measured by the difference between non-manual and manual wages) was minimal, but more education was offered than in countries at a comparable level of income *per capita* (Jackman and Rutkowski 1994; Milanovic 1998; Mickiewicz and Bell 2000). From the political perspective, while episodes of mass repression reoccurred (the Soviet invasion of Hungary in 1956 and of Czechoslovakia in 1968, martial law in Poland in 1982), in most places and for most of the time after the mid-1950s the level of political repression in Communist countries was relatively low, especially when compared with many dictatorships in Latin America, Asia and Africa at that time. The interesting question for both economic and political historians is thus what went wrong, and why the system collapsed so dramatically.

It was easier to see the early signs of a crisis from within than for outside observers. More than one generation of Western scholars took the official Soviet growth statistics seriously, and many were impressed with USSR achievements. After all, it was both a military superpower and the only country able to compete successfully with the US in the space programme. But not everybody was misled. A group of UK based scholars published a book in 1982 with the novel title, 'Crisis in the East European Economy' (Drewnowski 1982): 'There is a spectre haunting Eastern Europe: the spectre of zero growth' the opening sentence by Peter Wiles reads, and he provides a catalogue of likely and unlikely factors that were contributing to economic slowdown and decline (Wiles 1982). Much of that discussion has stood the test of time. Following and expanding it (with the benefit of hindsight), one can distinguish between two interrelated clusters of explanations:

- (1) *Systemic* features of the command economy, which were present from the very beginning but whose effects became negative only when they interacted with changing external circumstances;
- (2) *Non-economic* factors.

The first cluster of factors – i.e. the systemic features of the command economy that contributed to economic slowdown – related to inadequate incentives, semi-autarky, structural inertia and the priority that was given to military expenditures. We shall discuss these in turn.

Incentives

The issue of incentives has been at the centre of the debate on economic efficiency under a command economy. On one hand, Oskar Lange (1936) argued that the efficient prices equivalent to the perfect competition

solution might be calculated by the planners. It would mean that along the informational dimension the command economy system could match or even surpass the market economy system.⁵ Von Mises' reply (1966 [1949]) was that information alone could not be a sufficient condition for efficiency; it would have to be matched by the two parallel dimensions of private property rights and incentives conditioned by them:

They want to abolish private control of the means of production, market exchange, market prices, and competition. But at the same time they want to organize the socialist utopia in such a way that people could act as *if* these things were still present. They want people to play market as children play war, railroad, or school. They do not comprehend how such childish play differs from the real thing it tries to imitate. (Von Mises 1966 [1949]: 706–7, emphasis in the original; see also Temkin 1989 for an overview of this discussion.)

Nevertheless, the problem of incentives was recognized more by central planners than by Marxist economists, and alternative bundles of ideology, intimidation and material incentives were applied to overcome it. In the long run, only the latter proved to have some lasting effect. Even so, the fundamental problem remained: how to shape the objective function on the level of individual economic actors in an efficient way. Rewards for the fulfilment of the plan were relatively simple to implement, but these left many issues outstanding. The plan could not cover all contingent states of the world: it had to remain an incomplete contract. In particular, incentives play a critical role in the process of innovation, which is least easy to organize within the framework of a centralized economic administration. By definition, innovation cannot be incorporated into an economic plan. Inadequacy of the innovation process became a serious constraint in the later phase of the socialist development – with both the changing nature of the economic environment (the growth of information technologies, etc.) and the higher level of GDP and therefore more sophisticated developmental needs. The paradoxical nature of the science and technology system under the command economy relates to the fact that on the one hand it was orientated towards the needs of enterprises, yet on the other innovation activities had to be incorporated into the economic administration and planning system and therefore remained organized within branch research institutes attached to the corresponding branch ministries, with few cross-section links and inadequate diffusion of technology into products:

As technology is primarily a firm-specific asset, the consequence of this systemic defect was that the links between R&D and production were generally weak. (Radosevic 1999: 283–4)

Semi-autarky

Internationalization may be a viable development strategy, alternative to domestically originated innovation. Foreign trade and investment are the key channels for the transfer of knowledge and technology. After the Second World War, internationalization became one of the key factors of global development, yet the logic of planning administration prevented the centrally planned economies (CPEs) from participating fully in the benefits. The openness of these countries remained low, while it grew rapidly elsewhere. Figure 1.1 illustrates this, using the exports/GDP ratio for 1990,⁶ i.e. for the initial point of the transition programmes. As larger economies tend to trade less, the openness (vertical axis) is plotted against the size of GDP (horizontal axis), showing a typical negative correlation. In the lower left corner of the graph we see a group of post-Communist economies with very little trade (Albania, Macedonia, Mongolia). The contrast with the outside world would be even more dramatic if it were not for the fact that some former Soviet republics were very much dependent on intra-USSR trade (Kazakhstan, Moldova), which became external trade on the breakdown of the Soviet Union. For Russia, in 1990, 64.4 per cent of its foreign trade was within the former Soviet Union (FSU), and only 35.6 per cent with other countries

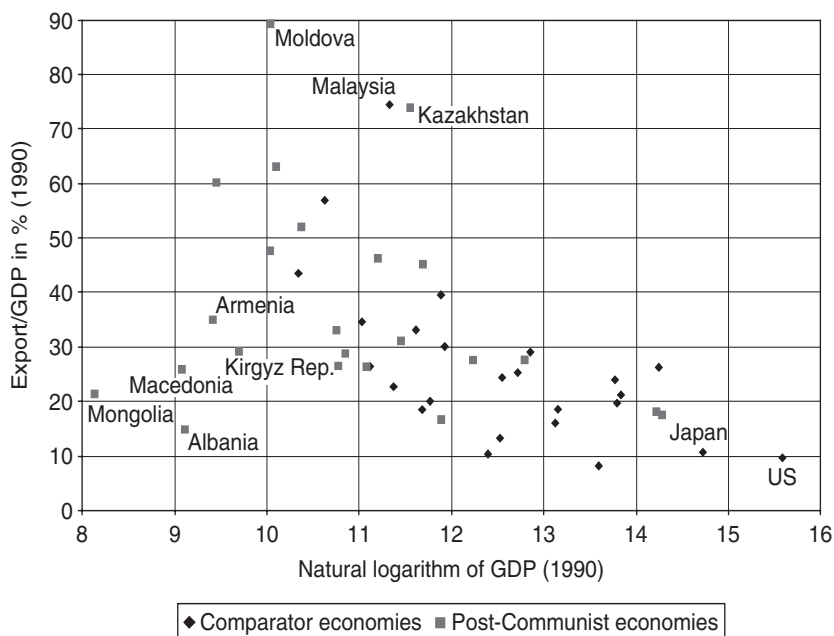


Figure 1.1 Size of the economy and openness

Source: Computed on the basis of World Bank data.

(Smith 1996). Generally, if CPEs traded, they traded mostly with themselves – i.e. within the Soviet Bloc. Later on, the capacity to re-orient the trade towards the EU and other developed market economies became an important factor determining economic success.

Semi-autarky was partly a policy choice and partly a systemic feature of the planning system, for which the outside world was an alien, uncontrollable cause of disruption. It was a source for the residual resources that had to be imported to close the material balances of the plan. Exports were generated to pay for them. A related problem was that suitable exports were difficult to find. In 1983, 70 per cent of Soviet exports to the hard currency area were in the form of energy exports, with four-fifths being oil (Schroeder 1986).

Structural inertia

The third related systemic feature, with negative effects increasing over time (i.e. in the later stages of development), was structural inertia. To understand the roots of the problem, one has to look at how the planning mechanism worked in practice. Economic plans were constructed for long periods (five years, sometimes also for three years or seven years), yet in practice the basic tool used in economic administration was the *detailed annual plan*. The planning process involved three stages: plan development, plan implementation and feedback. The first of those originated with general guidelines provided by the Central Committee of the Party (Politburo). Those directives were then taken into account by the Central Planning Commission, responsible for establishing provisional production targets. Those production targets (the production plan) had to be linked directly with plans for supplies, employment and transport, and accompanied by the investment plan, the financial plan, the income plan (which decided the wages and other income of the population), the corresponding consumption plan and the trade plan, including both domestic and foreign exchange of commodities. As soon as the draft version of the production plan was ready it was sent down through the corresponding branch ministries and industrial associations to individual enterprises for comment and confirmation of requested inputs.

Next, the details were sent back up the same administrative ladder to the Planning Commission, which had to balance all key inputs and outputs to make the plan consistent. Once that was achieved, the implied production targets were again sent down to individual enterprises as binding law, which became the basis for the subsequent year's production (Kurowski 1991; Gregory and Stuart 1995). Figure 1.2 illustrates the flow of information during the construction of the plan.

The formulation of the plan was thus a time-consuming and complex process with very high informational requirements. Moreover, it implied bargaining between the various levels of the economic administration, where the position of enterprises *vis-à-vis* the higher levels of economic administration was strengthened by informational asymmetry (only enterprise managers had full knowledge of the real technological requirements).

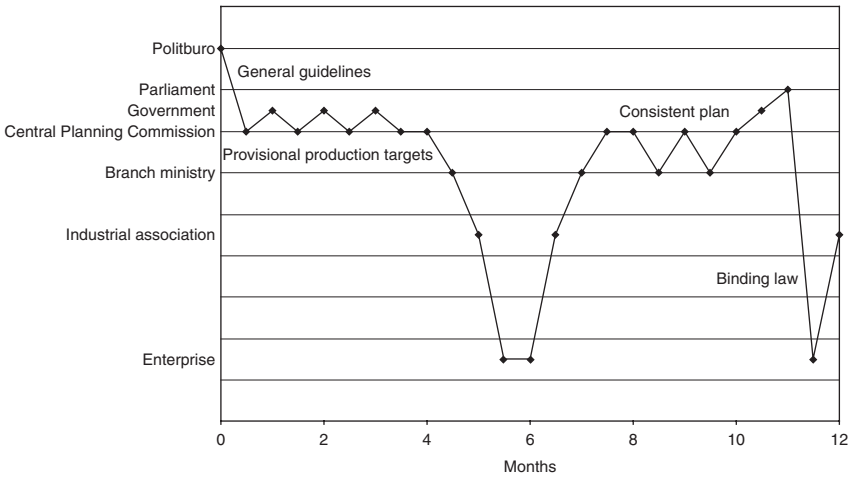


Figure 1.2 Construction of the annual plan: flow of information
 Source: Adapted with some modifications from Kurowski (1991).

From the point of view of the enterprise it was beneficial to have lower production targets, for two reasons. First, some slack in production targets was always beneficial, as supplies of raw materials and intermediate products beyond technological requirements might help to save on effort and minimize a risk of production disruption. Secondly, declaring ambitious production was a strategy which entailed the risk for enterprise managers that this year's achievements could be transformed into higher expectations from the planners next year.⁷ In response to the expected slack, rewards were typically linked to over-ambitious production targets. Yet, in response, there was more pressure from enterprises to increase the target amount of supplies and resources, including labour and capital. A repetitive bargaining game resulted between enterprises and the higher levels of the planning administration. The pressure on supplies, matched with the aim of the planning authorities to maximize production and price controls, led to chronic shortages. The complexity of the planning mechanism implied that frequently the plan arrived late and enterprises had to rely on provisional figures, with a risk of subsequent disruption. And even if the plan was ready, the logic of the planning mechanism required that much of it was in fact based on an assessment which had a one-year lag built in to it, as this is how long it took to transform the initial data into a coherent plan (see Figure 1.2). In practice:

The plan for year t was, in effect, little more than a revision and update of the plan for year $t-1$... Although it simplified the planning process, it built in considerable inflexibility. (Gregory and Stuart 1995: 275)

Structural change and innovation were the disrupting factors which complicated the task of planning even more. The interests of all involved, including the enterprises, were to expand their own production, with no place left for new entrants (and no exit mechanism). New large firms emerged as a result of centralized investment projects, but even those were primarily oriented towards filling the existing gaps in the material balances of the plan.

In the initial phase of development, growth in the Soviet Bloc was fuelled by extensive methods. The increment of working-age population was high and the under-employed labour force in agriculture was transferred to industry. Similarly, production of raw materials and fuels had been expanding. All that changed in the later phase, as it did outside the Soviet Bloc. However, the structural inertia of the system prevented it from adjusting efficiently:

The extreme sensitivity of the Soviet economy to changes... is due to its extreme rigidity, including the inability to adjust the system of investment to variations in the rate of growth of the supply of labour and capital...

In other words, the Soviet economy has been able to grow without great difficulty while it was sufficient to produce no matter what and no matter how: labour was plentiful and even waste of capital looked like growth. (Sirc 1981: 74–6)

Thus, the system worked satisfactorily as long as the structures evolved in a predictable way, especially during the early industrialization phase. Problems arose when there was a sudden shift in the relative availability of resources, resulting in a need to switch to new technologies, which could cause an upheaval in the whole complex network of planning balances. An example of such an external shock came at the beginning of the 1970s, and again after 1979, with a dramatic increase in international oil and energy prices. While for the most of the developed economies this implied a long period of structural adjustment, the Communist leaders declared the oil crises another sign of the decline of the capitalist system, with no implications for the socialist world. The command economies of Central and Eastern Europe carried on along the old path of energy-intensive development, expanding old technologies, and importing production lines which were just becoming obsolete in the West because of the shift in cost structures. Over time, the gap widened, leaving the command economies with the highest level of energy intensity of production. In 1960, average *per capita* energy consumption in high-income market economies was on average around 3,000kg of oil-equivalent per year, around 2,000 in CPEs and around 200kg in market economies at a similar level of income *per capita* (middle-income countries). The latter group is more relevant for comparison, as generally the production/energy ratio displays a hump-shaped relationship with income *per capita* – for the highest level of income, the energy intensity of consumption increases, counterbalancing the effect of the higher efficiency of use, as exemplified by the US.

Between 1960 and 1980, the rate of growth of energy consumption in the CPE group was visibly faster than in market economies. Moreover, during the 1980s, while the energy consumption in the high-income economies oscillated around the same level, it continued to grow in the CPE group. By the end of the 1980s, it was similar in both groups, approaching 5,000 kg. Yet, in the relevant comparator group of the middle-income market economy, it was only around 1,000 kg – i.e. five times lower (Tolba and El-Kholy 1992: 376).

Figure 1.3 illustrates the closing balance of the command economy period.⁸ It is clear from Figure 1.3 that at the beginning of the 1990s the energy efficiency of production was uniformly low in the (post)-Communist economies. The most dramatic cases relate to the former Soviet republics, including the Russian Federation. Similar figures can be obtained for the steel intensity of GDP (see Winiecki 1987, 2002; Winiecki and Winiecki 1992).

The negative economic impact of the growing absorption of energy by the domestic sector was amplified by opportunity costs. A low level of exports to developed market economies combined with the necessity of imports from that area for modernization made the marginal impact of the decrease in exports particularly harmful. Expanding domestic consumption of energy

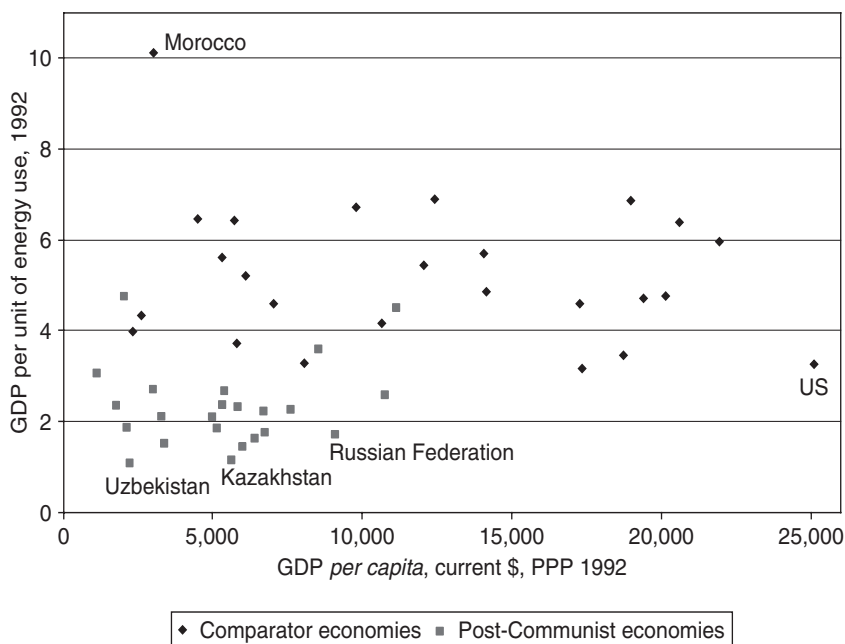


Figure 1.3 Income per capita and energy efficiency of production

Source: World Bank, *World Development*.

combined with dependence on energy, and more generally on commodity exports to the West, presented a difficult trade-off for the central planners. In the late 1980s, the negative effects were amplified by two additional factors. First, reckless extraction policies led to depletion of some of the most easily available oil pools and ore deposits (Gros and Steinherr 2004). In particular, production of crude oil in Russia levelled out, oscillating around 10,000 barrels a day (Gregory and Stuart 1995). Second, the international price of a barrel of oil was slashed by 60 per cent, going down from \$29.3 in 1985 to \$12.1 in 1986 (constant 1980 \$US) and remaining at a low level until the end of the decade, which turned out to be the last in the history of the CPEs (Tolba and El-Kholy 1992).

The high energy intensity of GDP resulted both from cost inefficiencies and from distorted production structures. The CPEs were characterized by a high share of steel and heavy industry in the industry sector, and by a high share of the latter in the whole economy. This may be typical for some export-driven economies, but the CPEs were not of this kind, as already discussed. They were rather faced with structural distortion (Mickiewicz 2003). Figure 1.4 illustrates the point.

In Figure 1.4, one may note the three post-Communist countries with a particularly high share of industry in employment: Romania, Russia and Ukraine. All three subsequently faced a particularly difficult transition.

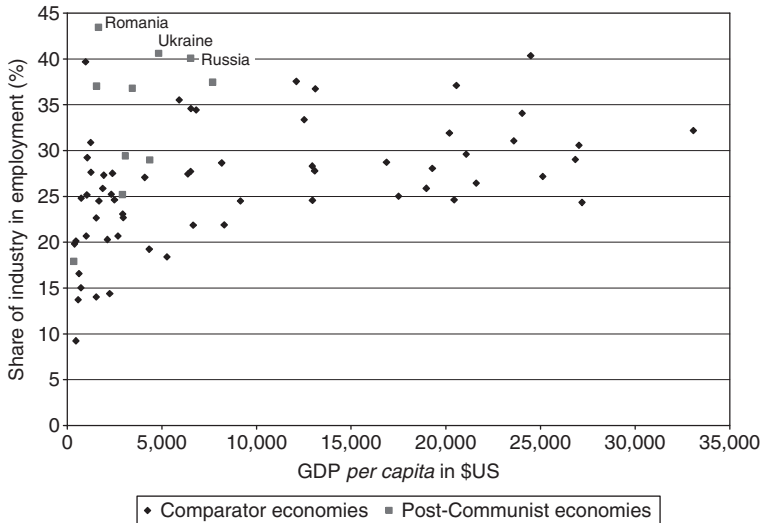


Figure 1.4 GDP per capita and share of industry in employment, 1990

Source: UN Statistical Yearbook (1995) and WIIW database, Vienna Institute for International Economic Studies.

Normally we see the hump-shaped relationship between the level of GDP *per capita* and the industry share. Development in poor countries is accompanied by the build-up of employment in industry transferred from agriculture. The share of industry is highest in the middle-income economies and with further development it stabilizes and shrinks, making room for an expanding service sector. In this respect, the initial drive for industrialization in the CPEs was consistent with the standard pattern of development.

Priority was given to both heavy industry and to the primary sector. In Marxist doctrine, this is referred to as 'the law of the priority development of production of producer goods'. It assumed (wrongly) that:

the production of consumer goods does not grow parallel to that of the whole economy but that initially producer goods are used to produce other producer goods and that only eventually, if ever, there is a switch to consumer good production. (Sirc 1981: 75)

It was the latter which never fully materialized, and the resulting structural distortions increased with time. The problem was that due to structural inertia and maintaining the wrong priorities, the CPEs remained on a track which led them further and further away from an efficient development path based on both consumer goods and modern services. Pulled by the overgrown energy-inefficient industry – the steam engine of the planned economies – the socialist train ultimately came to the end of the line and was derailed.

Military spending

One is tempted to link the high share of steel and heavy industry to the fourth systemic feature identified at the beginning of this section – i.e. to the policy priority given to military spending. The input-output data demonstrate that civilian spending, as with civilian construction and civilian durable goods, may have been even more steel-intensive (Leontief and Duchin 1983). Nevertheless, military expenditure always played an important role. The peak of the 'Cold War' was during the first ten years after 1945, with intensive military effort by both the USRR and the US. Yet, since the mid-1950s, the relative level of spending by the US was reduced and that of the USSR was increased. In 1957, the US share in world military expenditures was 45 per cent and that of the USSR was 20 per cent. By 1978, the former had decreased to 26 per cent, and the latter had increased to 26 per cent (Leontief and Duchin 1983: 6). Yet a similar volume of spending meant a higher share in GDP, given the USSR's much lower GDP level. Moreover, at the beginning of the 1980s the USSR faced an additional military burden triggered by the decision to invade Afganistan and the technological challenge from the US 'Space Wars' programme. Arguably, by that time, the marginal opportunity cost of shifting additional resources to the military-industrial complex was already very high and led to disruptions in other parts of the

economic system. On the other hand, civilian production did not benefit greatly from technology diffusion.

The argument so far has led from the deteriorating economic performance of the command economy system to the pressure for change, with the latter resulting ultimately in economic transformation. Indeed, there is overwhelming evidence that disillusion with the economic results of the socialist system was a decisive factor behind the pressure for political change, as demands for more political freedom were always mixed with purely economic demands, as illustrated by the Polish 'Solidarity' trade union movement which emerged in the summer of 1980 and remained active despite repression over the next decade.

The Communist leaders fell victim to their own ideological beliefs. The economic superiority of the command economy was a cornerstone of the ideology, and high growth rates were supposed to be its prime manifestation. An ultimate logical implication was to aim at some specific date for overcoming the leading market economies – the US in particular – as for instance declared by Soviet leader Nikita Khrushchev in the mid-1950s. Yet none of those predictions materialized. Moreover, the liberalization that followed the death of Stalin made the countries of Central Europe more open. In turn, freedom of movement and experience of a higher quality of life in the neighbouring European Economic Community (EEC, the predecessor of the EU) was a dangerous factor undermining the official claims of the superiority of the Communist system. By the late 1980s, the Soviet leaders, and Mikhail Gorbachev in particular, were well aware of the necessity for economic reform. Nevertheless, their effort to improve the economic system while limiting the scope of political liberalization turned out to be an impossible task.

Arguably, the most acute policy dilemma linking economic policy with politics related to price liberalization. This issue was also linked to the wider question of price policies and 'socialist macroeconomic cycles'. As identified by Kolodko (1979), the command economy was subject to the economic cycle just as much as the market economy. In the phase of expansion, the investment programme was overstretched and the number of projects mushroomed beyond the capacity of the system to deal with them. Too many investment projects resulted from the coinciding interests of the planning administration and individual enterprises to expand production and remove the bottlenecks in the economic system, with no strong individual interests supporting efforts to match the resulting claims on resources with scarcity constraints. This free-rider problem resulted in the dispersion of investment, long completion times for projects and production gains that came too late and did not match expectations. In the next phase of the cycle, to stabilize the situation, savings had to be made and raiding the private consumption pool was the easiest remedy. A slowdown in the supply of consumer goods matched with administrative prices led to price increases having a socially visible and painful, one-off, discrete character.

With time, and with political repression mechanisms being scaled down, these increases become more and more difficult to implement politically, triggering social unrest and protests.

Generally the inefficiency built into the investment processes meant that high growth rates could be generated only by disproportionately high investment rates, at the cost of consumption. This is illustrated by a snapshot of the investment shares in GDP and GDP growth rates in the final period of Communism. For the market economies, there is a positive and significant correlation between investment and growth. For CPEs, there is none. Vietnam, with some market reforms already implemented during the 1980s (see Riedel and Comer 1997), enjoyed a period of fast economic growth without an overstretched investment programme. On the other hand, many CPEs were already in recession or near-stagnation, in spite of maintaining huge investment spending programmes. Mongolia, with a record-breaking 46 per cent of its GDP spent on investment, generated only 4.2 per cent GDP growth, and one may ask how much of that was simply increasing the production of investment goods for future investment in production of investment goods, and so on. At the same time, Chile experienced 10.6 per cent growth, with an investment share in GDP of 25.1 per cent, and Ireland was growing at the rate of 5.8 per cent, spending 18 per cent of its income on investment (see Figure 1.5).

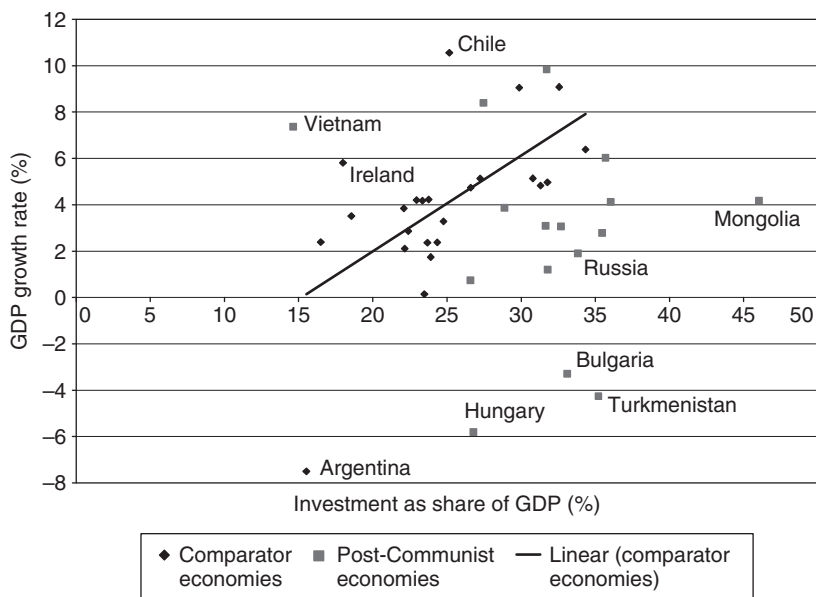


Figure 1.5 Investment and GDP growth, 1989

Source: World Bank, *World Development Indicators*.

The final stalemate? A political economy perspective

By the mid-1980s, with deteriorating performance, it became more and more difficult to find a balance between the desired level of military spending and the high level of investment required to fuel the chosen pattern of growth on the one hand, and the consumption level that maintained some minimum social acceptance necessary for the system to function without major political unrest on the other. While some CPEs (Czechoslovakia, East Germany, Romania) remained centralized and unchanged until the very end, partial reforms were attempted in several CPEs including Hungary, Poland and Russia. It is often argued that the reforms did not produce the expected efficiency gains due to their partial character and inconsistency: a mixed system of economic coordination may be suboptimal not only for a market economy, but also for the classic centralized model of socialism. But the failure of the Communist leaders to reform successfully may be also explained from a political economy point of view – one can argue that while reforms were necessary, the Communist governments were neither credible enough nor strong enough to face the social cost. The situation resulted in a prisoners' dilemma, which may be illustrated by Table 1.1. For each of the four possible outcomes, the first figure in the brackets represents a ranking of outcomes from the social point of view, and the second figure that from the central planners' point of view (Mickiewicz 1988).

Table 1.1 The prisoners' dilemma: economic policy stalemate in the last stage of the command economy

Central planner:	Strategy 1:	Strategy 2:
	Implement market reform and accept that it will shift production away from central planners' priorities to consumer goods	Do not implement reform; economic inefficiency continues, while traditional economic priorities are retained
Society:		
Strategy 1: Accept the initial costs of reforms (prices rise in relation to nominal incomes; some implicit subsidization of basic goods eliminated by changes in the price structure)	Outcome A: Successful reform: restructuring of prices and production, some initial social cost (+1, +1)	Outcome D: Society is paying for the reform, which is not implemented; savings resulting from decrease in real incomes used to support traditional priorities (-2, +2)
Strategy 2: Social unrest – social costs of reforms not accepted	Outcome B: Production is restructured; however, the government is supporting the level of real incomes (borrowing from abroad?) (+2, -2)	Outcome C: Status quo; no reform (-1, -1)

Successful market reform (*Outcome A*) is superior to the status quo. However, it is not achieved: reforms are not implemented (*Outcome C*).

The paradox can be explained by problems resulting from the *time inconsistency* of the reform process and the impossibility of a credible commitment by an undemocratic government. Reform can thus be seen as a two-stage task, where the initial phase of price liberalization has a negative impact on real incomes. After it is implemented, the authorities may carry on with institutional market reforms, measures for freedom of entry, privatization and external openness which should lead to a growth in income (*Outcome A*). However, alternatively, they can use the resulting stabilization to support traditional systemic priorities (*Outcome D*). In the latter case, society is paying the costs of the promised reform, which is not implemented; this outcome is the best from the point of view of the authorities and worst from the point of view of society. The government is unable to commit itself credibly to follow Strategy 1; that could be possible only with restoration of democratic control. Given this, the best strategy for society is to refuse to pay the costs of reform, rejecting the economic policy of the government which has no social legitimization and expecting that either the government will find a solution to the problems it has created, even if reforms are implemented (*Outcome B*) or will maintain the status quo (outcome C).

Thus, in this world of a non-cooperative game, the rational strategies of all involved lead to a stalemate and aborted reforms, even if a movement from C to A would be Pareto-efficient. In most Communist countries the game was implicit, not explicit. There was not enough social representation to negotiate with the government, nevertheless the threat of social unrest was real. In Poland, the pattern can be identified in the negotiations between 'Solidarity' and the government in 1980–1, and again in 1987–9. During the latter episode, the authorities decided to hold a referendum, proposing to introduce economic reforms, with initial social costs implied by price increases. The proposal was accepted by a small section of population only, as the dominant strategy was a simple boycott leading to invalidation of the referendum due to low attendance. Both in 1981 and in 1987, 'Solidarity' was criticized by outside observers for 'irrational' behaviour. The interpretation given above (Mickiewicz 1988) shows that it was perfectly rational to reject 'price reforms' introduced by a government lacking political legitimization. This interpretation was confirmed two years later, when the new non-Communist, 'Solidarity' government was able to introduce far-reaching reforms, with an even more significant social cost, without provoking social unrest.

If the above interpretation is correct, it could point to the impossibility of reform or change of a command economy system without political change. Yet change was becoming a necessity, given deteriorating economic results. This led the authorities to negotiate political reforms, and 'round table' discussions between the government and independent social representation

Table 1.2 The opening balance: post-Communist economies, 1990^a

Country name	GNI, PPP (current international \$ million)	Population, total	GNI per capita, PPP (current internat. \$)	Industry, value-added (% GDP)	Exports, goods and services (% GDP)	External debt/GDP (%)	External debt/Exports (%)	GDP/energy use ^c
Albania	9,025.64	3,282,000	2,750	48.2	14.9	16.6	111.6	4.719837
Armenia	12,211.40	3,545,000	3,440	52.0	35.0			1.853619
Azerbaijan	36,882.73	7,159,000	5,150					1.501622
Belarus	73,132.41	10,200,530	7,170	47.2	46.3			1.74408
Bulgaria	46,718.37	8,718,000	5,360	51.3	33.1	52.4	158.3	2.075735
China	1,594,130.69	1,135,185,024	1,400	41.6	17.5	15.6	88.9	2.334284
Czech Rep.	119,093.91	10,363,000	11,490	48.8	45.2	18.3	40.5	2.569731
Estonia ^b	12,713.20	1,571,000	8,090	49.7	60.3	0.9		1.613445
Hungary	93,979.91	10,365,000	9,070	39.1	31.1	64.1	205.9	3.562825
Kazakhstan ^b	103,755.80	16,266,250	6,380	44.6	74.0	0.1		1.141505
Kirghiz Rep.	16,205.51	4,395,000	3,690	35.8	29.2			2.686325
Latvia	22,737.57	2,670,700	8,510	46.2	47.7	0.5	1.1	2.348068
Lithuania	31,891.45	3,722,000	8,570	30.9	52.1	0.4	0.8	2.208035
Macedonia, FYR	8,732.91	1,903,000	4,590	46.7	25.9			

Moldova ^b	22,843.50	4,362,000	5,240	33.3	89.4	0.4	2.094474
Mongolia	3,387.48	2,106,000	1,610	40.6	21.4		
Poland	205,162.68	38,118,800	5,380	48.3	27.6	80.7	292.2
Romania	145,538.53	23,207,000	6,270	50.0	16.7	3.0	17.8
Russia	1,497,556.06	148,292,000	10,100	48.4	18.2	10.2	56.4
Slovak Rep.	47,649.59	5,283,000	9,020	59.1	26.5	13.0	48.9
Slovenia ^b	24,232.73	1,998,100	12,130	45.6	63.1		4.5096
Turkmenistan	21,713.72	3,668,000	5,920	29.6			1.838056
Ukraine	358,724.37	51,892,000	6,910	44.6	27.6	0.6	2.2
Uzbekistan	51,356.68	20,420,000	2,520	33.0	28.8		1.074833
Vietnam	64,536.84	66,200,000	970	22.7	26.4	359.6	1361.0
							3.049592

Source: World Bank Development Indicators.

Notes:

^a For the former republics of the USSR, data on external debt relate to 1992.

^b For Estonia, Kazakhstan, Moldova and Slovenia export data relate to 1992.

^c Energy/GDP: PPP \$ per kg of oil equivalent, 1992.

GDP = Gross domestic product.

GNI = Gross national income.

PPP = Purchasing power parity.

Table 1.3 The opening balance: comparator countries, 1990

Country name	GNI, PPP (current international \$ million)	Population total	GNI per capita, PPP (current internat. \$)	Industry, value-added (% GDP)	Exports, goods and services (% GDP)	External debt/GDP (%)	External debt/Exports (%)	GDP/energy use ^b
Argentina	241,277.70	32,527,000	7,420	36.0	10.4	44.0	425.0	6.729418
Austria	145,056.28	7,725,700	18,780	30.9	39.6			6.378514
Brazil	801,898.23	147,940,000	5,420	38.7	8.2	25.8	314.4	6.416394
Chile	61,495.80	13,099,000	4,690	41.5	34.6	63.4	183.1	5.187386
Egypt	128,738.17	52,442,000	2,450	28.7	20.0	76.4	381.1	4.321693
Finland	86,674.75	4,986,000	17,380	29.2	22.8			3.176463
France	1,019,410.12	56,735,000	17,970	26.5	21.2			4.709553
Germany ^d	1,536,286.26	79,433,000	19,200	33.1	26.3			4.761975
Greece	118,081.96	10,161,000	11,620	25.5	18.5			5.447119
Indonesia	333,337.33	178,232,000	1,870	39.1	25.3	61.1	241.1	3.993804
Ireland	41,099.46	3,505,800	11,720	31.8	57.0			4.839881
Italy	977,699.80	56,719,000	17,240	30.8	19.7			6.870801
Japan	2,476,708.20	123,537,000	20,050	41.2	10.7			5.968128
Korean Rep.	382,138.74	42,869,000	8,910	43.1	29.1	13.8	47.6	4.144351

Malaysia	83,004.57	18,201,900	4,560	42.2	74.5	34.8	46.7	3,719,639
Mexico	515,859.68	83,226,000	6,200	28.4	18.6	39.8	213.7	4,589,16
Morocco	67,062.85	24,043,000	2,790	32.4	26.5	94.7	358.1	10,120,36
Portugal	110,437.83	9,896,000	11,160	28.7	33.2			6,876,195
South Africa	281,336.45	35,200,000	7,990	40.1	24.4			3,274,795
Spain	500,099.87	38,836,000	12,880		16.1			5,683,627
Sweden	150,715.63	8,559,000	17,610	28.1	30.1			3,453,745
Tunisia	30,871.57	8,156,000	3,790	29.8	43.6	62.6	143.6	6,444,978
Turkey	274,817.09	56,126,000	4,900	29.8	13.3	32.8	246.8	5,606,571
UK	955,583.50	57,561,000	16,600	31.4	24.0			4,589,401
US	5,876,806.58	249,440,000	23,560		9.7			3,244,226

Source: World Bank Development Indicators.

Notes:

^a For Germany, data relates to 1991 (i.e. post-unification).

^b Energy/GDP: PPP \$ per kg of oil equivalent, 1992.

FYR = Former Republic of Yugoslavia.

GDP = Gross domestic product.

GNI = Gross national income.

PPP = Purchasing power parity.

became the trademark of the peaceful political transition implemented in Central and Eastern Europe during 1989. The aim was no longer to reform, but to *transform* the system.

An alternative interpretation of the link between political reform and the economy can be derived from Barro (1997). According to this, the implosion of the Communist system can be seen as a spectacular historical event, yet one which is still consistent with global trends. Political freedom can be seen as a 'luxury good' – i.e. one for which demand appears only at some specific level of income. There is not much need for political freedom in poor countries, where basic material necessities take precedence over civic liberties. This reasoning is based on the empirical link between income *per capita* and political freedom. Indeed, at the beginning of the twenty-first century, the two command economies which remain most rigid in terms of political repression are also those which have failed in terms of economic development: Cuba and, even more so, North Korea. From this perspective, the political change in Central Europe and the Soviet Union could be triggered by the relative success of the command economy system there, not by its failure. Even if the system were not able to converge with the advanced market economies, it was still producing satisfactory rates of economic growth (Tables 1.2, 1.3). In the longer run, the standard of living improved, and that triggered demand for political change.

Notes

1. The command economy was also adopted by Yugoslavia and Albania, yet politically those two countries remained outside the 'Soviet Bloc' – i.e. outside 'the sphere of influence' of the USSR, as defined by the lack of a Red Army military presence.
2. The distinction between those four dimensions draws on Gregory and Stuart (1995). Decision rules and property rights are related dimensions (some control or decision rights are embedded in property rights), but we follow the traditional distinction here. See also Kornai (1992), Milgrom and Roberts (1992), Gros and Steinherr (1995, 2004), Temkin (1996) and others.
3. See Applebaum (2003) for an extensive account based on a wide range of sources, many of which became available only after the fall of Communism. Between 1929 and 1953, 18 million people passed through 476 camps scattered across the Soviet Union; at least 3 million perished.
4. Or for sixty years, if we exclude the initial phases of 'war communism' and the 'New Economic Policy' (NEP) in the USSR (see Gros and Steinherr 2004). At the beginning of the twenty-first century, the system is still operational in North Korea and Cuba. In addition, China and Vietnam offer two important examples of economic systems which can be functionally described as a unique evolving mixture of a command economy and a market economy.
5. 'Why is there an objective price structure in a competitive market? Because, as a result of the parametric function of prices, there is generally only *one* set of prices which satisfies the objective equilibrium conditions – i.e. equalises demand and supply of each commodity. The same objective price structure can be obtained in

a socialist economy if the *parametric function of prices* is retained. On a competitive market the parametric function of prices results from the number of competing individuals being too large to enable any one to influence prices [on] his own. In a socialist economy, [since the] production and ownership of...productive resources [apart from] labour [are] centralised, the managers certainly can and do influence prices by their decisions. Therefore, the parametric function of prices must be imposed on them by the Central Planning Board as an *accounting rule*' (Lange 1936:63, emphasis in the original). Note that the argument used by Lange implies that a market socialist system with free prices *and* state ownership of capital assets is also feasible, provided that the enterprises are not large – i.e. are unable to inflict monopolistic distortions. Thus, why centralized administrative control over enterprises (including prices controls) is important for the socialist system is not really explained. The answer is that centralized control is crucial, not just because of the monopolistic position of enterprises but because of the incentive problem, which Lange was unwilling to admit. Decentralized enterprises with no transferable property rights to capital assets would still not guarantee that the assets were matched with those who could use them in the most efficient way.

6. All the data correspond to Tables 1.2–1.3, pp. 20–3.
7. This is the so-called 'ratchet effect'. See Milgrom and Roberts (1992); Roland (2000).
8. Energy use is affected by the production structure. Economies based on tourism, for example, may be very energy efficient in this respect (see Morocco in Figure 1.3).

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