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“Who has the easiest life in Poland? Mainly large enterprises. The sectoral and ministerial plans depend directly on their work. If they go short of a single screw, the minister thunders and the lightning flashes… Next, things are not too bad for the producers of export goods. Finally, an easy life is the lot of those who cheat a little.” Jerzy Burzyński, in 1965, writing about Poland’s Bytom machine-building plant

[It was] a system that worked, more or less, but which was incapable of finding a positive solution to any of the basic problems in the latter half of the twentieth century,” Radoslav Selucký, in 1970, a Czechoslovak economic reformer

“Those who state that we have resuscitated… the mechanisms of the market, introducing them into socialism by stealth, are wrong. The market, buying and selling, and money have always existed in a socialist economy. But their existence did not meet the needs of the situation [in 1950. Today] there are enterprises which are still enjoying an unjustified right of monopoly, which makes the managers lazy and places the customers at the enterprises’ mercy. That is why these problems must be resolved at the earliest possible moment.” Reszö Nyers, in 1969, CP Central Committee Secretary, Hungary

Reszö Nyers saw it all, from the inside. Once a printer and a Social Democrat present at the creation of communist Hungary, Nyers served its Ministry of Domestic Commerce in the early 1950s, rose to the Central Committee in 1954, voted for the

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execution of reformist icon Imre Nagy four years later, and in 1965, became the principal draftsman for a New Economic Mechanism (NEM), in Hungarian planning reform’s second wave. The remarks above were his response to entrenched orthodox (neo-Stalinist) resistance to restructuring economic policy and managerial practice, given unimpressive growth and rising internal tensions in the 1960s. Across Central Europe, battles between re-centralizers and de-centralizers had rarely ceased since 1956, the year in which the Hungarian uprising and Khrushchev’s denunciation of Stalin at the 20th CPSU Congress ended postwar communism’s first phase, and they continued. Such struggles crested again near 1970, as Hungary’s NEM debuted uneasily soon after the 1968 Soviet-led invasion of Czechoslovakia and just before Poland’s tone-deaf leadership sharply hiked food prices, triggering widespread December 1970 riots, crushed brutally by military forces (40+ killed, 1,000+ wounded, 3000+ arrested).

Hence, this discussion of communist-era enterprises and their managerial challenges falls readily into two segments, from the War’s end to 1956, and from 1956 to 1970. This periodization derives from political events, yet in the People’s Democracies politics and the economy were so entwined that the two eras reflect enterprise dynamics as well. Stalinist centralized planning echoed the conquering Nazis’ economic management, as Kazimierz Wyka ironically noted. Under German occupation, “the worst evils concentrated in managing planned industry, in the planned distribution of goods, in administrative intervention in economic life, and above all, in fictionalized earnings.” Wartime survival practices also taught Poles “how to be successful in business and how to deal, that bribery could be a collective defense, a kind of universal vaccine… The Germans turned out to be fantastic bribe-takers.” Such lessons were also remembered.

For Nyers biography, see https://en.wikipedia.org/wiki/Rezs%C5%91_Nyers In the 1970s, as conservatives again gained power, Nyers left his administrative posts and joined the Academy of Sciences, where he edited Közgazdasági Szemle (Economic Review) into the 1980s. He later headed a third effort to revitalize business, as chair of the National Assembly’s Reform Committee and Minister of State (1987-89). This having failed, he oversaw the dissolution of Hungary’s communist party in 1989 and chaired its successor, the Hungarian Socialist Party through the first general elections. Nyers, now 93, apparently lives in Hungary.


In Hungary, economic reformer Bela Csikos-Nagy stressed that “[t]he economic mechanism of the early fifties, [adopted] amidst attempts to overcome wartime damage, grew stronger as a companion to an economic policy [based on] the hypothesis of the danger of an immediate war.” However, by the mid-sixties, “relatively peaceful conditions” permitted reordering priorities, notably creating enterprise practices that could “ensure optimum efficiency.”

Managing reconstruction and war preparations gave way gradually and unevenly to striving for effective resource use, technical advances, rising standards of living, increased political independence (re the USSR), and greater enterprise autonomy and initiative (re central planners and the Party). This transition did not go as well as might have been hoped: enterprise performances ranged from stellar to dreadful, waste and shortages proved endemic, whereas the problem of inter-firm, much less intra-bloc, coordination remained daunting. Exploring how management worked and changed amid such endemic turmoil is the purpose of this essay.

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8 Assessments of Central European economic performance under socialism do take note of the persistent force military-oriented production exercised over access to and utilization of installed capacity. Just after the war, locomotives, rolling stock, trucks, and weaponry newly-manufactured in Poland, Hungary and Czechoslovakia (PHC) went directly to the USSR, some as ‘repairs’ (Hungary) and the rest at prices set by the Soviets. Later, the USSR concluded large contracts selling military goods (often used WWII materiel) to PHC to build armed forces, one-third of the price in goods returned to the Soviets, two-thirds in long term loans at 2 percent interest. Sizable orders for Bloc-produced weapons followed in the early 1950s. Reducing these demands was essential to creating growth trajectories in all three states, but it was far from a simple matter, nor has documenting its extent been easy, given the secrecy about accounting for such work in national reports. See William Bomberger and Gail Makinen, “The Hungarian Hyperinflation and Stabilization of 1945-46, Journal of Political Economy, 91 (1983): 801-824, and Pal Germuska, Unified Military Industries of the Soviet Bloc, Lanham, MD: Lexington, 2015, esp. ch. 1.


10 This is distinct from assessing how the economies worked, well or fitfully. Shelves of studies have taken up the aggregate questions (often having to rely on dubious data), but few investigators have explored enterprise operations at the ground level. The extensive translations of newspaper and journal articles,
This review proceeds through three sections, sketching: 1) the postwar context for creating central planning and communist enterprises, plus the tasks and dilemmas their managers soon confronted; 2) resulting 1950s crises and reform pressures; and 3) second era review of national distinctions, reform efforts, and managerial initiatives or evasions, drawn from sectors like metalworking, chemicals, and construction, focusing on achievements and shortcomings through 1970. Overall, what follows derives from a baseline question: “What can business historians learn from Cold War communist firms and managers?” No answer will be provided here; it is far too soon for that.

Section One: Postwar Context and Managerial Tasks (to 1956)

By summer 1945, Poland had been doubly wrecked, first by the Nazis, then by the Soviets; Hungary’s largest city was a ruin; and western Czechoslovakia (the Sudetenland) was a site of massive, forced emigration. Prague had been damaged, not destroyed. Infrastructures everywhere had been shattered – railways, bridges, telegraph/telephone systems and electric power plants hammered to bits. Nearly everywhere, factories had been either flattened, emptied of machinery, or left standing, windowless, holding only worn-out or broken equipment. Retreating Germans had routinely dynamited what they could not load on trains and trucks; arriving Russians rapidly looted much of the remainder, filling railway cars with raw materials, machines, finished goods and components for removal to the USSR, along with the trains themselves (and in Poland, the rails also). In parallel, Central Europe experienced what Ivan Berend’s 1988 task

decrees and interviews, from PHC (and elsewhere) by the Joint Publications Research Service (ca. 1958-1992) and archived Radio Free Europe reports, interviews and analyses make possible a more granular encounter with “doing business” under communism. Both collections are available online, JPRS by subscription and RFE free..

11 Keith Lowe points out that “[i]n Budapest, 84 percent of the buildings were damaged, and 30 percent of them so badly that they were entirely uninhabitable.” (Savage Continent: Europe in the Aftermath of World War II, New York: Picador, 2012, p.6.) U.S. planes did bomb Prague in 1945, but the city did not experience ground warfare.

12 Poland lost ca. 10,000 miles of railway track and 85 percent of its rolling stock. (Ibid., 10.) See also Ian Buruma, Year Zero: A History of 1945, New York: Penguin, 2013. A Polish postwar report indicated agricultural depletions at 2.8 million horses (75%), 8.5 million cattle (60%) and 6.4 million pigs (80%). See Thad Paul Alton, Polish Postwar Economy, New York: Columbia UP, 1955, 32. A Radio Free Europe informant noted in spring 1951 that “Two large shipyards in Szczecin, which had been thoroughly destroyed by Russian dismantling, will be rebuilt.” Both were once German-owned yards. See “Building Construction,” RFE File HU OSA 300-1-2-1667, 5 July 1951, at http://www.osaarchivum.org .
force on Hungary’s recent history termed “a social landslide at the end of the war.” The Holocaust, plus wartime military/civilian deaths and boundary changes, reduced Poland’s population nearly a quarter, from 32 to 24 million. Equally dramatic, millions more migrated across borders, voluntarily or under duress. Most of East Prussia’s eight million Germans “escaped with the retreating Wehrmacht”; the rest were soon driven out, making way for two million Poles shifting from territories the USSR had absorbed and at least that many more from “overcrowded” central Poland. Expulsion of Czechoslovakia’s Sudeten Germans (2.2 million) and Hungary’s Saxons (200,000) completed a fierce round of ethnic cleansing, though the Czechs’ removal of 100,000 Hungarians “labeled as fascists” added notes of political reprisal to this grim composition.

It is useful to recall that Communist political control did not instantly arise with the Red Army’s arrival in Warsaw, Budapest or Prague. In Poland, a London-based exile government vied for power with Soviet-backed communists returning from Moscow. The latter soon headed an uneasy “five-party coalition” that outlawed right-wing parties, held a (perhaps-rigged) national referendum on nationalizing heavy industry, and vaporized after the communists swept the 1947 general elections, crushing the Polish Peasant Party and absorbing it a year later. Hungary and Czechoslovakia, by contrast, created “genuine democratic coalitions” in which communists initially were prominent, but not controlling. In Prague, President Eduard Beneš restored the prewar parliamentary regime, with communist Klement Gottwald serving as premier. Gottwald triggered a February 1948 crisis, once “communist forces” took control of the police, “non-communist members of the government resigned.” Under pressure from massive street demonstrations, Beneš approved a “People’s Front government,” completing a slow-motion coup that confirmed the Party’s ascent. By contrast, Hungary’s first postwar elections gave rural

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13 Ivan Berend (General Secretary of the Hungarian Academy of Sciences and team leader), “Hungary: 40 Years of Communism,” Társadalmi Szemle (Social Review) February 1989, 5 , JPRS East Europe (JPRS-EER-89-083), 26 July 1989. This CP Central Committee commissioned research on the “Historical Antecedents to the Current Situation,” amid crumbling party authority and dire economic conditions.

conservatives in the Smallholders Party 57% of the vote vs. 17% each for the Social Democrats and the Communists. CP head Mátyás Rákosi first crafted a leftist coalition, then weakened the Smallholders through rumors of conspiracies and relentless attacks on their leaders. In 1947, the Soviets lent a hand by “arresting and deporting” Smallholders Secretary General Béla Kovács, then provided local communists with “testimony” by Kovács denouncing Prime Minister Ferenc Nagy, forcing Nagy’s resignation. This cleared the way for CP political dominance and mass nationalizations.  

Creating economic plans for the three nations was a more uniform process, drawing explicitly on Soviet practices, though the pace of industrial nationalizations, and especially of agricultural transformations, was quite uneven. Multi-year and annual plans emerged from central administrative units which set growth and output targets, amassed resources to be allocated to monopoly sectors (infrastructure and industrial construction, metalworking, mining), decreed work rules, wage rates, bonuses (“premiums”) and sanctions, and most crucially, devised literally thousands of indices to measure performance/outcomes at the product, factory, and enterprise levels. “Fulfilling the plan,” meaning meeting or surpassing an index base (100% of the target), was everywhere the obligation of management, engineering, and labor. This was one key stimulus toward a communist version of “gaming the system.” There would be many others.

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15 Berend, Central and Eastern Europe, Ch. 1; Peter Kenez, Hungary from the Nazis to the Soviets, New York: Cambridge University Press, 2006; Peter Hruby, Fools and Heroes: The Changing Role of Communist Intellectuals in Czechoslovakia, Oxford: Pergamon Press, 1980, Ch. 1.

16 As is well-known, farm collectivization in Poland stalled by 1953 and was soon rolled back, creating a mixed sector of private holdings and co-operatives. More thoroughgoing state management of agriculture was achieved in Hungary and Czechoslovakia, with the former after 1961, and the latter, after 1968, almost completely nationalizing farmland. State collectives and tractor stations in both countries had consistent problems mechanizing production, not least in keeping powered equipment running. See RFE Files “‘Tighten Up the Screws’: Tractor Repair Station at Chognow,’ HU OSA 300-1-2-51325, 15 October 1954, and S.P. Lyon, “Current Developments in the Czechoslovak Economy,”, HU OSA 300-8-3-1521, 26 September 1957.

17 At a Czech light bulb plant, planners scheduled production of “one million watts in bulbs” during 1951. Managers chose to meet the goal by making 10,000, 100-watt bulbs, rather than the much larger number of 25-, 50- and 60-watt bulbs needed to reach the one million goal. The result was a shortage of lower wattage bulbs and a surplus of 100-watt ones. At a spare parts and metal fasteners factory, whose planning target demanded so-many thousands of kilograms of screws per year, managers, “in order to make things easier for themselves, design[ed] big screws which weigh a lot, but can scarcely be used when small ones are wanted.” See “Conditions in the Precision Machine Industry,” RFE File HU OSA 300-1-2-19183, 8 May
Three key levels of management emerged. The central planning cadres were an elite cluster of economists, engineers, and Party functionaries who devised “economic management,” nationally and in relation both to the USSR and to “friendly” socialist states. They worked toward three, not-always-compatible goals: full employment, stable prices, and rapid growth (with rising productivity and living standards). In the first (Stalinist) postwar period, they were as gods, at least to those lower in the hierarchy; but when plan failures accumulated, they could be and were dismissed (sometimes to labor camps) by disappointed political leaders. Slovak economist Radoslav Selucký credited persistent errors to “the inexperience of new people who fought doughtily for power but could not master the complex problems of running an advanced industrial society.”

Still, state control of capitalist firms was not a novelty in Central Europe. Authoritarian regimes in Poland had created state monopolies starting in the 1920s, extending to full industrial planning in 1936. Both Hungary and Czechoslovakia had interwar, government-approved cartels and experienced comprehensive economic management during their wartime alliance with and occupation by Nazi Germany, including centralization of investment. Hence at war’s end, surviving state managers could be slotted into leading planning positions, in some cases after cleaning up politically-embarrassing resumés.

Nationalizations at the firm level preceded amalgamations of enterprises, by sector, into state monopolies (food processing, railway supplies), supervised by Ministries (as for Heavy Industry) and administered by directorate executives. Here the problem of “missing” and inexperienced managers soon became severe, as the newly-merged enterprises commonly employed 10-30,000 workers at multiple, scattered sites. Outside national railway systems, few Central European managers had ever faced so vast

1952. The same sort of “norm cheating” was practiced at Budapest’s famed Ganz Electrical Works, where making “small screws, being unfavorable in terms of overall production norms, was entirely neglected.” There, the supervisor was suspended in 1954 “and may go to jail.” See “‘Screw-Up’ in Screw Factory,” RFE File HU OSA 300-1-2-44590, 11 March 1954.

18 Selucký, The Plan That Failed, 53-54.

an array of coordination and control challenges. Third, at the factory, mine, or retailing level, veteran enterprise directors and capitalist owners continued managing, often returning from exile or prison camps to these jobs. Their resumption of authority was frequently a source of contention from “liberated” workers, who rejected restoration of pre-war labor relations. With the settling-in of Stalinist centralization, most holdover directors were dismissed as politically unreliable, replaced by party activists whose credentials for management were slim.

For example, in 1952 at Ostrava, Czechoslovakia’s metalworking plant, where 2500 men fabricated mining equipment and spare parts, 55-year-old Frantisek Vrba served as general manager. Previously a manual laborer, he had “no idea of how to run a big enterprise.” The “real managers” were the heads of production engineering and the personnel department, the latter also directed the “factory trade union branch.” This became routine – a managerial triumvirate including a General Director, a Head Engineer, and a Union Chief, one of whom represented the Party and used the personnel role to screen applicants and dismiss troublesome workers. The more technically-demanding the production tasks, the more significant to successful operations were staff engineers and technicians. Thus in chemicals, pharmaceuticals, machinery and ship building, electrical technologies and power plants, Head Engineers (usually not General

20 Kornai, Overcentralization, 21-22.

21 Workers would soon discover their power to influence either enterprises or the state was radically circumscribed. As Martin Myant noted: “To the majority of workers the labor process remained totally unaltered by the formal transfer of ownership to the state.” (Myant, The Czechoslovak Economy, 1948-1988, Cambridge: Cambridge University Press, 1989, 45.) However, their periodic outbursts in widespread walkouts and riots had substantial effects on political leaders, who frequently responded by trying to improve living standards and the availability of consumer goods. Labor relations issues are largely outside the scope of this essay, regrettably. For detail see Padraic Kenney, Building Poland, Workers and Communists, 1945-1950, Ithaca: Cornell University Press, 1997.

22 A Czech sociologist later commented: During “the revolutionary change of 1945-48, whole staffs of capitalist enterprises in the CSR were replaced. The new workers replaced in many cases collaborators, in other cases special-interest groups of businessmen who had been sabotaging the process of socialization. However, they also replaced old experts. This process continued mostly along its negative lines even after 1948.” Jaroslav Kohout, “Management Personnel of Skoda Works Surveyed,” Moderní řízení (Modern Management) February 1969, TEE-EIA, No. 120, JPRS 47964, 2 May 1969.

23 At SOE headquarters there was a similar trio of top managers: a Director (the political leader), a Chief Engineer (technical leader), and a Chief Accountant (financial controller). See “Building Industry and Construction in Hungary before the Revolution,” RFE File HU OSA 300-8-3-3211, 15 February 1957.
Directors) could turn aside Party-selected job candidates as dangerously undertrained, even though they, like all top factory officials, had been appointed by Ministries and could be dismissed at any time.24

At Ostroja, a 250-man security force and a disciplinary court punished slackers or saboteurs, *viz.*: “In March 1952, one Joseph Skoupy, 20, was sentenced to two years imprisonment. The reason: six of 30 pieces made by him were rejected as imperfect,” the fact that he “had received the wrong material” having been ignored.25 In the Stalinist years, managers too stumbled into such dreadful outcomes. Planners set high goals that simply proved impossible to achieve, especially in manufacturing and the building trades. In Budapest, when there supposedly was trouble with a 1949 USSR reparations delivery of equipment for “180 jamming stations,” Imre Geiger, CEO of the Standard Radio Factory, was arrested for sabotage, together with his chief engineer, Zoltan Rado. After a pro-forma trial, both were executed.26 Less brutally, after delays in completing the 1951 Brno airport and approach roads, Prague officials cashiered the project’s chief engineers. Firing managers became so common that a bitter joke circulated: ‘After the sacking of one unsuccessful works manager, a man expressed the opinion that an association could be formed of dismissed managers. A Party secretary replied: “This could hardly be done, as mass organizations are strictly forbidden in this country.”’27

24 “Production at the MAVAG Locomotive Factory of Budapest,” RFE File HU OSA 300-1-2-5655, 30 August 1951, where each of the plant’s five divisions was headed by a “responsible” non-CP engineer, because the Party secretary could not provide “enough fairly qualified men for these positions.” The Chief Engineer, Adam Ferro, had worked at Ford in Budapest and “has an excellent technical background.” Similarly at Orion Radio in Budapest, “the whole responsibilities lies on the shoulders of Chief Engineer Szelba,” as the GM was a relative of Party boss Erno Gero. “The Orion Radio Set Factory,” RFE File HU OSA 300-1-2-46528, 18 May 1954. See also RFE Files “The Dilemma of Polish Engineers: For or Against the West,” HU OSA 300-1-2-47263, 11 June 1954, and “Working Conditions in Poland’s Chemical Trust,” HU OSA 300-1-2-50528, 22 September 1954.


26 “Production of Standard Factory,” RFE File HU OSA 300-1-2-15056, 7 February 1952; see also http://www.rev.hu/sulinet45/szerviz/kislex/biograf/geiger.htm (accessed/translated 21 January 2106). This was an element of a then-famous case in which American Robert Vogeler, a ITT executive serving as a Standard Radio deputy director, was seized for espionage and sentenced to 15 years imprisonment in another of the era’s many show-trials. Luckier than Geiger and Rado, Vogeler was released after 500+ days. As Selucký ruefully observed: “Where there was a shortage of genuine counter-revolutionaries, these had to be manufactured.” (*Plan That Failed*, 56). Also László Borhi, *Hungary in the Cold War, 1945-1956*, Budapest: Central European University Press, 2004, 183-84.

In truth, “scarcely anybody in the respective government offices knows anything about the real situation of public works. They are flooded with [weekly] reports… which only increase the general chaos.” Construction managers constantly claimed “much higher working results than really achieved,” falsifications too infrequently discovered because Ministries and state monopoly directorates had “very few expert technicians.”

Likewise at Poland’s Szprotawa metalworking plant, “the office is flooded with papers, documents, reports and statistics. Every head of section or department has so much responsibility and must take so many risks, that most of them after some time suffer from a nervous breakdown and would prefer any sort of manual labor.”

After a series of 1949-52 purges achieved political harmony, the parlous credentials of replacement plant managers/directors could not be ignored. In the mid-1950s, two Slovak commentators scored “the low degree of qualification on the part of our economic workers… only 10% of those employed in management are experts with university education, about 18% have secondary education [only].” Nearly a decade later, a national survey found that “almost one third of the directors of Czechoslovak enterprises and plants… did not possess more than an elementary education.”

Relations among central planners, executives in the merged State Owned Enterprises (SOEs), and plant managers were at best cordial. As economist János Kornai explained, reviewing Hungary’s textile, clothing and shoemaking sectors in the mid-1950s: “the annual plans for enterprises carry no authority… As soon as these plans are received, they are put away in a drawer.” Their only utility was political, as prods “for mobilizing the workers” toward reaching targets. Equally problematic, the Ministries and SOE leaders charged with delivering raw materials routinely failed to do so; supplies

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28 Ibid.


30 J. Ferianc and V. Pavlenda, “Our Economic Science Must Not Remain a Dead Letter,” Pravda (Bratislava), 9 April 1957, in RFE File HU OSA 300-8-3-1485, 17 May 1957; Hruby, Fools and Heroes, 99. Ferianc and Pavlenda’s analysis: “Many methods of [economic] administration have become established which are stiff and clumsy… Routine and mechanical ways of dealing with problems… create additional ones, thereby unnecessarily complicating the solution of problems… that are already grave enough.”
were “halting, spasmodic,” in fair measure because, in textiles, 80 percent were imported. [Of course, planners did not have responsibility for concrete operational activities.]

Shipping delays, currency issues, and within Comecon, delivery of materials not meeting specifications, made a shambles of plant-level planning in fabrics, apparel and footwear, as did weak coordination between export trading agencies and producers concerning the details of demand abroad.  

Worse, SOE bosses and economic Ministries altered plan targets arbitrarily or sent out sheaves of “instructions”, demanding reports and compliance with adjustments. ”In Hungary, in 1952, the then-current five-year plan was changed 472 times, and the yearly plan… 113 times."  

The Újpest Leather Factory (near Budapest) received 102 “instructions” in the last four months of 1955, not counting plan modifications or Ministry decrees, “each one of which contains further instructions.” Ministry “inspectors” were another plague, arriving without notice to check on plan progress, absenteeism, or materials inventories. At a Prague apparel factory, director Karel Vasely “did his best to make the work easier” for its young women sewers, but when they “lacked material for days,” the Ministry pressed management “to catch up with the production plan regardless of how hard and how long [workers] had to be bent over the sewing machines.” Such irregularities and extended workdays lowered product quality, of course.  

Such events reveal the designed powerlessness of managers in factories, cooperatives or department stores, enmeshed in a system featuring accountability without authority. As Selucký detailed:

The fusion of political and economic monopolies was theoretically defended by the principle of the unity of power and ownership. … The state runs the economy itself; it does not set up an independent organization for the purpose. Economics are entirely subordinated to politics and the state does not recognize economic

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31 Kornai, Overcentralization, 10-13, 23. As a result, managers widely sought to hoard raw materials, to even out production swings, or over-ordered materials from suppliers, which led unsurprisingly to the latter’s arbitrary reduction of deliveries, as it was usual for operating plants to request 150-200% of supply firms’ output capacity. The Soviets were notorious for delivering shabby raw materials, low-grade cotton and low BTU-yielding coal.


33 Ibid., 68; “Working Conditions at Pragodev,” RFE File HU OSA 300-1-2-54387, 13 January 1955. It is likely that many instructions were ignored, but inspectors could not be swept aside, as their reports could lead to canceled bonuses or managerial dismissals.
management as an activity in itself... The individual enterprise, as the basic economic unit, is regarded at the same time as the lowest rung in the ladder of government.  

Hence, formally, enterprise managers were structural ciphers, destined to carry out orders from the center in a system that “may function downward well enough, but [in which] there will be no feedback, no flow of information from below.” Hence, “there is a tendency to hang back when it comes to appointments to the posts of chief engineer or director, not to mention the reluctance shown by plant managers when the question arises of ‘promoting’ them to some post in a ministry.” Similarly, avoiding taking initiative toward, or even responsibility for, meeting plan targets, was not unusual. In 1952, the general manager of Chemoproject at Bratislava, a locksmith with “no formal technical education,” regularly redirected construction projects authorized by Prague to other Slovak enterprises, so as to “escape final responsibility for them,” with the result that his own staff were idle, failed to meet norms, earned no bonuses, and were miserable. They complained to the Party leadership, which promised action, but apparently did nothing.

Elsewhere, meeting targets was could be accomplished through ruses and manipulations, which provided opportunities for sometimes desperate creativity. One remarkable example, among many, must suffice here. In 1953, amid a severe shortage of iron and steel for reprocessing, Budapest’s Iron and Metal Scrap Collection Enterprise, Vapem, received orders to increase output. With the collusion of management, its employees began systematically to defraud their Ministry:

The workers loaded a truck with 60 hundredweights [of scrap], passed the two weight controls [at their yard’s gate], but at the railroad station unloaded 20 hundredweights only. They returned with the rest, added 20 hundredweights [again passed through the scales] and went back to the station, repeating this three times,

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34 Selucký, Plan That Failed, 21 (emphasis in original). Selucký (1930-91), a Party propagandist in the 50s, moved on to film-making and critiques of central planning in the 60s, becoming a professor of political economy at the Prague School of Politics and Economics, before exile after the 1968 invasion. He later joined the faculty at Carleton University, Ottawa, Canada.

35 Ibid., 23.

36 Kornai, Overcentralization, 85. Kornai offers many examples of gaming the indexes, at 56-64.

and unloading the whole shipment at the last tour. They theoretically had delivered 180 hundredweights, while in fact only 100 hundredweights had been shipped. Next day, the names of the drivers were written on the production board, with the note that they had filled the norms to 130 percent. When the iron shortage became even greater, the workers loaded 20 hundredweights of stones at the bottom of the truck and heaped the scrap on top.\textsuperscript{38}

The lack of coordination between reports to the Metals Ministry and reports by the Railway Directorate assured the scheme’s invisibility.

Given that central planning was an allocative system and that all three countries faced major rebuilding challenges, \textit{construction} tasks dominated immediate postwar initiatives, especially in creating heavy industry capabilities through state “investments.” Yet construction work sharply differed from making steel rails, machinery, or traction equipment, given its project structure, constantly shifting work locations, unexpected obstacles, site-specific design changes and mobile workforces. The vertical power relations governing production, transport and distribution did not carry over, for construction proved to be regionally organized, locally networked and effectively unmanageable from the center. Controlling budgets, workforces, and schedules was far harder than in factories, as was SOE or ministerial project oversight. For a sense of scale, during Poland’s Six Year Plan (1949-55), capital spending on public works, housing, industrial plants and equipment “gobbled one quarter of all national income.” (By contrast, construction in 1948 represented 4.2 percent of U.S.GDP.\textsuperscript{39}) More concretely, “every Pole gave up from one to two months’ earnings a year for capital investments, not counting tax deductions, compulsory state bond issues, and other devices” that also amassed funds for state projects. The result: by 1955 some 12,000 factories sprouted, “the foundations for an industrial economy were laid,” with annual steel output more than

\textsuperscript{38} “Shortage of Iron and Metal Scrap in the Factories,” RFE File HU OSA 300-1-2-56594, 25 March 1955. The report was by one of the drivers who traveled West to avoid arrest, though the ruse had not yet been uncovered when he departed Hungary in August 1954. Sixty hundredweights is six metric tons, 6,000 kilos or 13,200 pounds.

doubling to five million tons (1949-56). Yet the chaos this process unleashed provided a bracing and too-rarely-appreciated counterpoint to rational “planning.”

The key to appreciating how vexed construction sector performance was lies in the way the concept “investment” was implemented. In central planning, supply and distribution practices displaced market means for determining where and how much capital would be devoted to building, equipment, and repairs across the economies. In the first postwar period, planners designated an annual total for investment funds; ministries and SOE directorates determined where to distribute them, and enterprises devised specific projects to utilize their shares. General managers then contracted with state construction directorates to undertake the work, which the directorates farmed out to regional builders. Thus, as with much else, investment flows were top-down; enterprises did not generate proposals to compete for funds, but did seek to increase their yearly allotments. Moreover, investment funds were “free money,” granted without interest, required to be spent over a project’s term, and loosely supervised. Annually, state planners created a new pool; annually, thousands of new projects commenced. The positive side of this exercise was that reconstruction was everywhere rapid and construction employment soared, helping all three nations achieve full employment. The problems, however, were many, including delays, fraud, waste, design errors,

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41 For an extended overview of this issue, see “How to Invest?” *Życie Gospodarcze* (Economic Life), 19 April 1964, TEOMEE, No. 324, JPRS 22465, 19 May 1964. For a contemporary analysis of construction’s significance in the PRC, see Kang Chao, *The Construction Industry in Communist China*, Chicago: Aldine, 1968. Chao notes that after 1949, construction “outstripped all other major economic sectors in growth.” (xiii)

42 Bela Czikos-Nagy explains: “[B]y eliminating the private ownership of capital and land, these production factors will be available to society at no cost. According to this concept, the use of collective capital, land, mining products, and other natural resources is free. New investments, too, are granted without the obligation of repayment.” BCN, “Certain Problems in Business Administration,” *Pénzügyi szemle* (Financial Review), 1 (January 1967): 1-14, TEOMEE, No. 675, JPRS 40438, 28 March 1967. For details on Czech investments in the 1950s, see Jan Michal, *Central Planning In Czechoslovakia*, Stanford: Stanford University Press, 1960, Ch. 8. Michal quotes the head of the State Planning Office: “We are building more, but the effect is less.” (181)

materials glitches, porous controls, poor quality results, and most painful, long lists of unfinished and abandoned projects. As one Polish commentator explained, capitalist building starts from the beginning, carefully examining the possibilities of the site, the needs of the client, the cost of every detail, etc; while in socialist building the job really begins from the top. First it is decreed that such and such a building has to be erected; then a plan is sent down, which is usually more or less unrealistic; a lump sum is appropriated for the cost, and the date is fixed on which the building should be ready. All the time, realities are significantly disregarded. The builders assigned to the job are in a grave quandary. They have to produce a building which is to suit its future purpose without deviating from the plan. Actually they never are able to follow this plan exactly, and changes have to be carried out in the course of construction. At the end a building quite different from that originally planned is handed over.

Hence, the debacle in erecting the Gdansk Trade Bank, “which had to be rebuilt three times at the cost of three million złoty” (roughly $250,000 in 1951), is understandable. Construction planners failed to “provide for the entire administrative section and a whole wing had to be added.” Walls, as designed, were “too thin” for the weight they would bear. Fortunately, these and other adjustments were retroactively approved by “control commissions” sent to inspect the work in process, and no one went to prison. Thus actually, “the range of discretion of managers was much greater than the legal provisions suggest[ed], since the planning procedures and controls were relatively new and imperfect and managers were forced to improvise when plans went awry.” Of course,

44 Though much of the literature on socialist construction has focused on dreadful housing towers and shortages, we should remember that the vast majority of construction was industrial, commercial, and infrastructural. (Housing came last among state priorities.) Hungary had an extensive Ministry of Housing and Public Construction by the early 1950s, but it focused only on public buildings. Other agencies sponsored construction in transportation (railways and bridges were considered crucial in the First 5-Year Plan), communications, agriculture and extraction. Also, Budapest’s MHPC coordinated with separate military construction units for everything from barracks to barriers. “Building Industry and Construction in Hungary Before the Revolution,” RFE file HU OSA 300-8-3, 15 February 1957. For Poland, see “Building and Construction Industry,” RFE File HU OSA 300-1-2-15638, 18 January 1952.


46 Ibid.

47 Alton, Polish Postwar Economy, 93
having to improvise meant taking risks, yet another reason for managers to shift responsibilities, avoid difficult projects, or seek covert workarounds.

A crucial shortcoming of first-phase construction planning routines was their failure adequately to anticipate system-wide demands, particularly for electricity. Hungary’s Agriculture Ministry commissioned scores of tractor stations in 1950-51, but builders soon discovered that the stations ‘would not receive electricity for several years,” obstructing maintenance and repair. This slip triggered plan revisions; later stations were placed only where electricity was available, but often this was not where the tractors were needed. The reporter concluded: “A person outside of Hungary cannot possibly visualize the chaos existing in connection with [this] construction work, …originally planned to be completed in 3-4 years. As the years pass the plans were being constantly changed, and not a single station was, in fact, completed.”45 Later writers agreed: “At present [1954] the hardest problem of the country is electric power. The use of electric light is restricted… but [this] does not help industry to any extent worth mentioning. Last winter a number of the factories worked at half their capacity owing to the shortage of electricity.”49 Or: “When the ambitious plan for the industrialization of Hungary was undertaken, the planners seem to have overlooked the problem of electric power. This has been the greatest bottleneck.”50 And another source of anxiety for enterprise managers, as power outages made plan fulfillment even more elusive.

Czech economist Ota Šik, in a televised 1968 lecture, summarized the dilemmas of first phase construction directorates:

Ultimately the imbalance in the economy hits the capital goods market – raw materials, components, machinery and spare parts grow scarce, or at least are not to be had in the places and times required. And this situation is reflected in the average length of our construction operations. The old system of directive management forced building enterprises to take on more work than they could handle, regardless of the shortage of building capacities and despite the inadequate

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and, worst of all, the outdated equipment. Since these firms were fairly well-equipped for earth shifting and the rough construction work, but lacked facilities for the craft and finishing jobs, they naturally put most of their energy into the first stages of building [which were] highly profitable for the builders, while they had to expect losses on the finishing work.\textsuperscript{51}

With floods of new projects budding every spring, construction managers walked away from half-complete jobs to start new ones; hence “enormous resources of materials and human labor have been frozen.”\textsuperscript{52} This opened the way for enterprise managers to improvise in getting the “finishing work” done, redirecting sums in construction budgets toward the informal or “second” economy. Enterprise workers were paid to hang doors or connect electrical outlets; quasi-legal outside contractors completed water piping and installed toilets. Comparable “arrangements” operated widely and quietly through the economy, as they were essential fixes for holes in the planning fabric.\textsuperscript{53} Central European communism indeed was, as Selucký noted, “a system that worked, more or less”; but it truly needed to work more effectively to sustain its jerry-built socialism. Thus, appropriately, a wave of reform initiatives emerged after Stalin’s death, with uneven effects across Poland, Hungary and Czechoslovakia.

**Section Two: Interlude – The Mid-fifties Crunch**

“Why is there a meat shortage in Poland? Because all the sheep are in the Party, all the oxen are in the production administration, and all the pigs and swine are in the government.”\textsuperscript{54}

\textsuperscript{51} Ota Šik, *Czechoslovakia: The Bureaucratic Economy*, White Plains, NY: International Arts and Sciences Press, 1972., 50. This volume translates six TV “talks” Šik delivered in Prague during June and July 1968, explaining to the public the need for major economic reforms. After the invasion, demonized by the new regime, Šik left his homeland and settled into a professorship at the University of St. Gallen in Switzerland. A survivor of the Mauthausen concentration camp, he had risen to head the Czech Academy of Sciences’ economics unit, advocating linking markets and planning and becoming a leading figure in the Prague Spring. Berend’s 1988 team echoed Šik, writing that, in the 1950s, “a great lack of balance developed in the Hungarian economy.”( JPRS-EER-89-083, 26 July 1989, 12.)

\textsuperscript{52} Ibid., 51.


\textsuperscript{54} “A Joke,” HU OSA 300-1-2-16876, 15 March 1952.
In 1956, Stalinism crumbled in Central Europe, following Nikita Khrushchev’s revelatory “secret” speech at the CPSU’s 20th Congress. Well, not exactly. Removing Stalin’s halo three years after his death hardly removed his adherents in multiple, increasingly-troubled regimes. However, it did embolden disgruntled citizens to challenge state power in ways unthinkable in the first postwar decade. Preparing for their 1956 party conference, Czechoslovak communists expressed publicly their “exasperation with the apparent incompetence and insensitivity of central planning bodies.” Planners demanded far too much paperwork, continually changed their guidance, and meddled in operations “at too detailed a level.” Moreover, their investment policies could not “prevent manufacturing industries being built up without any certainty that markets could be found.” The result was the Rozsypal reform, which economic managers drafted to partially decentralize the economy by placing more responsibility on enterprises to improve performance, all the while insisting on “inflexible prices” and retaining priorities for heavy industry, especially metalworking. By 1958, ministries had been reorganized and the grand ambitions of the early postwar era had been set aside, but “actually no essential change was made” in the planning mechanism.55

As for Poland, Bolesław Bierut, a former President, reliable Stalinist and General Secretary of the Polish CP, died suddenly in Moscow soon after “the speech.” Party hardliners at home tried to deflect a surge of anti-Russian and anti-government activism by blaming their nation’s difficulties on Jewish traitors and conspirators, but this fell flat. Instead, the regime fractured and destalinizers maneuvered to release thousands of political prisoners jailed years earlier as pro-Nazi (chiefly one-time members of the non-communist resistance). By May 1956, the usually-tame press published “blunt attacks on the dreadful waste and inefficiency of the Polish economy,” iconically its Żerań auto plant where every car cost 50 percent more to produce than its selling price. A Poznań upheaval soon blew the lid off, as 16,000 men at the Stalin Metal Works struck in June, after Warsaw administrators’ dismissed their demands for wage hikes, suspension of increased work norms and refunds for improperly-deducted taxes. Their spontaneous

55 Myant, Czechoslovak Economy, 77-89. See also John Stevens, Czechoslovakia at the Crossroads, Boulder, CO: East European Monographs, 1985, 70-80. Myant comments: “In practice, the reorganization probably made no difference to the performance of the economy.” (123)
march to the city center turned nasty once a rumor circulated that their negotiators had been arrested. When part of the crowd besieged the headquarters of the despised secret police (U.B., Urząd Bezpieczeństwa), officers inside responded first with fire hoses, then with bullets, provoking unholy mayhem. Warsaw soon ordered “special security troops” to restore order, which they and their tanks did, after over fifty deaths, with hundreds wounded. Frightened Party leaders’ desperately blamed “imperialist agents” for the debacle, rather than acknowledge planning-induced poverty and official boneheadedness.

The Central Committee switched tactics in late summer. It restored former First Secretary Władysław Gomułka, once jailed for political heresies (1951-54), to Party membership and then to his erstwhile post; but the summer turmoil had unsettled the Soviets. Before taking office, Gomulka had to deflate a possible invasion, something achieved on October 19-20 in a perhaps-romanticized, all-night-long, face-to-face confrontation with Khrushchev, Anastas Mikoyan, Vyacheslav Molotov, and Marshal Ivan Konev. Before dawn, the parties agreed that Poland would cease overt anti-Soviet activities and in return would secure “internal independence” from Soviet intervention. The first evidence of this freedom came immediately; Gomulka declared that agricultural collectivization would be halted, indeed reversed. Within a year, 85 percent of Poland’s collective farms were “disbanded” (and the U.B. was “liquidated.”). But there was no broad economic reform, just a vague pledge of greater democratization. Although Poland nurtured accomplished socialist economists, work by Oskar Lange, Michał Kalecki and Włodzimierz Brus had its chief policy influence elsewhere, not least in Hungary.56

As in Poland, Hungary’s 1956 uprising commenced with state security police (ÁVH) firing on a demonstration, but it had stemmed from many sources, including low wages, stagnant living standards, pervasive shortages, ideological rigidity, and an unresponsive “apparat.” That October Ernő Gerő’s government collapsed, and

spontaneously-formed militias attacked Party and ÁVH facilities, welcoming police and soldiers to their ranks. Two weeks after backing away from a clash with Poland, the Soviets’ Marshal Konev invaded Hungary, displaced the rebels’ provisional government under Imre Nagy, and seated Party First Secretary János Kádár in the Prime Ministerial chair. With perhaps 10,000 dead, over 25,000 imprisoned, 200,000 streaming into exile, and the Army purged for disloyalty, the nation was shattered, as in 1944-45. Overlooked in the international opprobrium leveled at the Kádár regime was its pledge to rework economic relations and improve everyday life, even as it thoroughly crushed political opposition. Thus economic reforms which fostered a relatively-flourishing economy into the 1960s followed the destruction of all initiatives for political change.

As Berend’s 1988 team concluded, Hungary’s planning policy changes reflected “criticism of earlier practices… which were reluctantly and hardly ever publicly called Stalinist.” They included “giving up industrialization at the expense of living standards and supplies, one of the most important factors in the storm of mass uproar against the regime.” This materialized in a roughly 18 percent wage increase (1957) and “a moderate but constant improvement of living standards” thereafter. A renewed emphasis on agriculture, including subsidizing cooperatives and collectives, rapidly expanded grain and meat output, with food shortages ending by the mid-1960s. Yet, on balance “the post-1956 corrections in the system of command planning did not work.” Heavy industry investment did slow, infrastructure spending remained “disproportionately and unjustifiably pushed to the background.” Road and rail transport, communications, electric, water and sewer facilities lagged badly. As well, the “frozen capital” trapped in unfinished projects and useless, low-quality goods accounted for seven percent of “national revenues” in the mid-sixties, double military expenditures. This “planning and management system, maintained for a decade after 1957, [plus] the rejection of a genuine reform, and the complete lack of change in the economic institutional system,” assured “the continuity of the Stalinist economic model.”

A second major reform came in 1968. So in the wake of the mid-fifties crises, we have cosmetic reform in Czechoslovakia, resurgent national communism and agricultural revisionism in Poland,

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and a better-wages-and-consumer-satisfaction strategy in Hungary, that, while augmenting food production and under-funding infrastructure, left the first era planning system in place. Still, now there were divergences among three nations whose business and planning systems had marched nearly in lock step. In agriculture, for example, the Czechs would complete full collectivization, Poland reverted to an quasi-market supply network centered on co-ops, and Hungary sponsored a shadow collectivization which preserved family farms and private livestock ownership. Other trends toward individuation paralleled these (e.g., differential dependence on materials and goods from the West); but in all three states, managerial competence became gradually more essential than political enthusiasm and connections.

By the sixties, products from a range of high-profile SOEs reached Europe-wide standards of quality, a substantial achievement given 1945’s fields of rubble. Deeper system deficiencies threatened such advances, however, notably structural “biases” toward overinvestment in familiar targets or against the risks of experimentation and the disruptions accompanying adopting new technologies. Central Europe’s awkward, uneven takeup of digital computing would be one consequence. As digitization gathered speed in the advanced capitalist world, gaps widened with the ‘actually existing’ socialist republics and among them.\(^{58}\) As well, commitments to full employment and labor-intensive operations, along with managerial incentives to enlarge workforces, had exhausted the employable populations. Hence, installing labor-saving technologies beckoned as the path to lower costs, higher productivity, and export effectiveness.\(^{59}\)

Managing communist businesses, ca, 1958-70, was no longer accompanied by fears of prison terms; but as enterprise challenges got tougher, finding a quiet niche where tried-and-true routines weren’t threatened proved harder and harder.

**Section Three: Stumbles and Successes in the 1960s**

Given the above-noted divergences, we will focus here on each of the three people’s republics in turn, starting with **Czechoslovakia**. Shortly after 1968 invasion,

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\(^{58}\) For an optimistic, if naïve, view by two Polish economists, see Tadeusz Jaegermann and Józef Pajestka, “Use of Electronic Computers in the Management of the National Economy,” *Ekonomista* (The Economist), No. 4, 1962, TEOMEE, No. 125, JPRS 16679, 14 December 1962.

\(^{59}\) Nuti, “Contradictions,” 252-56.
Jaroslav Jirasek, director of Prague’s Engineering Research Institute, reflected critically on his nation’s economy:

We have a special type of prosperity: Everybody is making money, nobody is losing. But the moment we enter a demanding market, our national labor can be converted, as a rule, only at a loss…. We have [transformed] our economy into a greenhouse of its own kind, a greenhouse which is well irrigated and heated, but which cannot stand the inclement weather of the world…. Since the economic collapse of 1962-1964 (which, incidentally was the greatest collapse among the European economies since the war), we are pursuing a policy of postponed offensives. We are consolidating, stabilizing, but we are not changing… Distribution is ahead of creation all the time.60

In 1963 Czechoslovak national income actually dropped, so with the 1964 upturn came recognition that growth was not automatic under socialism and that substantial economic restructuring had to be considered. Two related issues beckoned: the necessity of “intensive” economic methods, underpinned by labor-saving technology (from turret lathes to adding machines), which would force layoffs and factory closures; and the overhang of obsolete equipment everywhere, which would demand massive inputs of replacement capital. On the first count, during 1964, planners announced shutdowns for 2,700 mostly-small “production units,” due to gross inefficiency and persistent losses. Their 83,000 workers would relocate to new, technology-intensive plants. Two years later, more than half of these targets were still operating (with 50,000 workers), as the question of where to reassign the labor force could not be solved.61 Not only had the new plants not been built, the machinery problem had become acute. Appropriate, advanced equipment could readily be obtained from West Germany or France, but only if paid for in scarce “hard money,” as the koruna (Kc, crown) was not a convertible currency.62 Sadly, a 1964 survey of Czechoslovak shoemaking showed that


62 Refusing convertibility was a strategy COMECON states used to insulate their economies from importing capitalist-world inflation. Keeping prices stable was a fetish for decades. For the USSR, it also structurally reinforced Central European dependencies on Soviet resources, along with military and commercial demand.
40 percent of all machines “would need to be discarded by 1970, but authorities had no idea...how to replace them.” In textiles, 7,000 nineteenth century looms were still running, whereas over 60 percent of food processing equipment was “worn out.” Because of frequent breakdowns in manufacturing facilities, “maintenance alone claims 300,000 of the not quite 1.9 million workers employed in industry.” Capital spending was heavily biased toward new construction, not machinery replacement, while machine repair was specifically excluded from investment expenditures. Therefore, in this stalemate, senior planners announced that the best prospect for technical upgrades lay in “substantial state loans from advanced Western countries,” an impossible task given domestic politics.

So what were Czechoslovak enterprise managers doing, facing such situations? For the most part, they fought reforms that would add to their risks and responsibilities, such as undertaking market surveys and creating advertising or initiating independent import-export units, even as foreign sales became crucial. As usual, they plowed ahead with efforts to meet (or just barely exceed) plan quotas, whether or not their products were in demand. Indeed, a Polish visitor noted that though Czechoslovakia’s “national income” rose by 15 billion korunas in 1967, of this gain, some 11 or 12 billion “were accounted for by production which remained unsold (increase in stocks)... Foreign trade made no contribution to alleviation of the situation.” RFE researcher Harry Trend confirmed this, adding that “accumulated unsold inventories were valued at 200 billion

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63 Michal, Central Planning, 173.


65 As for what planners were doing, see George Feiwel, New Economic Patterns in Czechoslovakia: Impact of Growth, Planning and the Market, New York: Praeger, 1968, an exhaustive study.

66 Josef Polacek, “How to Proceed with Our Advertising,” Podniková organizace (Enterprise Organization), 20 August 1968, TEE-ELA, No. 46, JPRS 46768, 29 October 1968. Polacek noted that since 1938, “our advertising stagnated and held itself merely on the sideline of business activity. The attempts to kill it alternated with the ones to revive it.” Writing just before the invasion, he celebrated the “few veterans” and “new enthusiasts,” but castigated “the mass of uncrystallized, often groping officials and artists who have gotten into advertising through various twists of fate, often against their will.” See also Philip Hanson, Advertising and Socialism, White Plains, NY: IASP, 1974. On socialist foreign trade, see Marie Lavigne, International Political Economy and Socialism, Cambridge: Cambridge University Press, 1985. Lavigne introduces the notion of “socialist multinationals” to conceptualize export relations with developing nations (170f).
crowns, a sum equivalent to the entire Czechoslovak national income in 1967!\(^{67}\)

Construction operators continued to overbill, “lose track” of materials, and manipulate the system – collaborating with clients to generate invoices “for work not done” plus materials and overhead, which helped “fulfill” the planned output targets,’ or selecting only jobs “involving high consumption of materials and a relatively small proportion of wages,” so as not to exceed wage budgets while rapidly reaching “total value” goals, protecting bonus payments.\(^{68}\)

But all was not grind and grab. At Czechoslovakia’s biggest industrial firms, and in the related metalworking, machinery and machine tool trades, managers took seriously reforms that increased their autonomy. Moreover, within one of the giants, a budding electronics unit innovated briskly, in part by cheerfully breaking administrative rules.

Here, pace Jiřísek, creation ran ahead of distribution. In this scrum, an industrial elite emerged, a set of firms and managers who stepped past indifference and risk aversion. This was not random. In light industry, extraction and agriculture, long starved for capital allocations, plodding along was a standard management motif, and corruption was a routine means for coping. However, in large and technologically-demanding enterprises, particularly in metalworking and electrical domains, managers benefited from “top-down financial support and extreme vertical integration, [which] facilitated close collaboration among researchers, engineers, designers, and machine builders and users.”\(^{69}\)


was world-class product lines, sustained innovation, and effective export ventures – insufficient to raise all boats, but not negligible.

A 1967 delegation of Hungarian engineers toured a dozen “heavy industry” plants in Czechoslovakia and reported their impressions in the technical journal *Gépyártás-Technológia* (Mechanical Engineering Technology). At the Škoda Works in Plzeň (Pilsen), they found 19 sprawling factories, connected by extensive bus routes, employing 60,000 workers building locomotives, buses, trucks and automobiles, turbines, heavy machine tools and “atomic reactor equipment.” Management had made significant “organizational changes” in the last year. “The centralized main sales office was dispersed and now each production branch has its independent sales office… Directors of independent units are authorized to contract sales and have their own budgets,” needing only a general manager’s authorization to exceed them, not the Ministries’. Earlier, the Activities of the former centralized sales office were mainly administrative; each transaction required the presence of technical experts, which [led to] delayed agreements and sometimes, due to lack of expertise, cancelled orders. Plants had no interest in sales; they only made demands instead of giving help. Moreover they tried to avoid the responsibility of new products. In the new system the mentality of plants and factories has changed; they manage their [own] sales, bear the costs of investments, appoint experts on sales, often make salesmen – after suitable training – out of designers. Plant managers inquire about world markets and send experts abroad to study.70

By 1969, 57 percent of Škoda’s “economic management workers” had taken business or study trips to other socialist countries, 34 percent to capitalist countries. Only one was a woman.71

At Prague’s TOS-Hostivar machine tool plant, the Rozsypal reform was having worthwhile effects. The company had reorganized tool repairs “according to specialty,”

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with its team overhauling all the nation’s grinding machines, its production specialty, as
other enterprises focused on rebuilding “lathes, milling and boring machines.” Here
centralization and decentralization fused with entrepreneurial ventures, in a nationwide
scheme for distributing tool rebuilding by machine type. At TOS:

Some 10 to 15 more [standard] machines were made than planned, and stored. If a
factory sends in a grinder for overhaul, they at once receive a new or perfectly-
overhauled grinder on loan and thus avoid idling. This is lucrative for [TOS]; the
customer gladly pays a higher price to avoid lowered machine capacity due to
repairs… Contact with foreign trade improved. One premium condition for the
management is fulfillment of plans of the Strojimport Foreign Trade Co. Its
commercial section is responsible for the customers; engineers personally visit
[foreign] factories, discuss technical and other conditions, [and] choose machines
together for efficient and exact performance… The distribution of ordered reserve
and replacement parts is excellently organized… Two Strojimport employees
work in the [TOS] plant full-time and deal with export matters.\footnote{Ibid., 16. (emphasis added) A key supplier for tool and machinery builders was \textit{Závody na výrobu ložisek} (Bearings Manufacturing Enterprise) which now, as then, operates at Považská Bystrica. In 1967, it had 25,000 workers, eight plants, two research institutes and a sales organization. ZVL offered “3,000 standard sizes” and marketed them globally. See Jozef Vavinrek, “Concept, Role and Development of the Czechoslovak Bearing Industry,” \textit{Hospodářské noviny} (Economic News) 17 November 1967, Translations on East European Machinery Industries, No. 43, JPRS 43744, 18 December 1967.}

Strojimport was the republic’s dedicated machine tool export agency, tasked with
“the development of foreign markets,” but also with sharpening effective operations at
tool building plants. Its general manager, Luděk Kratochvíl, in a 1969 interview, stressed
that the company needed “skilled experienced workers for assignment to posts as
technical managers,” so as to improve the “technical services we extend… to customers.”
Strojimport did face challenges on the production side, having in 1968 lost “orders
totaling three million dollars… owing to [builders] absence of flexibility and adaptability
to the requirements of the foreign customers.” Kratochvíl’s goal:

We intend to change the enterprise’s inner management system so as to create a
healthy atmosphere for individual enterprise and initiative of the workers. I wish that
all workers at all levels would stop being afraid of the risk inherent in business
activities. In my opinion, the greatest risk for the enterprise and every individual
concerned is the risk that results from doing nothing.\footnote{Václav Holy, “Strojimport’s Activities and Plans Discussed,” \textit{Noviny Zahraničního Obchodu} (News of Foreign Trade), Prague, 22 January 1969, TEE-EIA, No 102, JPRS 47706, 24 March 1969. The firm continues today as an agent for Czech machine tools, now as a subsidiary of the TOSHULIN machine tool corporation, Prague. See \url{http://www.toshulin.cz/} (accessed 4 February 2016)}
Strojimport managers were indeed ambitious. Within five years, after sponsoring “a party of 26 executives from leading UK engineering companies on a visit to four machine tool factories” in Czechoslovakia, copying Japanese practice by Mitsui, Mitsubishi and Sumitomo, they mounted a London rollout exhibition of 20 tools worth an estimated £350,000, including 14 models “not previously seen in the UK.” Peter Long, a British tool dealer, welcomed the Strojimport executives: “There are thousands of Czech standard lathes, mills, and drills operating in the UK, and the quality and value for money of their machines is renowned.” Such management practice stood quite some distance from fiddling construction invoices or warehousing ugly cotton dresses.

Comparable capabilities were displayed by forklift manufacturer Desta in northern Bohemia, slated for closure in 1960 by the Minister of Engineering Industry – until the manager sent to dissolve it led an initially-unauthorized turnaround. He “found a number of strengths and business opportunities in the firm with which he was able to develop a committed management team.” Together they undertook “vigorous design development and product upgrading” of the firm’s much-in-demand materials handling equipment. By the mid-sixties, the central government’s Institute for Management required that CEOs and top managers, including Desta’s new boss, undergo six months of professional training. The course covered marketing, accounting, operations research, R&D management, personnel, “international business negotiations… time management and English. Like all the other top managers, he was then sent to the United States for a four-week study visit.” In 1970, Desta ranked second or third in the worldwide forklift industry, though its aggressive leader was “virtually expelled from the firm by ambitious lower managers” after the Warsaw Pact invasion.

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75 Considerable public discussion of managerial training and the profiles of effective managers was in process by the mid-1960s. For an effort to assess/adapt U.S. practices, as well as to outline the social psychology of leadership, see Jiri Khol, “Management Personnel and Activity,” *Hospodárské noviny* (Economic News) 17 November 1967, TEOMEE, No. 784, JRPS 44032, 16 January 1968. Khol’s long essay was published as a special supplement to Prague’s weekly economic magazine.
It remains unclear how much the re-Stalinization (“normalization”) of Czechoslovakia affected assertive enterprise managements like these, but the entrepreneurial semi-conductor developers at CKD in Prague would surely have had to keep their heads down. CKD was “the country’s second largest industrial concern, after Škoda,” building compressors, pumps, conveyors, electric and Diesel motors, and even streetcars, with 48,000 workers and five research institutes.\(^77\) Jaroslav Kolar, deputy-manager of CKD’s electronics project, explained its origins in central planners’ 1963 repurposing of a older factory,\(^78\) a “switch from the production of motorcycles to that of semi-conductors.” Electronics specialists had realized that “without mass production of semi-conductive high-voltage parts, progress is simply not possible in our engineering fields.” Hence the CKD research team, which had been tracking the Western germanium-to-silicon transition, commenced prototyping semi-conductors by 1964 and manufacturing in 1965. Worker retraining was fundamental. Motorcycle “craftsmen and workers used to a production line had to become tool-makers, since each piece produced was in fact a prototype. Completely new production lines had to be built almost from scratch. This we did all by ourselves.”\(^79\) By 1966, the semi-conductor unit was running without state subsidies while cutting wholesale prices by 15 percent a year.

The group took chances, echoing tactics pioneered by Andrew Carnegie and Henry Ford, but in a sharply-different environment:

I recall, for example, when in 1965 we deliberately took a calculated risk and permitted a single planned loss. Until that time we produced diodes with alloy technology... However, it appeared more advantageous to switch to diffusion technology if we did not want to assume a more dangerous risk, namely the risk of lagging behind world development. The profit which the new technology brought to

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\(^78\) This was Jawa motorcycle, an internationally-successful maker, whose bikes were exported to over 100 countries in the 1950s. Jawa relocated to a new facility at Týnce nad Sázavou, about 30 miles south of Prague, where it continues to make high-quality motorcycles. See https://en.wikipedia.org/wiki/Jawa_Motor

\(^79\) Zdeněk Škoda, “Problems in Semi-Conductor Production in Czechoslovakia,” Hospodářské noviny (Economic News) 20 January 1967, Translations on East European Electronic and Precision Equipment Industries, No. 7, JPRS 40172, 8 March 1967, 1-15, quotes from 2 & 4. It should be understood that CKD was making electronic devices for machine controls and servos, not computer components.
us in 1965 exceeded by three times the loss caused by the rapid switch to new techniques.  

Responding to quickly changing demand was crucial. This necessitated achieving “flexibility, and pay[ing] more attention to merchandising, short-term market research, and long-term market estimates,” less to traditional sales planning. For Kolar, at base: 

the past system has not created proper conditions for prompt application of the latest technological achievements. Starting new production has often been difficult because of cumbersome regulations; production plans put emphasis on volume regardless of the optimum production structure… regardless of long-term prospects… [I]n the field of semi-conductors, revolutionary discoveries of fundamental importance may literally be made overnight. [These] profoundly affect our estimates of future market capacities. I explicitly refer to “market capacities” and not to “market needs”, which most people… identify with customers’ estimates and requirements.  

CKD semi-conductor managers inverted standard planning practice, designing and producing for applications that did not yet exist, for “future market capacities.” They could not do this by following the system’s rules.  

[I]t is not overcautiousness and strict compliance with all existing usages and regulations, but a sound and well-calculated risk in our ventures that is the only guarantee of success. We have also found that to manufacture products to the highest technical standards to match those made abroad – and to manufacture them not in laboratories but on a mass production basis – was, under specific Czechoslovak conditions either utterly impossible, or possible only by disregarding a number of existing decrees and directives on technological discipline, permits normally required for starting new production, procedures for approving capital investment projects, minimum delivery periods set for the sub-suppliers, and by carrying out certain technological changes at breakneck speeds. Yet, we have deliberately assumed these risks. To be sure, a victor is never punished…

Steve Jobs could hardly have said it better.

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80 Ibid., 4.
81 Ibid. 8.
82 Ibid., 12. CKD Semiconductors continues manufacturing in Prague, since 2006 as a subsidiary of the Zurich-headquartered ABB Group, focused on robotics and automation technology. See https://library.e.abb.com/public/625b58f7a00325e3c125787800314d1e/CZSEM_General%20Presentation_FINALv5_Nov13.pdf
CKD’s brashness in “disregarding” ministerial rules and controls was hardly general, but enterprise managers’ hostility to their overseers certainly was increasing. In 1969, the “normalizing” administrators introduced a system of Ministry-enterprise agreements, “outlining the basic tasks and conditions [for] carrying out plan requirements.” After “negotiations with the general managers in industry, the construction sector, and commerce,” about 70 deals were finalized, but only once the GMs secured clauses promising “an increased commitment on the part of Party functionaries… to fulfill the[ir] obligations.” Previously, Ministries had inserted “loopholes” in plan documents “which made it possible for [them] to shirk their responsibilities with regard to supplies, deliveries by cooperating enterprises, and imports necessary for production.” This had to end. RFE’s Harry Trend summarized: “The distrust of ministries by enterprises has a long history: it is not the result of the short experience with ‘agreements’ since July 1969.”

83 Czechoslovak managers had begun contesting the terms on which their firms would operate, something novel and likely unsettling to directorates and central planners. How that tension played out in the 1970s is, however, beyond this essay’s scope.

Poland, vastly more agricultural (plus 85 percent of farmland was in private hands in 1950 and 1980 alike84), encountered distinctive managerial (and political) obstacles in the 1960s, but its planning bungles, construction stumbles, and reorganization initiatives seem more acute than those elsewhere in the region. In 1962, for example, a Warsaw survey reported a massive managerial turnover.

There is a tremendous fluctuation in the managing positions of industry, sharpening – or even causing – some of the shortcomings in production and control. A representative examination of 112 Warsaw enterprises showed that 2134 employees were dismissed in the course of two years. Among them were 55 directors, constituting one-half of all directors, 118 chief and senior accountants (so that on average not one managed to keep his job for more than two years), 462 personnel managers, 218 plant managers, 146 warehouse managers and others.


The Polish economic authorities are well aware of the detrimental consequences of such a fluctuation; however, they can hardly be avoided.85

Nothing comparable was reported in Czechoslovakia or Hungary. Most likely, many politically-appointed managers had been exposed as ineffectual or incompetent. Still, it had been over a decade since capitalist-era managers had been replaced, so why this wave of dismissals only in 1961-62? One major background condition had changed. As of 1958-59, managers would not be evaluated chiefly on meeting plan targets. Instead, major weight would be placed on enterprise profitability, meaning as in the West, whether the value of outputs stood above the cost of inputs (and by how much). Polish managers had no experience with production costing86; meeting total value or tonnage targets had been sufficient. Moreover, three early 1960s miseries also exposed managers to criticism and dismissal: quality deficiencies, absenteeism, and worker turnover.

Late in 1961, the Polish newspaper Dziennik Polski (Polish Daily) identified low product quality as “our common nightmare”. Only half the goods manufactured under state price-control regulations met “the quality standard,” making exporting less effective than in Czechoslovakia. Indeed, some plants turned out 90 percent rejects, from foundry castings to women’s wear. Moreover, “foodstuffs, such as bread” were drawing a tide of complaints,87 unsurprising as 40 percent of Poland’s flour failed to meet government standards. Of nearly 9,000 sausages inspectors tested, “53 percent showed deviations”; among those provided by farm co-ops, the failure rate was 68 percent. Poor quality metalworking was especially unnerving, given other sectors’ reliance on components. A 1959 analysis acknowledged that “Many complaints with respect to the quality of metallurgical goods are received from the electrotechnical, motor, precision, railroad car,  


86 The Soviet notion of Khozraschet, a combination of cost-conscious budgeting and accountability, had circulated, but a focus on the latter was more prevalent. Discovering why plan targets had not been reached was a political issue, not a matter for accounting analysis in this period. For clarification, see Robert Campbell, Review of “Planning, Profit and Incentives in the USSR,” Slavic Review 27(1968): 669-71; for an inside overview, see Czesław Bobrowski, “The Development of Planning in People’s Poland,” Economista No. 5, 1964, 976-1006, TEOMEE, No. 440, JPRS 28763, 16 February 1965.

87 Strobel, “Problems and Reform Measures.” That farmers still largely sowed grain by hand resulted in an annual waste of seed estimated at 100,000 metric tons.
screw and cable construction industries, and the like.” In agriculture, simple tools “such as plows, horse-drawn rakes, threshers, mowers, and even the C451 tractors, produced for many years by “Ursus”, are of poor quality.” To improve profitability, reject levels had to fall and employees had to be both more productive and more careful.

This was unlikely. Industrial workers were often absent and quit rates were high, patterns western commentators credited to the Gomulka regime’s commitment to full employment and its abandonment of reprisals. For example, in summer 1957, Radio Warsaw revealed a regular 25 percent absenteeism rate in a Wroclaw (Breslau) metal plant, 20 percent in Poznań’s Harvesting Machinery Factory, whereas the Party newspaper confirmed that daily no-shows in Łódź textile mills averaged 18 percent. In planting and harvest seasons, disappearances were usual on Fridays and Mondays among the “demi-proletariat,” factory workers maintaining a private farm where their families resided. Among city folks, wage competition from part-time work in “the quasi-legal private economic sector” reinforced skipping regular work for better-paid (and untaxed) home, appliance, and vehicle repair, fueled by “mass pilferage of raw materials.”

As for turnover, the situation was stark:

On the average every third or fourth worker in the industrial group changes his place of work during the year. In 1961 [there were] 591,797 such wanderers and hunters. [They often rotate] from the Mechanical Factory “Ursus” to the Warsaw Mill, from the Warsaw Mill to the Automobile Factory Żerań, from the Automobile Factory to the Warsaw Motorcycle Factory and from the Motorcycle factory to “Ursus” again.

Personnel managers estimated the per-worker expense for replacing and retraining a ‘quit’ at 3,000 złoty, totaling 1.8 billion złoty annually (at a minimum, as some persons quit more than once in a year). Beyond the expenses, departing workers left projects unfinished, had lower initial output at their new jobs, and often needed time to learn new

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89 “Poland’s Absenteeism Problem,” Background Report, 26 August 1957, HU OSA 300-8-3-4215.

skills when positions utilizing their current capabilities were not available. One typical management practice that sent workers out the door was personnel managers canceling or reducing worker bonuses arbitrarily, in the name of “payroll thrift,” even though few proletarians could live on their base pay rates. Unable to solve these and other workplace challenges, thousands of Polish managers lost their places in the early 1960s. Where were their replacements to come from?

As elsewhere, planners and directorates emphasized management training. In the immediate postwar, due to shortages of professionals, “a hasty training program was started, which included people who did not have even a primary education,” but were reliable Party members. Before long, Party “Know-nothings” constituted an overwhelming majority of directors, chief engineers and chief bookkeepers… The severe economic crisis of the years 1954-56 was certainly attributable in part to incompetent management.” One result was the 1958 creation of Warsaw’s National Management Development Center, following a visit by International Labour Organization head David Morse. Industrial employment had soared from 1.2 million in 1946 to nearly three million, Polish universities had no adequate management programs (though their engineering curricula were sound), and the informal courses sponsored by institutes and firms proved highly erratic. With a $900,000 grant from the UN Special Fund, the Center sent 48 Polish “experts” to 6-month management study courses in the West. Another 160 received training in management education by visiting Westerners, including computer basics and instructional techniques, the goal being to develop both professional managers and a Polish management faculty. Supplemented by $3 million in national funds, the Center had 1700 graduates in 1962 & 63, 2400 in 1964 & 65, while training instructors for regional units across the nation. As an RFE analyst noted: “[T]he old apparatchiks are still well in the saddle, but the Party authorities are beginning to put professional education before Party membership.”

91 One element of logic in the Warsaw “route” was that all four plants were involved in vehicle or machinery assembly, so that inter-firm skill transfers were not a big challenge for line workers or for machinists.

92 Gutowski, “Employee Turnover.”

Polish enterprises still faced more troubles than this growing cohort of trainees could address. OZOS, a massive vehicle tire plant erected near Olsztyn in northeast Poland and designed for annual output of two million units (56,000 tons), grandly opened on 28 October 1967. Yet the chief director acknowledged: “On that day we succeeded in manufacturing only several dozen tires. The actual technological start was delayed by almost three months.” The plant missed its November/December plan target, also: “We were supposed to supply 40,000 tires, but we manufactured only 16,000, of which only-one third were fit for use.” Its 1968 output barely reached half of the goal, utilizing just 30 percent of production capacity.\(^{94}\) What was the matter?

First, planners had mobilized the required 2300 workers from regional small towns; but 40 percent turnover soon emerged, “because the work is done in three shifts, the workers’ families live far away, [and] there is a long waiting period to get an apartment [only 400 workers’ rooms had been built].” A Warsaw reporter asked a local garbage man earning 1200 zlotys monthly, why not take up the plant’s offer of 1400zl to startup trainees. The reply: “why for the return bottles that I collect daily I get on average 100 zloty. Well, there are no bottles at the tire factory.” An industrial locksmith had no interest in the new plant, either, due to rotations onto night shifts. Also, “when you work on an assembly line, you have no time for a beer break or to smoke a cigarette in peace.” Second, OZOS managers had been poorly prepared for their jobs – one had years of administrative experience, but in pharmacies; another was a chemist in a carpet factory. Master craftsmen did better, “learning the tricks of the [tire] trade together with their subordinates.” But overall OZOS couldn’t meet its quotas because its managers were “not ready to start regular production” and because, once it did start, they couldn’t keep their workers on the job.\(^{95}\)

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\(^{95}\) Ibid.
Better results could be found in the chemical sector, following investments in and construction of a world-class nitrogen fertilizer plant at Puławy in the east, using piped-in Soviet natural gas. “The area where the forest was sighing eight years ago is now covered with buildings, machines, and pipes of a total weight of 102,000 tons,” an engineer wrote in 1969. Work on a second facility had begun at mid-decade:

Most technical and other equipment was bought abroad to guarantee a high engineering level of these machines and apparatuses. The designing of Puławy I took two years, of which one whole year was used for getting approvals. To make an end to the often-superfluous red tape, it was decided that Puławy II would be designed and built by bypassing the jungle of rules and regulations. In other words, the combine was permitted to avoid reefs spiked with paragraphs.96

Top managers cut deals with ministries to “issue special regulations” to confirm the second plant’s “exceptional situation,” said Master Engineer Zbigniew Schimmelpfennig. Puławy I & II’s fertilizer output would increase farm yields by 4.5 million tons annually,97 a result hard-driving engineers achieved by disregarding central ministry controls, as at CKD semi-conductors.

If Polish planners sometimes mis-located plants or presented obstacles managers steered around, at other times their systems of rules, rewards and sanctions proved simply perverse and interfirm relations maddening. These frustrations all intersected at the BZUT heavy machinery factory in Bytom, Silesia. By the mid-60s, BZUT had specialized in building “standard gear transmission assemblies,” whose prices had been fixed a decade earlier, although production refinements had reduced expenses. By 1965, the plant made “a 20 percent profit” on Model 301 gear sets “for sugar refineries,” and was introducing a larger, higher-power Model 302. Here commenced serious difficulties:

The production costs of the new transmission assembly (on the basis of which their price has been established) are much lower than those fixed long ago for the 301, but higher than [its] present production costs. As a result, BZUT has to sell larger, more modern 302 types 40 percent cheaper than the 301s. Thus the startup of new production hit the plant in the pocketbook… Of course, in this situation demand increases for the cheaper assemblies, which are designed for transmitting

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97 Podwysocki, “Past, Future Goals.”
more power. Therefore, the more orders there are for the 302, the fewer are received for the 301, and the more difficult it is for the plant to fulfill its production plan.

This makes no sense in capitalist economic terms, certainly, but the planning paradox shines through when we learn that BZUT’s plan goal was set in sales value terms, not as in earlier years, in physical outputs (tons of machinery). Plan underperformance stemmed from selling better, more powerful, and cheaper gear sets that generated fewer zlotys. “He who produces more cheaply must produce a larger number of items… in order to attain the same total production value under the conditions of differently calculated prices.”

Perverse incentives abound within such planning schemes.

Inter-firm relations were more straightforwardly infuriating. BZUT regularly received materials only after delays and always “in amounts smaller than requested.”

Orders for materials are automatically adjusted downward by their recipients. One orders 20 tons of castings and receives 10; 20 drill bits are ordered and only four are delivered. This method of trimming down supplies is senseless. [In consequence] orders are placed in excess of real requirements, with the result… that supplies are received by those that have the push and not by those who genuinely and urgently need them.

In a particularly galling case, BZUT ordered 20 gear set housings and 20 covers from a supplier, with a 90-day delivery date for the first 10 pairs, 9 months for the rest. Instead the contractor shipped 15 housings and five covers at the first deadline. BZUT could complete only five gear sets, as “10 idle housings burden its materials account.” Worse, BZUT “cannot refuse to take delivery… and must pay for it in full.” Also aggravating were suppliers reaching their own goals by shifting work and costs.

From another plant, the BZUT receives shafts not forged to the required dimensions. Tons of iron must be cut out of such shafts in order to bring them to the required size. The supplier does not only save on labor, but will be paid more for the entire tonnage, and will fulfill all the easier and faster its own production plan, which is based on the weight of products sold. In addition… the BZUT must put in unscheduled labor of its own for which no one [else] will pay.

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98 Jerzy Burzinski, “Problems at the Bytom Engineering Equipment Plant,” Życie Gospodarcze (Economic Life), 19 September 1965, Translations in East European Heavy Industry, No. 245, JRPS 32575, 27 October 1965. This is a particularly rich account of tangles between technical upgrading, which adds to labor and materials cost and improves quality, and the rigidities of planning requirements.

99 Ibid.
BZUT managers sought a shift of their production norms away from sales value, so that “undertaking the production of more modern items fetching lower prices… would cease to hit the plant” through plan underperformance, though this would not address perennial “supply difficulties.” As a medium sized firm (with under 1000 workers), BZUT did not have the clout to resolve either issue.

Managers at Poland’s industrial giants were also driven to distraction by comparable planning disincentives during the Sixties. Consider Poznań’s Cegielski, with 10-20,000 workers building marine and diesel engines, railway cars and machine tools, and Warsaw’s Ursus, the giant tractor builder. Weight-based pricing for Cegielski’s tools reflected relative complexity – 26 zlotys per kilo for drill presses, twice that for turret lathes, and half as much again for automatic lathes. Yet that ladder failed to reflect the differential labor inputs for the three. With these weight-prices, one hour’s labor realized 80zl for automatics, 104zl for turrets, and 132zl for drills. Drills made profits. Automatics represented progress, but lower returns. Hence automatics’ share in total output dropped, 1961-63. As at BZUT, castings and forgings suppliers pulled their overweight tricks, but the effect was more complex, in that Cegielski built 16 separate types of tools, in many variants, with batch sizes “never exceeding 200.” Managers either had to cover costs for trimming thousands of parts (typically 4mm too thick) or pass them as acceptable if they weren’t elements of moving or cutting mechanisms.100

Ursus, which constructed trucks and autos under a Fiat license in the interwar years, began developing a tractor line in 1939. After postwar rebuilding, tractors became its specialization, starting with the simplified C-45 (ca. 100,000, 1947-56). Larger, more powerful models multiplied after 1956, their success enabling Ursus to “give up” its annual state budget supplement in 1965, as declining production costs “guarantee that the

100 Henryk Weber, “Raw Materials and Heavy Industry,” Życie Gospodarcze (Economic Life), 22 March 1964, Translations on East European Heavy Industry, No. 171, JPRS 24674, 19 May 1965. A related struggle unfolded at the smaller BFAT lathe plant in Bydgoszcz, where exports of automatic lathes brought in three times the plant’s average machine tool returns. This generated a battle between central management and the “design office,” which keeps “forcing new improvements in the course of organization of new production,” whereas, “having only the plan indicators which stand for material incentives in front of its eyes, [plant] management tried to prevent this by all available means.” See Eliasz Chazanow, “Raw Materials and the Machine Tool Industry,” Życie Gospodarcze (Economic Life), 19April 1964, at Ibid.
factory makes a profit.”

Ursus representatives regularly convened tractor-users’ conferences, at which complaints about shortcomings (cracking of cylinder blocks) joined suggestions for improvements (closed, glassed-in cabs). Yet before the 200,000th Ursus rolled off the line in April 1968, the proliferation of designs had produced a nagging problem – shortages of spare parts. The parts problem had blown up in 1965, with national television news broadcasting that tractor repairs had stalled because of supply delays. The Ministry of Agriculture then aggravated the bottlenecks with “quite strange, incomprehensible” orders, for example routing some 600 tractors from Poznań to the repair center at Zdzary, which had expected twenty.

The dilemma lay not just in weak planning for spares, nor in the suppliers’ “ugly habit of failing to discharge their obligations,” but fully as much in the sheer complexity of the parts universe. Ursus machines together counted some “34,000 items of spare parts,” proper inventories of which would weigh 100,000 tons, annually replenished by 300 parts-making firms to supply 4,000 clients, chiefly distributors and repair units. In autumn 1964, over 4,800 tractor parts were “reported to be in shortage”; something 12,000 inter-regional transfers only partly addressed. Ursus had neither the space nor sufficient underutilized tools to re-centralize parts manufacture, which is why Poland’s Agricultural Equipment Sales Center had created a contracting network in the first place. Four years later, regional repair shop directors agreed that the famine persisted: “supply clerks… are constantly traveling over the entire country for spare parts.”

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101 “100,000 Ursus Tractors,” Mechanizacja Rolnictwa (Mechanized Agriculture) 16-31 January 1964, Translations on East European Agriculture, Forestry, and Food Industries, No. 247, JPRS 24439, 1 May 1964. Note that declining production costs could not lead to declining product prices.


103 Andrzej Pluciński, Discussion of the Problem of Spare Parts is Suspended,” Mechanizacja Rolnictwa (Mechanized Agriculture), 1-15 March 1965, Translations on East European Agriculture, Forestry, and Food Industries, No. 359, JPRS 29946, 5 May 1965; E. Fafar, “Spare Parts Shortage Hampers Farm Machine Repair,” Zielony Sztandar (Green Banner), 11 March 1969, TEE-EIA, No. 109, JPRS 47825 10 April 1969. Green Banner is a journal associated with rural issues, started by the Peasant Party in 1931. This, of course, is a core issue Janos Kornai identified in The Economics of Shortage, Amsterdam: North Holland, 1980.
In tandem, Ursus management recognized its practices were out of step with rising demands for efficiency, productivity and profits. Thus top management undertook a wholesale restructuring in a truly-rare communist-era maneuver: in 1967, they brought in the British consulting firm Urwick, Orr, and Partners to install a management-by-objectives operating framework for those in its 750 “management positions.” In the prior set-up, divisions referenced “technology rather than products,” and “production managers did not have immediate control of materials or the allocation of tools.” A core challenge was to “introduce an equal distribution of competent personnel” so that “there were not operational areas for which no one was responsible.” In a three-year process, Urwick, Orr partnered with an Ursus team, working from six, “spacious” offices set aside in the administration building. During the redesign, “many departments were found to be unnecessary,” and others had to be created, especially in design and production.

The process was a “battle with the establishment,” especially with those threatened. The passive outlook of people occupying management positions has created an unending theme for satirists. Representatives of this outlook profess that it is unnecessary to undertake any decisions. After all, no-one will be criticized for evading a clear-cut position, but a mistakenly formulated decision can have fearful consequences. Until the present time, responsibility was accidental and was not a consistent policy. The main idea behind the ZBC [MBO] system incorporates interdependence of the subordinates and supervisors; the development of a passive outlook is practically impossible.

At the micro-level, fear was widespread.

A certain director of an assembly department, when asked to list all [his] functions, submitted several typewritten pages containing over 70 functions. He was apprehensive when asked to select several basic functions which were essential; he believed that such a limitation would lessen his importance in the plant and would result in the conviction that he was unnecessary.

And so it was: “The introduction of the ZPC caused numerous personnel reassignments, which uncovered the incompetence of certain directors and revealed the competence of others.” Yet overall the reshuffling was far less drastic than the staff had anticipated.104

By 1969 Ursus had formed its own team for continuing “the perfection of the plant organization.” Trained by Urwick, Orr consultants (the last of whom left in 1969),

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the local “organizers are Poles who are presently called ‘Englishmen’ by the working forces.” Word spread of this long-term restructuring effort and directors from other large firms arranged to visit. “They come, observe, and shake their heads in disapproval.” Expecting a ready-to-install fix, “something that could be easily adopted,” they found instead a program that had to be “adjusted to concrete conditions and continuously perfected” through organizational analysis and extensive training.¹⁰⁵ Polish enterprise management may generally have become more effective than at the time of the early 1960s dismissals, but further improvement looked to be a tough slog.

Last, we consider Hungary in the 1960s. Although a major proposal was advanced at the 1959 Party Congress “for improving the work of government and the direction of the economy,” the first fruit of initiatives toward reorganization arose with a 1963 wave of enterprise consolidations, ostensibly to increase efficiency by merging smaller firms. In some cases, this reversed decentralizations undertaken in the 1950s. The Manfred Weiss Steel Works, rebuilt on its Csepel Island footprint outside Budapest, was nationalized and renamed after Party General Secretary Mátyás Rákosi in 1950. A few years later, the complex was separated into 18 individual companies, including “the Steel Works, the Tube Factory, the Metalworks, the Motorcycle Factory,” all controlled by a “sectoral directorate.” The 1963 reorganization shrank the number of directorates, a layer of bureaucracy between the Ministries and operating units, and reinvigorated an earlier drive to create giant, integrated, and efficient firms. This countermovement had commenced by 1960, but managerial resistance proved partially effective; five directorates survived, overseeing 50 percent of Hungary’s SOE workforce.¹⁰⁶

Though there were reports of enterprise battles over securing raw materials at this time, the Kádár regime’s emphasis on improving standards of living reduced consumer goods shortages. Still, inventory accumulations (like those in Czechoslovakia) grew by 80 percent, 1958-60, reaching 9.2 billion forints. Ivan Berend noted: “The process proved unstoppable… [a] burden on the country because of the way the economy was operating. This dead weight ranged from ill-cut and thus unsaleable, children’s clothing to

¹⁰⁵ Ibid.
substandard machines, materials and goods other companies did not want.” As elsewhere, aged technologies delivered quality problems that only widespread upgrades could remedy. Central planners’ indices, “insensitive to technical development,” blocked replacements, as scrapping obsolete machines “would appear in company accounts as a deterioration in performance.” Innovation efforts at foundries and vehicle makers were obstructed as production managers routinely commandeered experimental facilities to achieve output targets. And the value of incomplete construction projects also continued to expand, reaching 13 billion forints by 1958, more than that year’s entire investment fund.107

Continuing contests over economic policy stalled substantive change until 1966-67. Then a widely-supported (and again, deeply-resisted) administrative commitment emerged to design a New Economic Mechanism, installed as of 1 January 1968, devolving authority to enterprises, implementing guidelines-based planning, reducing the number of indices, and opening the way, very gradually, toward market-based solutions to endemic supply, coordination and operations problems.108 The Party’s Central Committee, headed by Reszö Nyers, created a 12-member “economy advisory body” to examine openings for reform. Its July 1964 report called for a comprehensive review of management, investment, budgeting, technology, trade, and pricing practices, triggering a two-year investigation by eleven “working committees” involving Hungarian Academy

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of Sciences members and ministerial staffers, all overseen by a steering triad (Nyers and two senior colleagues). With the critical analysis completed by March 1965, the drafting and integration of proposals began, so that “various reform concepts” would be “confronted with each other.” This framework ignored individual attempts in the Bloc to fix agriculture, revise investment policy, or enlarge wage pools. The whole system was to be rebuilt, a project the Central Committee endorsed in November 1965, noting that “the main shortcomings [of the economy] are strongly related to one another [and] cannot for the most part be eliminated other than by interrelated and comprehensive measures.”

As might be expected, managers initially were indifferent, if not hostile to reforms. As István Garamvölgyi explained at the outset: “Although enterprises in general do want greater independence, in many cases they cling to the ‘guardianship’ of the ministry.” Getting ministry approval for enterprise undertakings had become a reflex; the implications of “independence” were shrouded in uncertainty. Yet the 1963 consolidations provoked concerns about post-merger efficiency and communications, and the value of administrative restructuring through establishing an “organizing apparatus” within enterprises. A 1964 decree promoted “teaching the science of organization,” including updating courses for current “organizers”. By 1966, restructuring to foster more intensive operations yielded “significant economic results” at the Budapest Chemical Works and the Lenin Metalworks. Over 1000 “organizers” (we might consider them re-engineering specialists) then occupied staff posts across Hungary, half in metallurgical and machinery industries, though how to locate them in enterprise structures wasn’t clear. In a third of 50 plants surveyed the re-engineering crews reported to the general manager, in another third to technical managers (where the work “is distorted toward technology”), and the rest to accounting or operational department heads. Still, this swirling activity demanded “continuing education for managers”; indeed, “this has been the greatest achievement to date of our management schools (Borsod, Dunaújváros, etc).”

109 Berend, Hungarian Economic Reforms, 138-144. Party functionaries expressed sustained reservations; some 1600 of them strenuously objected at the 1966 Political Academy, anticipating that the Party’s “leading role” would diminish. (152) The redesign had as well to skirt very carefully around duplicating innovations created by the pariah Yugoslavs, whose deviations were unspeakable.

Yes, “our management schools.” Westerners arriving in Central Europe in the early 90s seemed to think they were bringing the gospel of management to the needy and unwashed; Easterners at times claimed that all business education there had been sheer indoctrination. Neither explored regional histories, which could have been valuable. Hungary not only had multiple management training sites (in time linked with Polish and Czech developers); it also had top-notch socialist economists and organizational designers. All were critically involved in preparing for the NEM’s introduction. The reformers first mobilized the Party’s resources to develop and present two- to four-week courses for “county, factory and cooperative party secretaries, council leaders and leaders of mass organizations.” In 1967, some 270,000 Party members encountered “the fundamental issues of the reform” in these sessions. Separately, “2110 trade union officials and 250,000 other trade union officials and activists” learned of the project’s expected impacts on workplace relations, earnings, and opportunity. Campaigns to engage managers operated in parallel, through the Borsod School for Management Training, the Ministry of Metallurgy’s Dunajváros Institute, “the Parad training courses of the Ministry of Communications,” and similar venues provided by the Ministry of Heavy Industry and SZOVOSZ (the National Cooperatives Federation). Four-week courses were mandatory for about 1500 top managers, with “conventional passive methods such as lectures” replaced by active methods – consultations, debates, role playing. The curriculum included “the theory of management and organization,” methodological fundamentals, particularly mathematical applications, information systems, macro- and microeconomics, and industrial sociology/psychology. One goal was to overcome the “still widespread view that professional knowledge, ideological stability and certain personal traits are enough for management, and that special management knowledge is unnecessary.”

So, did these efforts make a difference?


Not much, according to László Horváth, a veteran executive in Hungary’s rubber industry monopoly. Training courses for managers were essential, as “a knowledge of fundamental management theory must be acquired.” Yet “very little of the knowledge imparted at the ‘head-expanding’ sessions can be turned into ready cash.” In part this derived from deep controversies within Western “management science” which “is yet very underdeveloped… [L]ittle of it can be used in factory management without the risk of making great mistakes.” Still, Hungarian management practice was being upended.

In this [new] situation the producing enterprises will get a role which is directly opposed to their present one; they will have to conform to the wishes of the buyers. This… also requires the alteration of the present style and attitude of management. Furthermore, the approval or refusal of this change is also a measure of the manager’s…understanding and acceptance of the purpose of the reform… It is not a little to ask that managers change their deep-rooted, ingrained concept of the enterprise’s interests; that they should get convinced of the facts that: exaggerated delivery times will eventually lessen profits; compliance with buyers’ quality requirements is an advantage, since their own enterprises are also buyers; punctual adherence to terms means security in all respects, etc.

Short courses could not deliver such transformations. Indeed, they offered no guidance on managers’ most serious problem: how to deal with workers’ anxieties about change, need for information, and reactivity to “bad news.” Managers “will have to assume greater risk in the hope of better results,” but errors that destroy workers’ bonuses will yield “a strong effort to increase the basic wage,” increasing fixed costs. As carefully as the NEM had been designed, it destabilized a system simultaneously seeking growth and stability.  

This was surely confirmed at Fuzfo’s Nitrokemia complex, Hungary’s largest chemical firm (6700 workers, 300+ products, from plastic intermediates to insecticides). Orientation toward meeting customer needs exposed weaknesses in the company’s “commercial apparatus.” Nitrokemia created its own export-import department, as urged, but could not solve the problem of collecting and tracking “the necessary information,” given the absence of marketing “experts.” Traditionally centralized, how could the firm allow greater unit independence without threatening “technical standards”? Equally, current administrators coordinating over 300 products “have hardly any time left for preparing a long term business policy,” something once done at the Ministry.

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Nitrokemia executives also learned to their dismay that the technical directorate’s “packaging department,” charged with sales promotion, “often advertises items whose production cannot keep up with the demand.” Still, local innovation did take place. Given the firm’s fairly low wages, production managers devised an “ingenious” bonus system, the “ton wage”. With this, enterprise headquarters awarded each factory unit 200 forints bonus for every ton of product completed, which local directors dispensed to the relevant work teams as a productivity reward. Yet at bottom, Nitrokemia’s executives largely assumed the Ministry’s hierarchical role one level down; they had no intention of decentralizing decision-making about product selection, investments, or market search. Control released from Budapest’s economic centers just congealed again in enterprise administration.114

A few final points. Acknowledging the insufficiency of their preparatory short courses for managers, the state created an advanced Management Training Center in Budapest, with permanent faculty (30 by the end of 1969) using detailed case studies to school directors in applying management principles. As in the West, creating the case studies was laborious, involving 100 specialists.115 Second, space opened for enterprise initiatives clearly was bounded, most intriguingly in terms of price-making. Tasked to increase profits, the manager of Budapest’s United Chemical Works took a radical step—he announced reduced wholesale prices (by 13 percent on “two popular detergents”) so as to increase demand, hence sales, and eventually profits. Retailers went crazy, denouncing publicizing price cuts as “dishonest,” as undermining their “independence,” a liberty which plainly included absorbing the reduction without lowering shelf prices to consumers. Perhaps a little marketing can be a dangerous thing.116

Particularly when the Bábolná State Farm got up to speed and broke out from agriculture into the service sector. Bábolná had heritage (its “nucleus was created by


116 “Hungarian Reform after the [CZ] Invasion,” RFE File HU OSA 300-8-3-3647, 14 October 1968.
Emperor Joseph II in 1789” for horse breeding), resilience (shifting from horses to chickens/eggs in 1962), and ambition (becoming one of Europe’s largest poultry establishments by 1969, hatching 22 million chicks yearly). It also had a dreadful problem with rats, as did Budapest. So, having solved its own vermin issues, Bábolná made Budapest an offer it couldn’t refuse. Early in 1971, the city announced an agreement with the State Farm to eradicate its two million rats, which annually did an estimated 100 million forints damage to food supplies. The two year program, which observers dubbed “Rattendaemmerung,” would earn Bábolná 182 million forints, if judged successful. If it failed, Bábolná would be paid nothing.

As RFE analysts emphasized, “without the NEM and its flexible, pragmatic and unconventional patterns of economic thinking and action, the rat hunters of Bábolná could never have appeared in Budapest.” Bábolná took the risk of expending funds and labor without a guarantee, a step toward entrepreneurialism which threatened rival entrepreneurs, the city’s “private rat killers,” who earned bounties running 10-15,000 forints/month for terminating vermin “with poison purchased in the West.” The city took the risk of becoming a laughing stock, if the project proved a fiasco. It did not. Bábolná thoroughly whacked the rats of Budapest, reducing the proportion of “infested premises” from 33 percent to 0.1 percent, over the years. (“Over the years” because Bábolná secured a series of long-term city contracts, lasting at least until 2011, in time handled through the company’s Pest Control Center.) Such market maneuvers unsettled Kádár administration traditionalists. Thus they rolled back much of the NEM in and after 1972, restoring centralization and “control”, even as the global environment was

117 Bábolná managers also used the NEM to create its own foreign trade arm, exporting its own products (particularly eggs) and those of other state farms, and importing Western agricultural technology. With a hard-currency credit from the central bank, it bought a $350,000 chicken factory from the US and $500,000 worth of corn harvesting machinery from Western Europe. Farm manager Róbert Burgert became a Central Committee member in 1966.

118 “Rats and the NEM,” RFE File HU OSA 300-8-3-3758, 27 January 1972.

going out of control, with severe repercussions for Hungary and the rest of Central Europe.

Permit Reszö Nyers to have the last few words. Writing to English-speakers in 1969, he explained:

The basic conception of the new mechanism is that *national planning and the market mechanism must be closely integrated*. What we bring about by doing this is essentially a market *regulated by planning* where commodities and money move in harmony, and where demand is also in harmony with supply… Of course it does not yet operate with optimum efficiency. To achieve this *both* these factors – *national planning* as well as the *market mechanism* – need to be further developed. *Planning by the enterprises*, which organically connects them in practice, also must be developed.\(^{120}\)

The struggle to “harmonize” plan and market would continue in Hungary until the socialist experiment’s end, but in Czechoslovakia and Poland, such goals had either been crushed by conservatives and invaders or were overwhelmed by the vast muddle of contradictory policy formations. Whereas socialist managers by 1970, in all three locales, were no longer structural ciphers, their increasing responsibilities for creating efficiencies, upgrading technologies, generating marketing and longer term plans, coordinating supply with product development, and securing capital investment funds remained rooted in the “accountability without authority” domain, though perhaps modified to “accountability without sufficient authority, skill, and resources.” Little did they know that the 1970s would be more severely testing and the 1980s a perfect nightmare.

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