The Soviet Enterprise: What Have We Learned from the Archives?

MARTIN KRAGH

Business historians have hitherto paid only scant attention to the Soviet experience.[1] This article is an attempt to summarize the knowledge we have gained in the two decades following the collapse of the Soviet economy, and draws on published research, document volumes, and previously unexplored archival sources.[2] In the conclusion, I make the case that the Soviet experience can provide relevant comparative examples for the field of business history.[3]

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1. An early exception to the rule is Yudanov, "USSR." In *Big Business*, Chandler, Amatori and Hikino, editors. For a more comprehensive literature overview and an elaboration on Hungary and Eastern Europe, see Germuska, "Military," and Germuska, "Military-Economic."

2. This article draws on material from the Russian State Archive of the Economy (RGAE), the State Archive of the Russian Federation (GARF), and the Russian State Archive of Contemporary History (RGANI).

3. In recent debates about the direction of business history, the Soviet experience has not been mentioned as one of the neglected topics of research, even though the topic has been little dealt with within the field. Friedman and Jones, "Business History." Survey anthologies are also silent; see Amatori and Jones, *Business*.

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Introduction

Even though few countries can today claim to have any kind of command economy, the majority of the world's population still lives under dictatorial and/or quasi-market economic regimes. And as regards the long twentieth century, no shadow falls longer in this regard than the Soviet experience. Few scholars anticipated the timing of the Soviet economy's stagnation and collapse, and Joseph Schumpeter's suspicion that market economies could eventually evolve into a socialist variant was not obviously wide of the mark at the time.[4] Two important events in the last two decades have changed our perception of the feasibility of socialism: the disintegration of the Soviet Union into fifteen separate states, and the opening of secret archives that followed. However, although the general consequences of the collapse of the Soviet system are fairly well known, the findings of archival researchers remain underexamined by mainstream social scientists.

Our understanding of the Soviet experience was greatly enhanced by the "archival revolution" of the 1990s. As the Soviet Union quickly disintegrated, a wealth of primary sources previously closed to researchers was suddenly made available. Despite the fact that access to important sources remains patchy, the amount of knowledge gained in the last two decades is certainly significant enough to warrant the locution "revolution."[5] However, it is necessary to make a distinction between two sets of archival revelations: those that have provided new and more precise data about the scale of phenomena we already knew, and those in which the discoveries have provided a new understanding, not merely quantitatively but qualitatively, and thereby forced historians to reinterpret events and phenomena in unanticipated ways.

Although some revelations clearly fall into the latter category—i.e., our understanding of previously closely guarded secrets such as state repression, defense, demography, and the labor camp system—most revelations about the Soviet economy do not. Nevertheless, the last two decades have seen important gains in our understanding of aspects such as governance, growth, finance, and enterprise management. We now have a far more detailed picture of the actors most directly involved as well as of the institutional environment in which they operated. Knowledge previously inferred from anecdotal evidence has been more fully substantiated using more systematic data. Furthermore, even where archival sources do not add anything qualitatively new per se, they constitute primary material and are thus of greater critical value than sources such as émigré reports or Soviet

4. Schumpeter, *Capitalism*.
5. Graziosi, "The New Soviet Archival Sources."

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journals (which were censored even when they were honest) that had informed previous scholarship. Needless to say, there are issues that have not been settled by access to new archival sources, and scholarly quarrels persist.[6] As Stephen Kotkin observes, it is perspective, not archives, that is determinate.[7]

One of the largest bureaucracies ever to exist, the Soviet system has left us with a wealth of material on economic phenomena. Drawing on this information can help us answer questions of interest not only to country specialists but also to business historians and social scientists in general. The main aim of this article is to provide a comparative summary of the research made in the last two decades, with special emphasis on the Soviet enterprise in its institutional setting. I also draw on document volumes and previously unexplored archival sources in order to answer fully the question posed by my title: What have we learned from the archives?

A number of survey articles written by specialists in the field deserve to be mentioned. Oleg Khlevniuk has surveyed the literature on Stalinism, focusing primarily on political and social history.[8] R.W. Davies has surveyed the literature on military industry, repression, and decision making under Stalin.[9] Paul Gregory and Mark Harrison have covered a range of topics in the field of political economy (dictatorship, bureaucracy, allocation, and growth).[10] Michael Ellman and Peter Gatrell have summarized the research on institutional and macroeconomic aspects of the Stalinist system.[11] While all of these articles have merit, the emphasis in the present essay will instead be focused more narrowly on the nature of the Soviet enterprise (although some overlap is, of course, inevitable).[12]

The functioning of the Soviet system is usefully illuminated by an analysis of enterprise behavior. In *The Logic of Liberty* (1951), Michael Polanyi argued that it is mathematically demonstrable that centralized monolithic control cannot be sustained for planning

6. In consideration of the fact that the "archival revolution" coincided with the collapse of the Soviet system, the "revolution" entails access to not only primary sources but also oral sources and memoir literature. For the free citizens of the former USSR, censorship has also been lifted and topics that were previously sealed off can now be researched more openly.

7. Kotkin, "1991."

8. Khlevniuk, "Stalinism."

9. Davies, "The Archives." In *Studies*, Kragh and Lindgren, editors; Davies, "The Economic History."

10. Gregory and Harrison, "Allocation under Dictatorship."

11. Ellman, "The Political Economy of Stalinism"; Gatrell, "Feet."

12. The archival revolution has raised also other types of questions, such as the misuse of primary sources for commercial, political or sensational ends, and the ethical concerns confronting individual scholars. See Getty, "Commercialization," and Hagen, "The Archival."

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systems that continue to grow in complexity and hierarchical stratification. A system of spontaneous and autonomous units, he argued, must therefore be introduced to prevent disorder from intensifying at an exponential rate.[13] Polanyi's hypothesis raises an array of important questions about the Soviet experience: What was the nature of government policy, and what was its influence on enterprise behavior? What roles were played by networks—formal and informal—in enterprise performance? How was technology transferred and developed in the Soviet command system? What was the role of enterprise management, and which parameters guided management behavior?

The remainder of this article is organized into three main sections. The first part details the Soviet system of governance and secrecy. The following part details the Soviet economic system at the macro level and explores topics such as investment, technology, and finance. These parts form the background to the last part, which outlines the Soviet enterprise and explores topics such as management, informal networks, collusion, corruption, and efficiency. The conclusion summarizes the preceding analysis, offers some provisional conclusions, and weighs the implications for comparative business history.

Governance

The Soviet economy can only be understood by reference to the most salient institutional properties of the Soviet political system. The Soviet system was, from the beginning of the revolutionary period, a one-party state controlled by its highest-level decision-making group—the Politburo. This small group of five to ten individuals made all the key decisions in areas such as the state budget, trade, agriculture, defense, consumption, education, media, and foreign relations. Decisions were often made on the basis of reports from the government organs most directly involved, such as the State Planning Commission (Gosplan) or the Ministry of Heavy Industry, but such organizations could not make strategic decisions independently within their own fields. The most powerful government organs were usually also headed by members of the Politburo, and some vital matters such as foreign affairs and security had no specific departments, being managed directly by the Politburo.

The Soviet system was at its most authoritarian during Stalin's reign, from the mid-1920s until his death in 1953.[14] One surprising

13. Polanyi, *The Logic*. See also Hayek, *The Road*. This literature was part of a larger debate on planned economies.

14. Khlevniuk, *Politburo*; Gorlizki and Khlevniuk, *Cold Peace*.

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insight granted by archival research is that, in contrast to what was previously believed, major decisions during these years were made in an informal manner. Formal meetings of Politburo members declined dramatically throughout the 1930s, while individual and ad hoc meetings in Stalin's cabinet increased.[15] Stalin's diary of appointments has been published, and a quantitative illustration of the number of meetings, as well as some of the individuals with whom he met most frequently, is provided in figure 1.[16] These statistics do not include informal meetings between Stalin and his closest associates in his private residence outside Moscow, although we know that such meetings were not infrequent.[17] However, the figures provide an insight into how decision making was personalized and further monopolized during the Stalin era.

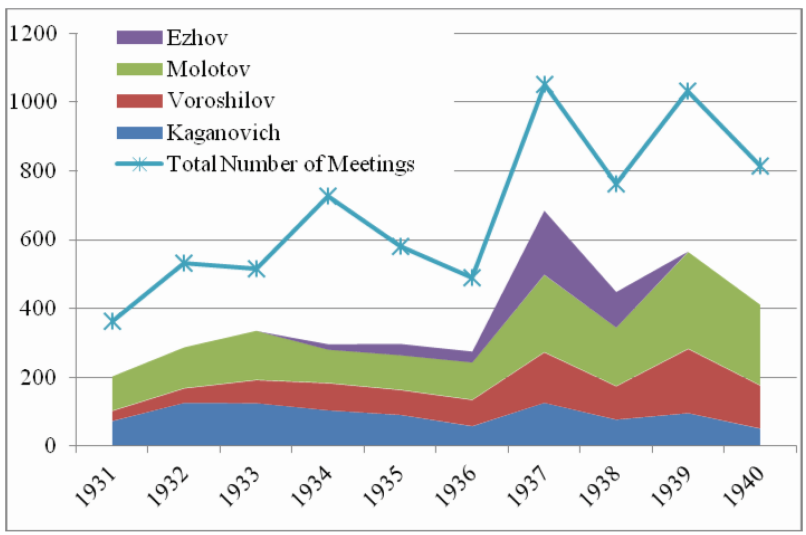


Figure 1 Number of meetings in Stalin's cabinet, 1931–1940. Note: Vyacheslav Molotov, Lazar Kaganovich, Nikolai Yezhov, and Kliment Voroshilov were all high-ranking members of the Politburo and part of Stalin's ruling circle. The number of visits by Yezhov to Stalin's cabinet seized in 1938 as he was purged in the Great Terror. Source: Khlevniuk, *Khozyain*, 468–71.

15. In 1932, there were forty-seven meetings; in 1933, there were twenty-four meetings; in 1934, there were eighteen meetings; and so on. In 1939 and 1940, on the eve of war, there were just two meetings each. Decisions were clearly made elsewhere. See Rees, "Leaders." In *Behind the Façade*, Gregory, editor, 43.

16. Chernobaev, *Na prieme u Stalina.*

17. When Stalin went on vacation to the Black Sea, he would also communicate actively with close associates such as Lazar Kaganovich and Vyacheslav Molotov. A large number of these documents have been published in Russian and in English translation. See Davies, *The Stalin-Kaganovich Correspondence*; Lih, Naumov, and Khlevniuk, *Stalin's Letters.*

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Although the Soviet system evolved over time, its fundamental institutional structure of command, established during the First Five-Year Plan in 1928/29, remained virtually unchanged until the late 1980s. Members of the Politburo relied on key agents and units, mainly Gosplan and the branch ministries with their *glavki* ("main administrations"), in order to make their programs operational. Some branches were also duplicated at the republic level. At the bottom of the pyramid lay industrial enterprises, farms, and transport organizations. Organizational reshuffling did occur over time, but the highly bureaucratic and hierarchical system was never questioned or seriously modified. In practice, Stalin's word was absolute, but the enforcing of decrees was often imperfect because of various restraints. Accordingly, many informal practices persisted at the micro level. Recent research has emphasized how the dictator would solve the dilemma of asymmetric information through a combination of "rules of thumb" and sticks (punishment) and carrots (additional resources). Yet this did not necessarily help.[18] Although priorities and policies shifted over time, Gertrude Schroeder has noted of later decades: "In short, firms continued to behave much as before, because the reforms did not alter any of the essentials of Stalinist central planning."[19]

Secrecy and Information

Keeping secrets is an important task for all organizations, big or small, to one degree or the other. The role of secrecy in the Soviet system, which was taken to extreme levels, is the subject of a well-researched monograph by Niels Erik Rosenfeldt.[20] The practice of "conspiracy" had its roots in the Tsarist era, when revolutionaries were confined to clandestine networks and coded communications. Never abandoned after the Bolsheviks wrested control in 1917, these practices simply assumed new forms. As Rosenfeldt has argued: "Secret forms of communication, the conspiratorial network, the strict rules of conduct for all involved, constant security and loyalty control: this was the more concrete expression of the spiritual baggage that the Bolsheviks brought with them."[21] The master of the house, Stalin, consolidated power through his ability to control information and hide it from everyone else. He had a shadow network of staff dispersed throughout the bureaucracy and party apparatus, whose real work tasks were covert and who reported to him directly. These activities were managed by a

18. Markevich, "The Dictator's Dilemma."
19. Schroeder, "Economic Reform."
20. Rosenfeldt, *The "Special" World*; Bone, "Soviet Controls."
21. Rosenfeldt, *The "Special" World*, 67.

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"Secret Department" within Stalin's personal chancellery headed by his first assistant, Alexander Poskrebyshev.

The overall system of secrecy was diffused throughout the Soviet body politic, creating significant hurdles for the ministries, enterprises, and agents responsible for handling classified information. Mark Harrison has shown how in some cases even the very rules of secrecy were classified, as, for example, when representatives of the Army could not be told the production costs of the weapons they were buying, on the grounds that this information was a military secret.[22] Such use of information created obvious problems for the planning and allocation of resources, but it made sense from the point of view of the individual supplier who could monopolize information. In a system that revolved around conspiracy and access to information, careless handling of sensitive documents could be severely punished. For example, a curious archival source from the Second World War relates how a NKVD courier was sentenced to forced labor for losing documents while relaxing with a game of volleyball.[23]

The restriction of information on a need-to-know basis even applied to those in the highest echelons of power. The department responsible for managing the Secretary General's incoming and outgoing correspondence comprised several different sections. In the 1960s and 1970s, it has been shown, some of these were not just "secret" (*sekretnye*) but completely "concealed" (*tainye*), in the sense that their very existence was known only to a small group of highly selected people. This is why, in the 1980s, it was necessary for Gorbachev himself to personally authorize his staff to disclose documents pertaining to the massacre of some 22,000 Polish nationals in the Katyn Forest in 1940. The system of secrecy implemented by Stalin survived until the collapse of the USSR.[24] Needless to say, publications of official statistics distorted sensitive topics, such as defense expenditure, or simply concealed information, such as the size of the labor camps, which the regime did not wish to be known.[25]

The Economic System

The basic contours of the Soviet economy were well understood even before the archival revolution. Scholars had determined that the system was characterized by high levels of capital investment, in which leaders saw a trade-off between an increase in consumption

22. Harrison, "Secrecy." In *Guns and Rubles*, Harrison, editor.
23. GARF, *f.* 8131, *op.* 37, *d.* 980, *l.* 175.
24. Rosenfeldt, *The "Special" World*, 468–74.
25. Davies, "Making." In *Behind the Façade*, Gregory, editor.

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and continued investment (their preference clearly lay on the side of heavy industry and defense).[26] Even if allocation is optimal, leaders in a system where growth depends on capital investment will face diminishing returns and hence reduced growth. This theoretical prediction has also been confirmed by GDP growth estimates, although exact growth rates remain a source of controversy.[27] Technological advances, which could have averted declining growth, were few. Soviet scientists competed for a number of years in fields such as space technology, military R&D, and nuclear energy, but they failed to translate discoveries into lasting innovations for the benefit of industry as a whole.[28] Resource allocation and decision making in the USSR were significantly more centralized than the mobilization of science in Nazi Germany and in Japan under Hirohito.[29] A number of functions that in market economies can be found at the level of the firm—marketing, distribution, and R&D—were in the Soviet system either wholly absent or organized at a higher administrative level.

The archival revolution has transformed the conditions of research into Soviet science. We now have a better understanding of how the development of technology and science in the Soviet Union was shaped by the socio-political and ideological context, the role of the party at various stages, and institutional infighting.[30] Studies on Soviet scientific institutions in the Khrushchev era—which witnessed the successful launch of *Sputnik* and the first piloted spacecraft—have revealed a bureaucratic quagmire. The failure of ministries to coordinate supplies, and of subcontractors to keep up with technological change and erratic funding policies, was hardly unique to the Soviet system, but they were exacerbated by a stalled economic and administrative structure.

A few talented and independently minded scientists managed to navigate the system while avoiding the worst excesses of Stalinist repression or faulty administrative structures. Loren Graham has revealed how Peter Kapitsa, later a Nobel laureate in physics, at the height of Stalinism directly confronted both the dictator and Lavrentii Beriia, head of the Security Police (NKVD), over the arrest

26. Jasny, *Essays*; Bergson, *The Economics of Soviet Planning*; Nove, *An Economic History*; Gerschenkron, *Economic Backwardness*.

27. Harrison, "Soviet Economic"; Rosefielde, "The Riddle"; Harrison, "Postwar"; Harrison and Markevich, "Great War"; Allen, *Farm*. For a post-Soviet assessment, see Ellman and Kontorovich, *The Disintegration*; Ellman and Kontorovich, *The Destruction*.

28. Hanson, *The Rise and Fall*; Amann and Cooper, *Industrial Innovation*; Amann and Cooper, *Technical Progress*.

29. Grunden et al., "Laying."

30. Gerovitch, "Perestroika." On the environmental effects of technology use in the Soviet economy, see Josephson, "Atomic."

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of Kapita's colleagues and his own refusal to cooperate on the atomic bomb project.[31] In the 1950s, entrepreneurial scientists such as Sergei Korolev—the "father of Soviet rocket science"—managed to coordinate not only "vertical" patronage ties with high-ranking leaders but also "horizontal" networks (linking engineers and defense leaders), in order to overcome bureaucratic hurdles, obtain official approval for projects, and enforce the execution of government orders—something that government officials often failed to do. Indeed, Slava Gerovitch has suggested that many of the most prestigious space projects ever undertaken emanated from networks created by Korolev, rather than from the Soviet government.[32]

Direct foreign investment, which during the Tsarist period had been instrumental in diffusing technology and entrepreneurial know-how, became impossible following the October Revolution and Vladimir Lenin's decrees relating to the nationalization and expropriation of private assets in land, mines, and capital.[33] Concessions were made to foreign enterprises during the tentative liberalization of the 1920s, but a detailed case study of a Moscow Railway Repair Factory suggests that, more often than not, political and administrative hurdles caused negotiations to end in failure and disagreement.[34] As a result, no more than around one hundred concessions remained in 1927, although what they lacked in quantity was likely compensated for by quality. For example, Swedish firms SKF and ASEA—who had established factories in the prewar years—were major producers of ball bearings and electric motors, respectively, providing crucial technology during the early years of Soviet industrialization.[35]

The importing and adaptation of foreign technology replaced concessions in the 1930s and continued through lend-lease during the Second World War and the provision of so-called "turnkey projects" in the postwar years. Under these arrangements, the plant contractor assumed responsibility for all aspects of the production process, from design and procurement to installation, staff training, and ongoing maintenance and service. Two well-known instances of such an arrangement were the Fiat-based car factory in Tolyatti (named after Italian communist leader Palmiro Togliatti) on the Volga River, which was built in 1966, and the synthetic fibers complex at Mogilev, which was built by the British Polyspinners Consortium in 1964.[36] At the same time, Soviet exports tended to be low-tech, targeted at

31. Graham, *Moscow*, 133–38.
32. Gerovitch, "Stalin's."
33. See J. McKay, "Foreign" for a summary.
34. Heywood, "Soviet."
35. Khromov, *Inostrannye*.
36. Hanson, *The Rise*, 86.

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"friendly" nations and developing economies; Soviet managers were reluctant to manufacture goods for export because these were more demanding to produce than for the domestic market, and they usually received the blame when foreign customers lodged complaints about product quality.[37]

Investment Strategy

Of particular interest is the light shed by recent research on three key issues relating to Soviet investment strategies. First, we now have a better understanding of the pivotal role of military strategic considerations during the formative years of Soviet industrialization.[38] Enterprises were given secret mobilization plans, plants were prepared to switch from civilian to military production, and strategic production was relocated to the Urals, far from any potential campaign front.[39] Even though Germany's invasion in 1941 rendered much of the planning redundant, the Soviet economy did not collapse. Rather, as has been shown, it was able to mobilize extensively—albeit at a high cost—throughout the Second World War.[40] This contrasted significantly with the First World War, when the mobilization of Russian resources had effectively ground to a halt.[41]

Military and defense industries, including its various production branches for aircrafts, tanks, and vehicles, are some of the most thoroughly researched sectors of the Soviet system.[42] One important finding, which testifies to the army's privileged role, concerns its ability to control and supervise various branches of the defense industry. As elsewhere in the Soviet economy, production of *materiel* was plagued by delays and quality problems. But what made the military different from other buyers was its readiness to employ thousands of official agents, regardless of the expense, for the purpose of winnowing out products deemed to be of inferior quality.[43] This contrasted sharply with the civilian sectors, which usually had to comply with allocation plans and which were unable simply to reject goods. In light

37. Sanchez-Sibony, "Soviet."

38. Samuelson, *Plans;* Davies, "Soviet Military Expenditure"; Simonov, *Voenno-promyshlennyi*.

39. Samuelson, *Tankograd*; Stone, "The First." For a pioneering case study of Soviet industrialization, see Kotkin, *Magnetic*.

40. For an analysis of Soviet economic performance during the war, see Harrison, *Accounting for War*.

41. Broadberry and Harrison, *The Economics of World War I*; Gatrell, *Russia's*.

42. Gregory and Lazarev, "The Wheels"; Harrison, "Soviet Industry"; Harrison and Simonov, "Voenpriemka"; Harrison and Markevich, "Quality." For an evaluation of prearchival research on Soviet military and its sources, see Kontorovich, "Secrecy."

43. Harrison and Markevich, "The Soviet."

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of the similar characteristics displayed by military marketplaces in other institutional arrangements, this would appear to offer promising opportunities for comparison with other countries.[44]

One such is China. A recent study of Chinese aviation by James Fallows has detailed the Chinese government's inability to build a competitive passenger jet. Like the Soviet economy, China's design and production methods have shown themselves ineffective at building complex machines, which require continuous R&D over a long period of time. Simpler products, such as shoes and iphones, for which the technology can be rapidly transplanted or single-use products, such as rockets and satellites, have proven easier to manufacture. As China's leaders are learning, the ability to deliver highly sophisticated products such as a jetliner, in which hardware and software need to be comprehensively merged at the same time as meeting global market standards, is not easily developed.[45]

Second, we now understand more fully the effects of the imbalance between investment and consumption in Soviet planning, an issue which appears never to have been fully resolved. A number of monographs have shed new light on the politics of consumption and its role in maintaining social cohesion and stability.[46] Although their top priority was investment in capital accumulation, Soviet authorities could not ignore labor discontent or workers' perceptions of what constituted a fair wage. Whenever they sensed a tipping point of unrest or declining labor productivity, they would shift resources towards increases in wages, housing, or consumption—during peace time, at least. This issue was well understood by observers such as Alexander Gerschenkron even before the archival revolution, but we now have conclusive evidence of this issue's fundamental importance.[47]

In illuminating the wider social responsibility of enterprises in the Soviet economy, scholars have also added to our knowledge of the uneven development of mass consumption. Larger factories supported workers and their households directly, for example by growing potatoes or vegetables so that soup was available. During their spare time, workers were also allowed to use scrap metal to create their own utensils.[48] Similarly, much basic machinery was assembled in situ, and managers anticipated the need to refurnish or refit supplies upon delivery. While these basic functions performed at the level of the firm should not be underestimated, they testify to the

44. Eloranta, "Rent Seeking"; Germuska, "Military."

45. Fallows, *China*.

46. Osokina, *Za fasadom*; Hessler, *A Social History*; Gronow, *Caviar*; Randall, *The Soviet Dream*.

47. Gerschenkron, *Economic Backwardness*, 302.

48. Goldman, *Women*, 255. See also Kotkin, *Magnetic*; Osokina, *Za fasadom*.

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uneven level of specialization in Soviet industry and the practical perils of chronic shortages.

Lastly, we better understand the significance of bargaining and negotiation over plan alterations and additional resources. Petitions were submitted to the Politburo from various levels, ranging from regions and ministries down to individual firms. Two recent case studies of Soviet ministries illustrate the intensity of conflict within the bureaucracy and how subordinates could influence strategic decision making after the event. The Soviet system was dictatorial but it was also susceptible to influence from below. The fact that different regions could pursue conflicting agendas qualifies how we understand the notion of "dictatorial" control by the center.[49] These topics were actively debated in the post-Stalin period in Western historiography, but now we have access to documentation of the actual inner workings of the system. We also possess detailed case studies of industrial towns (so-called "monotowns") that could not have been written before 1991, partly because of limited archival access and partly because such strategic towns were closed to foreigners and most Soviet citizens.[50]

A Shortage Economy

Soviet leaders harbored few illusions about the functioning of the Soviet economy.[51] As R. W. Davies has discovered, high-ranking members of the Politburo attempted to reform the system as early as 1930s.[52] Internal documents reveal the opinions of leaders of the state that were never expressed in public. For example, four years after assuming the post of First Secretary of the Communist Party in 1957, Nikita Khrushchev lamented the condition of the various state ministries. They "know nothing about the status of their factories," he argued, and they fail to recognize "the existence of large-scale equipment stoppages and delays resulting from lack of rhythm, mistimed provision of resources, and organizational and technological discrepancies." He further noted that production was usually idle in the first half of each month, that production was disorganized, and that this led to high levels of spoilage and low productivity.[53] Although obviously self-serving, Khrushchev's comments also reveal the Soviet leadership's unfailing belief that the system might be saved by

49. Heinzen, *Inventing*; McCannon, *Red Arctic*.
50. Samuelson, *Tankograd*; Penter, *Kohle*.
51. For an analysis of the industrialization debate in the 1930s, see Davies, *The Industrialization of Soviet Russia*. The history of economic reform in the USSR was known before the archives; see Kontorovich, "Lessons."
52. Davies, "Planning."
53. Fursenko, *Prezidium*, 522–39.

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reform. Unlike the Chinese Communist Party under Deng Xiaoping, the Bolsheviks never seriously contemplated the possibility of fusing market elements with a command economy.[54]

Why could the Soviet economy not be reformed? Of the many scholars working on Soviet economics during the Cold War, it was an insider, János Kornai, who first identified what seems to be a defining feature of command economies. Shortages of goods, he argued, were not the consequence of errors on behalf of the planners, but a systematic and ineradicable flaw of Soviet-style economies. Enterprises, in turn, operated under conditions of a "soft budget constraint" that provided few incentives to implement cost-reducing measures. The phenomena that Khrushchev himself had noted were not amendable flaws but structural characteristics, comprehensible only from the perspective of a shortage economy.[55]

Kornai's analysis had major implications. The idea of a shortage economy allowed scholars of Soviet economics to organize observed phenomena, such as delays, production stoppages, spoilage, low productivity, and inefficiency, into a single coherent framework that did not rely upon ad hoc or idiosyncratic assumptions ("Russian workers are inherently lazy," "delays are the result of malicious behavior," etc.).[56] Rather, observed phenomena in Soviet-style economies could be explained using general economic principles. In other words, it was possible to understand behavior as the outcome of people making bounded rational choices under conditions of shortage. There was even a predictable rationale for the inefficiency, given the institutional constraints outlined by Kornai. This hypothesis of a soft budget constraint has been substantiated by subsequent archival studies of Soviet finance and enterprise management, as elaborated below.

The Role of Money and Credit

In socialist planning theory, money and financing were considered unimportant in the practical allocation of steel, fuel, textiles, machines, or labor, and a physical transaction could only be expressed financially in rubles.[57] Money, in other words, was "passive," and was supposed to matter only for practical monitoring by financial authorities. For their part, enterprises were supposed to receive the cash and credit needed in order to fulfill plan goals. This is the opposite of how a market economy functions, where it is financial means

54. See Lin, "Disembedding."

55. Kornai, *Economics*.

56. For a discussion of the relation between the Soviet state and the workers, see Graziosi, *A New*.

57. Davies, *The Development*; Arnold, *Banks*.

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that determine the allocation of resources, not the other way around. Recent research, however, suggests that money and credit continued to matter in the Soviet economy in two ways: (i) Soviet enterprises were given an incentive to hoard as much money as possible (preferably in cash), and (ii) the unplanned issuing of credits among enterprises further increased their indebtedness.

Paul Gregory has shown that the size of enterprise debt increased over time as an inevitable feature of soft budget constraint. Simply put, firm A had to meet its delivery targets to firm B in accordance with administrative orders regardless of B's solvency. If B could not pay for deliveries, some ministry would always guarantee that A received the value of the product. (Alternatively, cost over-runs would be corrected using subsidies, tax reliefs, price increases, or a combination of all three.) As the amount of outstanding debt increased, the State Bank (Gosbank) reluctantly became a de facto lender of last resort, not only for financial institutions but for every industrial enterprise in the country. This was the institutional corollary of a command economy operating under conditions of shortage. Inevitably, it encouraged opportunistic behavior.[58] Bank money was siphoned into cash and hoarded by enterprises for similar reasons. Cash could be used to pay unauthorized horizontal transactions, and such siphoning-off became so widespread as to create inflationary pressures.[59] Money was not passive in the Soviet economy.

Another more quotidian but no less interesting matter was the role of money in international trade. Elena Osokina has detailed the Bolsheviks' expropriation of the Tsarist gold reserves and cultural heritage as a means of financing the import of capital goods.[60] As Osokina has shown, the Russian central bank in 1917 held around 800 tons of gold bullion, making it one of the largest gold reserves in the world. By the time Stalin launched his program of forced industrialization in the late 1920s, the reserves were almost gone. The regime sank into debt, buying equipment, tractors, and raw materials on credit. With no hard currency to hand—the ruble being inconvertible—it was forced to sell off objects from the national cultural heritage. The trade in looted paintings, jewelry, icons, books, and antiques provided the foreign currency needed in order to finance imports.

58. Gregory, *The Political Economy*, 213–42; Gregory and Tikhonov, "Central Planning."

59. Kim, "Causes"; Harrison and Kim, "Plans." According to Nakamura, the Soviet economy experienced at least four periods of high inflation: during the civil war, the beginning of the First Five-Year Plan (1929–1932), the Second World War, and the latter half of the 1980s. See Nakamura, "Did."

60. Osokina, *Zoloto*; Osokina, "Zoloto." In *Ekonomicheskaya Istoriya*, Borodkin and Petrov, editors.

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However, because of the way these dealings were handled, the sums raised were small in comparison to that of total exports as well as to the cultural value of the objects sold.[61] Little was known about this topic before the archival revolution.

Enterprise Management

Initiated by the US Air Force in 1950, the Harvard Interview Project conducted meticulous interviews with hundreds of carefully chosen Soviet émigrés, many of them former enterprise managers.[62] Drawing on their accounts, David Granick and Joseph Berliner then provided an intricate account of business enterprise in the USSR. Merle Fainsod and Naum Jasny compiled a similarly broad conspectus of Soviet industry using German archives that were seized after the Second World War.[63] The significance of the Harvard Project can hardly be overstated. The informal practices revealed by its interviewees were by their nature of a kind that leaves almost no documentary evidence. Accordingly, this area has been impacted only secondarily by the archival revolution.

An important early finding was that enterprise managers had to rely on informal strategies in order to fulfill plan targets. Resources had to be constantly negotiated, inputs being often inadequate or of the wrong quality, and workers had to be kept sufficiently compliant so that they did not refuse to work or leave the enterprise. The reason was simple: plan targets were too highly aggregated and insufficiently detailed to provide enterprises with clear guidelines. Control stations such as Gosplan or the Ministry of Finance could monitor only a fraction of transactions. Most allocation decisions were made further down the hierarchy on the basis of previous experience, rule of thumb, and informal networks.[64] All the Politburo could do was to issue priorities and maintain direct control of the most strategic projects.[65] Planners were thus left with an unwelcome principal–agent

61. See also Odom and Salmond, *Treasures*.

62. Documents from the project have been made available online, see: http://hcl.harvard.edu/collections/hpsss/about.html.

63. Granick, *Management*; Berliner, *Factory*; Fainsod, *Smolensk*; Granick, *The Red Executive*; Conquest, *Industrial Workers*; Granick, *Soviet Metal Fabricating*; Berliner, *The Innovation Decision*; Millar, *Politics*.

64. There exists an extensive prearchival literature on this theme. See Zaleski, *Socialist*; Kontorovich, "What"; Linz, "Managerial"; Linz and Martin, "Soviet"; Ericson, "The "Second Economy."

65. It was, for example, Stalin's trusted head of state security, Lavrentiy Beria, who personally supervised the development of the Soviet atom bomb. See Holloway, *Stalin*.

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dilemma: monitor behavior more closely (a costly activity) or rely on agents to fulfill plans using a certain amount of discretion. The principal's mission boils down to ensuring that such discretion, rather than degenerating into a pretext for theft, remained a way of solving actual allocation problems for the benefit of the enterprise.[66] Empirical evidence suggests that, while Soviet managers did both, the latter largely prevailed over the former.

Informal Market Networks and Economic Crime

An extensive secondary literature has emphasized the prevalence of shadow activities in the Soviet command economy, for example, managers side-stepping official distribution channels in order to receive goods directly, or falsifying accounts in order to receive funding for nonexisting outlays. Informal negotiations were commonly referred to as *blat*, a term that could also refer to everyday consumer practices such as obtaining extra bread rations.[67] Outright manipulation was referred to as *pripiski* (false accounting). Berliner quoted a former Soviet manager: "Sometimes this sort of activity was done for the sake of the enterprise and sometimes for one's pocket. But in fact we were often compelled to do illegal things or [accept] informal requirements not for our own benefit but simply so that the enterprise could function." Berliner comments: "If we were totally reliant upon the written sources of Soviet society, we might hardly have guessed at the importance of *blat*."[68]

In order to secure the necessary inputs, enterprises would dispatch so-called "supply agents" (*tolkachi*) whose role was to negotiate deliveries that fell outside the terms of formally sanctioned plan targets. Such agents received a minor bonus for each successful transaction. A highly classified report produced by the Bureau of the Central Committee of the Russian Communist Party in 1961 mentioned that "many factory directors, managers, organizations, and departments violate official resolutions on the prohibition of dispatching official persons, *tolkachi*, and do not sufficiently approve of measures to facilitate the organization of material-technical supplies." As the report makes clear, in 1960 alone about 3,238 supply agents had visited the Magnitogorsk metallurgical enterprise, 1,427 the Saratov

66. This is the interpretation offered by recent scholarship: Harrison, "Coercion"; Belova and Gregory, "Dictator"; Lazarev and Gregory, "The Wheels"; Markevich, "How much."

67. On corruption, see Heinzen, "The Art"; Grossman, "Subverted"; Clarke, *Crime*; Simis, *USSR*; Duhamel, "The Last"; Lampert, *Whistleblowing*. For a discussion of *blat* and corruption in today's Russia, see Ledeneva, *Russia's Economy*; Ledeneva, *How Russia*.

68. Berliner, *Factory*, 184, 197.

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bearing factory, 1,500 a Tula chemical factory, and 1,703 a Sverdlovsk factory, in order to negotiate nonplan deliveries.[69] On an average day, then, managers at important enterprises had informal dealings with perhaps a dozen negotiators from different firms, whose sole function was to enable the planned economy work by informal means.

To perform these tasks, state orders had to be manipulated and resources had to be illegally redirected away from official channels. Furthermore, according to the documents, this was just the tip of the iceberg; neither Gosplan nor the Ministry of Finance exerted any control or influence over the situation.[70] Authorities did not wish to intervene in these transactions, taking the view that the main reason for such informal dealings was fulfilment of the plan, not individual self-enrichment, and thus clearly legitimate. We also know that these practices had been widespread since the late 1920s, indicating that they were systemic features that had become permanent.[71] In a shortage economy, supply agents existed because goods were easy to sell and inputs difficult to buy. Under such conditions, it later emerged, resources acquired corruptly resulted in greater output than would have been the case with no corruption.[72]

Managers walked a fine line between informal but acceptable practices and outright theft. Anecdotal accounts of the black market surfaced in Soviet press reports, and researchers, myself included, have been unable to locate any substantially different evidence beyond these sources, possibly because no systematic surveys exist, possibly because they remain in the more inaccessible archives of the Security Police. However, primary sources provide a clearer vision of how authorities acted in response to reports of abuse of state property.

One party report noted that "to receive resources for illegal construction, enterprises and state farms put together fabricated documents in a series of cases under the appearance of outlays on basic activities or planned construction."[73] A typical Soviet-era "hustle" concerned access to metals, timber, and pasteboard. Country-wide data seems to be lacking, but in 1964 a total of 48 illegitimate structures were built in Gorky *oblast* alone, amounting to an appropriation of 677,400 roubles. A study of 2,560 state enterprises that same year revealed that 899 (34 percent) had begun construction of 3,091

69. RGANI, *f.* 13, *op.* 2, *d.* 2, *ll.* 10–12.

70. Ibid.

71. Studies of the 1930s have yielded similar conclusions. See Belova, "Economic." In *Behind the Façade*, Gregory, editor; Gregory, *The Political*, 174–77; Getty, *Pragmatists*.

72. Harrison and Kim, "Plans."

73. RGANI, *f.* 5, *op.* 41, *d.* 119, *l.* 87. Report from the All-Russian Council of the National Economy to the Bureau of the Central Committee, exact date unknown, year 1965. Microfilm.

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unplanned projects, for which they managed to receive a total of 9.6 million roubles. Chelyabinsk oblast performed worst of all, building 577 illegals for a total value of 1.6 million roubles. These were large amounts, by any standards, but Gosbank, in order to avoid local party conflict, seemed to have limited its response to a restriction of further credit.[74] In other words, the illegal use of resources was tolerated so long as its aim was not personal self-enrichment.

Authorities would prosecute, however, if informal practices were found to be patently disloyal.[75] Outright theft of construction material and the like was reported by the Security Police (at this time the Ministry of Internal Affairs or MVD) in a 1961 report. In one case, police arrested 18 people for stealing 100 tons of roofing steel and some 20 tons of wire and other materials, amounting to a value of about 40,000 roubles (roughly equivalent to forty months' salary).[76] As can readily be imagined, the only potential customers for such large quantities were other enterprises or those (e.g., party officials) with access to pecuniary perks.

Collusion and Protest

Besides dealing with other enterprises for resources, managers also had to ensure that production was maintained and that the workforce was reliable on the job. However, due to the costs of monitoring, both managers and workers enjoined a level of discretion that ran directly contrary to the principles of socialist planning. Managers indeed used such discretion in order to obtain resources informally, but the same principles applied to the workforce as well. The regime made several efforts at control using rewards and punishments, but such measures were not always effective. For this reason, hidden forms of collusion and protest persisted in the Soviet economy.[77]

A case in point is the coercive labor legislation introduced in the 1930s and 1940s. A highly publicized law passed in November 1932 decreed that absenteeism for more than one day would lead to immediate dismissal from work and eviction from one's home.[78] In late 1938, such rules were additionally strengthened by a redefinition of absenteeism as arriving more than twenty minutes late for work. On 26 June 1940, absenteeism and job-changing without the management's consent were made into criminal offences punishable by corrective labor (usually at one's place of work with reduced pay) or

74. Ibid, *l.* 132.
75. Harrison, "Forging."
76. RGANI, *f.* 5, *op.* 41, *d.* 198, *l.* 2. Report from MVD to the Bureau of the Central Committee of the Communist Party, December 30, 1961. Microfilm.
77. Harrison, "Coercion."
78. Meerovich, *Nakazanie*.

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prison (two to four months in jail). On 26 December 1941, job-changing in a war industry was made equivalent to desertion, punishable by up to eight years of deportation to the Gulag.

Criminalizing a wide range of behavior made sense for a rational dictator who suspected everyone but could not properly distinguish loyal from disloyal citizens. And correctional sentences, naturally, increased significantly. In 1940 the public sector workforce numbered around 30 million, and during the war, between 1 and 2 million prison sentences were handed down annually for illegal job-changing and absenteeism—an unprecedented level of incarceration. However, one interesting revelation to emerge from recent case studies is that much of the enforcement was more apparent than real. There were two main reasons: collusion by managers, who had incentives to conceal violations and who risked incurring heavy additional costs if they lost workers, and the failure of courts and police, for various reasons, to instigate proceedings. As Andrei Markevich and Andrei Sokolov have noted in their case study of a Moscow factory, "the utilization of the edict [of 26 June 1940] depended on relations within the work collective and individual connections and relations."[79] Stalin attempted to penalize noncompliant managers, but to little avail. Actual enforcement was significantly lower than the official figures for sentences would suggest, therefore, and the most coercive legislation was abrogated in the postwar period.[80]

With a few notable exceptions, strikes and collective action were eradicated during the early years of forced industrialization. Yet this did not mean such issues ceased to be of concern to Soviet leaders. The Politburo received weekly reports from security organs detailing any signs of protest and how such discontent was dealt with. All evidence of discontent was of interest to Soviet leaders, since they had very few channels through which to gauge public opinion.[81] We know now that, whereas about 170,000 workers had gone out in strike in 1923, fewer than 9,000 protested openly in 1930 (excluding protests in the countryside against collectivization).[82] The reason was simple. Independent trade union leaders had been imprisoned and older experienced workers were intimidated.[83] Some perspective is offered by a KGB report of 1969, which estimated that no more than

79. Markevich and Sokolov, *Magnitka*, 167.

80. Kragh, "Stalinist"; Kragh, "Soviet"; Filtzer, *Soviet Workers and Late Stalinism*; Solomon, *Soviet*.

81. Davies, *Popular*. For evidence on the operations of Security Police, see Berelovich and Danilov, *Sovetskaya*; Sevostianov, "*Sovershenno sekretno*."

82. See Murphy, "Strikes." In *Dream Deferred*, Filtzer, editor. On resistance in the countryside, see Viola, *The Unknown Gulag*.

83. Rossman, *Worker*.

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20 walk-outs, involving less than 1,000 people, had taken place that year.[84] The Brezhnev regime effectively curbed any signs of protest, relying on methods such as labor camp regimes, incarceration in psychiatric asylums, and even executions. Open protests were not to reoccur until *perestroika*.[85]

Repression did not make protest go away, however. According to A. N. Sakharov, the repression of collective action simply drove more people into covert forms of protest, including go-slows, unauthorized job-changing, and absenteeism.[86] This view has been elaborated in a series of monographs by Donald Filtzer, who has identified the antagonistic relation between labor and the regime as the "fundamental source of crisis in the Soviet economy."[87] High labor turnover and absenteeism (plus slowdowns, working-to-rule, and similar behavior) constantly concerned Soviet authorities, including in the post-Stalin period. As long as workers were free to relocate and could not be prevented from working more slowly, they were able to use such strategies to reduce their effort and thereby lower output. The nonpecuniary benefit for the workers was increased leisure at a relatively unchanged level of monetary compensation. Given that all possibility of collective action had been eradicated, this remained a viable strategy.[88] However, contrary to official Soviet discourse, such behavior was not the root cause of inefficiency. The major sources of losses of work-time—stoppages due to shortages of inputs to production—were concealed from official statistical publications.[89]

Waste and Inefficiency

Sovietologist Peter Wiles has observed that "an economy can be … irrational and yet grow quickly and achieve striking successes."[90] Be that as it may, Soviet enterprise managers confronted an incentive

84. RGANI, *f.* 89, *op.* 16, *d.* 10, *ll.* 3–5. Report from N. Petrovichev (Central Committee Department for Organization of Party Work) and S. Baskanov (Department of Heavy Industry), dated January 7, 1970. Addressed to the Central Committee of the Communist Party.

85. There were some minor but well-known instances of open protest in the post-Stalin period, such as the Novocherkassk uprisings in 1961. For a recent work on this uprising, see Baron, *Bloody Saturday*. For a general overview of the time period, see also Kozlov, *Mass Uprisings*; Kozlov, *Kramola*.

86. Sakharov, *Trudovye konflikt*; Zhuravlev and Mukhin, "*Krepost' Sotsalizma*."

87. Filtzer, *Soviet Workers and De-Stalinization*, xi; Filtzer, *Soviet Workers and Stalinist Industrialization*; Filtzer, *The Khrushchev Era*; Filtzer, *Soviet Workers and Late Stalinism*.

88. Kragh, "Stalinist"; Nove, *The Economics*, 89.

89. Filtzer, *Soviet Workers and Stalinist Industrialization*, 113–18; Kragh, "Exit," 171–2.

90. Quoted in Jasny, "A Note," 354.

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structure in which innovation was discouraged. According to Oscar Sanchez-Sibony, imported technology often lay idle for years, becoming redundant or dysfunctional from neglect. In Sverdlovsk in 1959, 70 percent of uninstalled equipment was deemed superfluous to current requirements. The same pattern was repeated for a number of locations and factories, including the costly imports of turbines, presses, and machinery. On occasion, such as a plant for salt production in Irkutsk, construction was delayed by 10–20 years. In another case, machines for producing tetra-pack milk remained unused because of a lack of paper of sufficient quality; it had eventually to be imported from Finland and Sweden.[91] Following the collapse of the Soviet system, if not from the archives per se, we have also learned about the environmental and health effects of reckless technology and investment strategies.[92]

A further problem affecting factory operations in the USSR was the tendency for production to lag behind plans in the first stages of the plan period, necessitating an increase in tempo towards its end in order to meet output quotas. This was a practice commonly known as "storming."[93] Authorities were well aware of this feature of industry, which seems never to have been solved. The reason was that storming resulted from shortages, which meant that production was idle primarily because of systematic distribution failures of inputs, or because materials delivered were of the wrong quality or quantity. The archives of two major Soviet institutions—Gosplan and the Central Statistical Administration—contain abundant quantitative evidence of how production, after remaining idle during the first stages of the plan period, typically increased significantly as the deadline for output quotas loomed.[94] In 1964, it was estimated that in an average month between 40–60 percent of planned output in many industries was produced during the last ten days.[95] Figure 2 illustrates the production of cars, tractors, and the Moscow factory "Dynamo." In the last ten days of an average month, production was 41.5, 46.9, and 76.9 percent, respectively, of total output.[96] In production characterized by storming, the phenomenon of labor hoarding was also typically observable.

Another aspect illuminated by the archival revolution is the unreliability of certain official statistics. Soviet authorities knew

91. Sibony, "Soviet Industry."
92. Josephson, "Atomic."
93. Berliner, *Factory*, 39–40; Granick, *Management*.
94. RGAE, *f.* 1562, *op.* 44, *d.* 3226, *ll.* 4–5. Report from the Central Statistical Administration on production in 1964.
95. Ibid. Report from the Central Statistical Administration on storming in industry in 1964.
96. GARF, *f.* 9553, *op.* 1, *d.* 61, *ll.* 210, 247.

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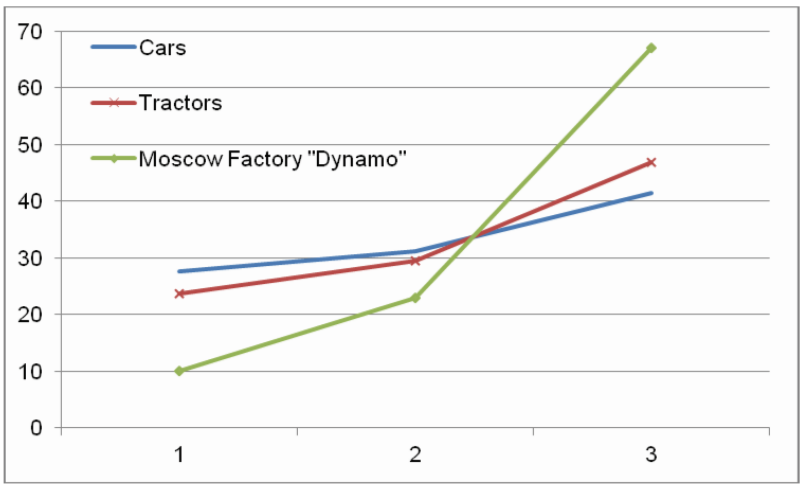


Figure 2 Storming in different branches of industry and enterprise, average month in 1966. Note: Figure shows plan fulfillment per ten-day period of the month in percent (total = 100 percent). The factory "Dynamo" was one of the largest producers of electrical machinery. Source: RGAE, f. 1562, op. 44, d. 3226, ll. 4–5.

that statistical reports from enterprises and ministries were sometimes completely useless, and when higher-quality data was needed, they would instigate separate surveys. One report from the Central Statistical Administration in 1965 commented in a briefing how "it is well known, that [data on] losses of labour time are underestimated ten times over."[97] They likewise reported how reported data on overtime was seriously misleading due to the "falsification" of work records at the enterprise level.[98] For example, a director at the factory "Stalinskpromstroy" reported 105.5 percent plan fulfilment in 1957 while simultaneously admitting to "large inadequacies in labor and industrial discipline, an enormous amount of absenteeism, and a very low level of discipline at various sectors of the enterprise."[99] The system worked because plan targets were low enough that managers could rely on meeting them by storming towards the end of the month, quarter, or year. In the interim, production might be more or less idle for extended periods of time. Managers had few incentives to increase output since they risked being assigned more ambitious plan goals in the future, a phenomenon known as the

97. RGAE, *f.* 1562, *op.* 37, *d.* 3224, *l.* 39. Report from the Central Statistical Administration, dated 8 March 1965.

98. RGAE, *f.* 1562, *op.* 45, *d.* 3543, *l.* 5.

99. GARF, *f.* 5451, *op.* 26, *d.* 1225, *l.* 53. Undated report, probably written somewhere around August or September 1958.

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"ratchet principle."[100] Similarly, they had no incentives to economize on inputs, since their potential rewards (bonuses) depended only upon meeting their assigned output level. Soviet managers faced an incentive structure that will be familiar to anyone who has ever been given a budget within a hierarchical organization: use your assigned resources, or lose them. As Gregory has pointed out, by the 1930s, Soviet authorities had already dispensed with any illusion that they were engaged in actual planning.[101]

Concluding Remarks

Despite the advance of democracy in recent centuries, the majority of the world's population still lives under dictatorial or autocratic regimes. Likewise, even though the advent of free markets has been heralded as a hallmark of the modern era, the majority of humanity throughout history has worked under coercive relationships, and many large economies continue to display significant non-free-market elements. According to observers such as Polanyi and Kornai, planning in centralized economies was subject to exponentially growing asymmetries in information, and was therefore subject to declining economies of scale. The Soviet experience has provided social scientists with a wealth of sources that illustrate this mechanism in practice, as well as the way in which it was circumvented for almost seven decades.

The collapse of the Soviet system has made primary sources available to an extent previously unimaginable. Although disagreements persist, the archival revolution has indisputably confirmed and substantiated our previous knowledge, with new sources providing details on matters previously only poorly understood. Returning to the distinction made in the introduction, we can pose the question: What revelations can be said to have provided new and more precise data about the scale of phenomena we already knew, and what revelations have provided not only a quantitatively but also a qualitatively new understanding of the Soviet economy?

As regards governance, we now understand more fully *who* made the key decisions and *how* they were made. These revelations have provided us with a qualitatively new understanding of decision making under Stalin. And even though the Soviet principles of secrecy came as no surprise, we are now able to gauge the extent and costs

100. Prearchival literature, both empirical and theoretical, provide much knowledge on managers' incentives. See Weitzman, "The New"; Weitzman, "The Ratchet"; Birman, "From the Achieved Level."

101. Gregory, *The Political Economy of Stalinism*, 110–25.

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of concealment of information for the economy. Research on science, technology, and the military has illustrated the practical mechanisms of resource allocation in the Soviet system and how the use of vertical integration and informal networks helped solve important information problems. The nature of these initiatives, which often emanated from below, was only poorly documented prior to these important revelations.

As regards investment, we have a better insight into the strategies of economic planning and allocation of production facilities, and we have better statistics on actual growth. Archival research has confirmed what we knew about the challenges faced by authorities when attempting to manage imbalances between investment and consumption, as well as chronic shortages of inputs and consumer goods. While previous assessments remain unchallenged, they have been complemented by a more refined understanding of the financial system, the wider role of firms, and the regime's difficulties in managing its credit system and international debts. Such revelations would not have been possible without archival access.

Lastly, archival research has also confirmed a number of previously noted phenomena in enterprise management. Considering the quantity of official Soviet publications and émigré reports detailing issues such as informal market networks and inefficiency, new sources have mostly substantiated our earlier understanding and contributed some more details. However, we now better appreciate the mechanisms and scope of informal networks and collusion, thanks to the possibility for the first time of consulting information about the institutional context, including detailed statistics and factory reports.

In conclusion, most revelations about the Soviet economy have provided, in particular, new and more precise data about the scale of phenomena we already had identified, and only occasionally added something qualitatively new that we did not know before. And yet the availability of primary sources has conferred many other advantages on the historian, providing a comparative benchmark, helping to distinguish the anecdotal from the general, and being of greater critical value than most secondary sources.

Tentative Prospects for Comparative Business History

As Thomas Owen has noted, Russian business history, particularly for the Soviet era, remains in its infancy.[102] We still have only a few case studies of enterprises, mostly in Russian.[103] In comparison with

102. Owen, "Recent Developments."

103. Zhuravlev and Mukhin, *Krepost*; Markevich and Sokolov, *Magnitka*. The emergence of Soviet cinema was chronicled by Miller, "Soviet."

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the secondary literature on other dictatorships or nonmarket economies, such as Nazi Germany and the DDR, the number of monographs remains small.[104] Of necessity, this article has, therefore, dealt with the Soviet enterprise at the level of business systems more than that of the individual firm. Other important dimensions, such as geography and changes over time, were discussed only as they related to decision making and technology transfer.[105] In part, this reflects my ambition of providing sufficient political, social, and institutional context to create a point of departure for possible comparative outlooks; the downside is that the notion of "enterprise" has been described in a somewhat stylized way.

Although some of the arguments outlined here are not exclusively the outcome of archival research, it is possible to summarize three tentative implications for business history from the Soviet experience. First, the hierarchy of the plan economy did not rule out formal and informal networks between individual enterprises. On the contrary, the evidence suggests that such relations were necessary for the practical allocation of resources. A useful comparison can be made here with the documented usefulness of networks in weak institutional economies, where they reduce transaction costs, or with the overall size of secondary economies.[106] Furthermore, the fact that innovations were most successful when implemented from below gives food for thought about the state's role in technological development. Comparisons were made with the Chinese experience, and other parallels exist with the changing role of business–government relations in twentieth-century capitalism,[107] and with discussions of the recent decline of state ownership in Western economies.[108]

Second, enterprise managers and workers enjoyed a not-insignificant level of discretion. This meant that managers could engage in informal activities, and workers could reduce their effort and thus lower output in exchange for more leisure time. The regime attempted to curtail collusion, rent-seeking, and opportunistic behavior, but the use of coercive measures was restricted by the costs of monitoring, personal relationships, and weak enforcement. Accordingly, although coercion was the governing mechanism of the Soviet economy, it could not necessarily generate the desired results, and it was also costly. Parallels may be drawn here to work in other fields, including studies by organizational

104. Schröter, "Business."
105. For a geographical analysis of industrial allocation patterns, see Kumo, "Soviet."
106. See, for example, Carnevali, "Between."
107. Kipping, "Business."
108. Toninelli, *The Rise*.

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sociologists[109] and recent research in political economy into different regulatory regimes and varieties of capitalism.[110]

Third, the functioning of the Soviet enterprise was clearly affected by pervasive shortages. Delays, stoppages, and volatile output flows were characteristic features of Soviet industry that could not be reformed away. Planned output targets were based on previously achieved levels, for which reason firms could fulfill their quotas despite significant levels of slack. Given such incentive structures, enterprise managements had few incentives to increase the level of efficiency. These phenomena offer a promising point of comparison for business historians working in the tradition of Albert O. Hirschman, for whom "slack" and uncertainty were inevitable ingredients in all organizations.[111] Just as planned economies failed miserably in avoiding the alleged pitfalls of capitalism (e.g., waste, pollution, exploitation), so, too, may many social scientists have underestimated the scope for inefficiency at the level of enterprise in otherwise normally functioning market economies.

Finally, it may be noted that research into the Soviet economy has benefitted by moving away from being a specialist field in its own right in order to engage with the social sciences more broadly. This has allowed scholars to branch out and apply their findings to fields such as institutional theory and political economy. Similarly, business history stands much to gain from the study of comparative economic systems. The Soviet experience provides us with a wealth of knowledge for comparative studies on a diverse range of topics—regulation, bureaucracy, entrepreneurship, transition economies, informal market networks, corruption, and economic crime—that ought to be of interest to the field of business history as a whole. Further applications exist, for example, in the study of internal management of multidivisional firms, defense industries, foreign direct investment in nondemocratic regimes, and the regulation of public enterprises in mixed economies.

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109. This literature is large; for an overview, see Granovetter, "Economic."

110. A recent introduction to business history is Richard, "Bringing."

111. Hirschman, *Rival*. For an application of this approach to financial history, see Kobrak, "Family."

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GARF

f. 5451: All-Union Central Council of Trade Unions
f. 8131: State Procuracy
f. 9553: Ministry of Labour and Social Questions (1955–1991)

RGAE

f. 1562: Central Statistical Administration

RGANI

f. 5: Organ of the Central Committee
f. 13: Bureau of the Central Committee
f. 89: Documents declassified by the Special Committee on Archives under the President of the Russian Federation

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