

Secrecy*

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Abstract. We consider why and how the Soviet state guarded its secrets, using the defense industry as an example. Stalinist secretiveness was all-embracing, but it did not only keep secrets from society or the foreign enemy. Soviet officials also became adept at keeping some secrets from each other. But they were curiously careless about upholding secrecy in other cases. One of the most interesting aspects of secrecy is that, while it had an obvious rationale for the dictator, it is less clear why his individual agents should have chosen to uphold it. The prevalence of leaks, after all, is one of the things that makes some societies more open. The Soviet Union kept some secrets only by threatening dire punishments for disclosing them. In other cases it turns out that secrecy was one of those structures of Soviet life to which everyone could adapt and from which anyone could learn to turn a ruble.

All governments have secrets but some are more secretive than others. In modern democracies public debate often takes the merits of transparent government and an open society for granted. But even in societies where transparency and freedom of information are officially the norm, there is always a core of government where information is gathered and decisions are taken in secret. There are also states where most things are secret. The Soviet state was of the latter type, and was among the most secretive states that have ever existed. Many things were kept secret that in most other societies would be regarded as information open to all. It was not just a matter of keeping this information from the public in the press, on the streets, and in the factory canteens. Just as

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significant were the many secrets that relatively high-ranking officials kept close to themselves and preserved zealously from each other.

Evidently, Soviet leaders were willing to pay a substantial price to hold power in secret. Secrecy was costly. Directly, it was costly to enforce; indirectly, it also damaged the efficiency of the economy. *Enforcement* required procedural rules for the creation, numbering, distribution, tracking, conservation, and filing or destruction of secret documents. It also required an apparatus to monitor and investigate cases of disclosure. The punishment of disclosure resulted in the loss of human capital previously invested in agents who turned out to be disloyal. *Efficiency* costs arose because secrecy created barriers to the sharing of information that was required to allocate resources efficiently; secrecy meant, for example, that principals decided the general allocation of resources in ignorance of specific facts, while agents determined allocations in detail although they were kept in the dark as regards the broader implications of their decisions.

The likely costs of Soviet secrecy suggest that we should inquire closely into its fundamental purposes. Why secrets? Who benefited from the regime of secrecy, and how? Connected with this is the further issue of “excessive” secretiveness. What is the optimal level of secrecy for a government? Did Stalin’s regime take secrecy too far? Why was the Soviet system so *extremely* secretive, and did the costs of secrecy contribute to its eventual collapse?

One of the obstacles to research on secrecy is that *the regime of secrecy was itself a secret*. The issues that it raises could hardly be investigated while this regime persisted. The chance to study it empirically emerged only after the Soviet Union ceased to exist. Even then, as the historian Jonathan Bone (1999: 66) has pointed out, the attention of historians was diverted from it by the transfer of interest away from the “top end” of the Soviet system to Soviet society and, in particular, to the “subtleties of the state-society interface”; and by the greater interest in “exhuming the Stalinist past rather than in the relatively prosaic work of analyzing it in full forensic detail.”

Indeed, it is not at all obvious how to investigate secrecy. The evidence of Soviet secrecy is preserved everywhere in the archives, in millions of documents each stamped with its security classification and numbered for limited circulation. But the evidence of its consequences, of how people adapted to it, and how they sought to exploit it, is not held anywhere in particular. It is scattered randomly through the archives. Most of the evidence in this chapter was found accidentally in the course of other research, and most of the latter was found by others who kindly drew it to my attention because they were aware that I would be interested.

In this chapter I will describe some aspects of the official practice of secrecy in the Soviet Union under Stalin, using the evidence primarily of the defense industry. This description is necessarily incomplete, because it is not balanced by evidence of the degree of secrecy either in civilian branches, or in the prerevolutionary market economy. Then, I will look at the enforcement of secrecy. I will make a simple point: it is easy to see why governments and states should value secrecy collectively, but secrecy will not hold each individual agent of the state upholds it. This makes the operation of secrecy a problem of

individual motivation. Finally, I will look at the reasons why it might have suited principals and agents in the defense industry to withhold or trade information.

The Practice of Secrecy

Soviet secrecy seems to have been tightened under Stalin in a series of discrete steps; this claim is a first approximation and there is no doubt that future research will refine or modify it. The steps are set out in Figure 9.1, but the figure is just an illustration and the reader should not take it too seriously for a number of reasons (1) we have no way of measuring units of secretiveness so as to calibrate the vertical scale (2) the implied “zero” of secretiveness where the horizontal and vertical axes intersect is completely arbitrary (3) there is no reason to suppose that secrecy increased by equal increments at each step (4) we have not had the opportunity to make any special study of secrecy before the Revolution so as to provide a baseline for “normal Russian” secrecy (5) the idea of “normal Russian” and “normal Soviet” secrecy is a conjecture, not a fact. As well as rising secrecy the figure also measures falling standards of disclosure under Stalin’s rule, and this does have a quantitative index, proposed by Abram Bergson (1953), in the length of successive five-year plan documents on publication.

<Figure 9.1 here.>

The Bolshevik Revolution of 1917 brought to power an underground revolutionary party organized on conspiratorial lines with secret lines of communication and secret decision-making processes. Its habits became the habits of government, which began to rule by conspiracy; one of its first acts created political censorship (Goriaeva 2002).

There were many secrets already in the 1920s, with much political and military information classified in continuity with the pre-Revolutionary practices of the Imperial government. Jonathan Bone has shown that the whole system for classifying and handling information was codified by the OGPU in 1927, following a scandal involving the careless handling of secret papers. The documents he has cited (1999: 70-74) make clear that at this stage the whole of defense industry fell within the bounds of secrecy. Classified “top secret” as “matters of a military nature” were all orders, plans, correspondence, financial allocations, and other information relating to mobilization plans for industry and the economy generally, both in detail and “in any way revealing the general mobilization system.” Also top secret were the “condition and production plans of military and aviation factories” and their new construction. Merely “secret” were information concerning naval shipbuilding and repair, correspondence relating to the procurement of imported military equipment, information about the location of individual defense factories, information concerning their supply with equipment “giving the possibility of drawing conclusions about factory capacity,” and photographs or plans of civilian factories supplying military goods. It was at this time that the core factories of the defense industry lost their names and

addresses for public purposes and became known, if at all, by factory number and mailbox number (Cooper 1999).

Notable, also, under “material of a general nature,” is the “secret” classification of “the organization of secret document handling; procedure for conducting and archiving secret correspondence” (Bone 1999: 74); this ensured that the conduct of secrecy was kept hidden.

The transition to the command system that followed almost immediately in 1929/30 further reduced society’s access to information. This came about naturally, without any new measures, because the state expanded at the expense of society and so automatically monopolized a much larger share of the information being produced.

The fog thickened further in 1937. The publication of previously available economic statistics was suspended, and this condition persisted for two decades. This made little difference to the defense industry, which was entirely secret already. Many other interesting aspects of Soviet life disappeared from the public record at this time, however. Anne Applebaum (2003: 109-11) has described how, in the first years after 1930 when the Gulag was established, the reeducation of criminals through labor was seen as fit for public discussion. By 1937 most of those associated with the propaganda of “corrective labor” had been arrested and their writings had disappeared from the public sphere. The procedures for complete concealment of the Gulag were in place. By 1940 the internal correspondence of the NKVD gave rise to 25 million secret courier items annually.

The approach of war in 1941 made little extra difference because just about everything was secret already. It was after the war, in 1947, that secrecy was heightened even further. In response to unauthorized disclosure in the west of some potentially valuable Soviet medical research Stalin introduced a new law that further widened the scope of state secrets and committed further resources to enforcing them. At this time secrecy was at a level that was difficult to enforce: ministers complained that the new law required thousands of officials to act to preserve state secrets, but many of these same officials could not be informed of their new obligations because they were not cleared to receive information at a level of classification corresponding with that of the decree (Gorlizki 2002: 721). But this may not have been a new state of affairs. Speaking with the party secretaries from Leningrad’s secret defense factories in the mid-1930s the local party chief Andrei Zhdanov referred to the “game when secrecy is such that the people who are accountable for implementing programs and introducing new production lines don’t know what the programs are, and on the other side enemy sources acquire information earlier than our party people.”¹

Stalin’s death, and Khrushchev’s distancing from his former patron, brought some relief from this suffocating condition. Addressing the twentieth party congress in February 1956 Stalin’s former deputy and trade minister Anastas Mikoian remarked drily: “Without the most careful examination of all the statistical data that which we possess in far larger measure than at any other time

¹ Hoover/RGASPI, 77/1/826, 67 (December 12, 1936).

and in any other country, without organising these data, without analysing them and generalising from them, no scholarly economic work is possible. It is a source of regret that the statistical data are still classified secret in the central statistical administration in comrade Starovskii's safes." (Vladimir Starovskii was the Soviet Union's chief statistician, holding office continuously from October 1940 to August 1975.) In the same year the statistical authorities were allowed to resume the annual publication of an economic yearbook. But they retained a strict monopoly of statistical publication; as late as 1987 the appearance of the first unofficial estimates of Soviet economic growth in a literary journal was a publishing sensation (Khanin and Seliunin 1987).

Under Khrushchev and his successors, right up to the end of the Soviet state, the defense industry remained top secret. In his memoirs Mikhail Gorbachev (1996: 136, 215) has written that until he took office as general secretary in 1985 "All statistics concerning the military-industrial complex were top secret, inaccessible even to members of the Politburo"; "only two or three people had access to data on the military-industrial complex." He recalls that the long-serving defense minister Dmitrii Ustinov "essentially had monopoly control" over defense information; it was a serious breach of protocol for outsiders, including other Politburo members, even to question him. According to military sources of the same period (cited by Firth and Noren 1998: 260n), the true scale of military funding was known to "only four men . . . the General Secretary, the Council of Ministers Chairman, the Minister of Defence, and its Chief of the General Staff." Iurii Masliukov, a leader of the Council of Ministers military-industrial commission under Gorbachev, has confirmed that "Until 1988 summary figures concerning the defense of the country were considered to be a secret of exceptional state importance; a limited circle of people (the leadership of USSR Gosplan and not even all Politburo members) were familiar with them. It was forbidden to copy such figures in the typing pools, and they were circulated in documents by authorized individuals from hand to hand" (Masliukov and Glubokov 1999: 105).

To summarize: secrecy pervaded the command system of the Stalin era. Secrecy rules built elaborate firewalls that impeded information flows not only from state to society, or from the Soviet state to other states, but also within the state itself. Even within the privileged official sphere information was shared on the basis of need rather than right to know, and the need to know was defined within limits that appear to have been extraordinarily narrow. Secrecy rose and fell; at the moment we do not have a good explanation of this, other than to say that perhaps a dictatorship needs a lot of secrecy to flourish, and increasing secrecy was one of the first steps of the Bolshevik regime. There can also be too much secrecy and it seems as though the secrecy of the late 1940s was too much even for a secretive dictatorship.

Enforcing Secrecy

Soviet law penalized the disclosure of official secrets by various means. In the extreme, Article 58(6) of the Russian republic's criminal code punished

“espionage, i.e. the transmission, theft, or collection, with a view to transmission to foreign States, counter-revolutionary organizations, and private individuals, of information accounted by reason of its contents an especially guarded State secret” (Conquest 1971: 743-44). In principle the same law distinguished cases leading to “especially grievous consequences to the interests of the USSR,” punished by execution, from less serious cases for which a term in the Gulag was prescribed.

The practical distinction between large and small secrets was probably arbitrary and time-varying. The limited official propaganda suggested that petty revelations were as damaging as more serious ones. As a journalist wrote in 1953: “In questions of the conservation of party and state secrets, in information that is not intended for disclosure there are no such things as trifles. Sometimes information that is insignificant at first glance can be of great value to a spy.”² The testimony gathered by Alexander Solzhenitsyn (1974: 63-64) suggests that the violations that led to terms of forced labor were often trivial or fabricated. The burden of proof in such cases was evidently low, possibly because it was the kind of thing almost anyone could have done, and therefore in fact probably had done regardless of the evidence that was actually available.

Soviet penal practices do not seem to have placed much emphasis on guilty intent or premeditation, as opposed to the accidental or negligent disclosure of state secrets. The sheer scope of secrecy made careless disclosure a serious problem. John Barber et al. (2000: 21) recount that in the spring of 1937 the heavy industry commissariat published figures for the gross output of its civilian products alone, while Gosplan simultaneously published the overall gross output of heavy industry, permitting anyone to compute the value of defense output as the residual. An alarmed reaction from within Gosplan demanded strict punishment of the responsible officials in industry. A clampdown on statistical publication began at about this time and lasted until the post-Stalin thaw.

Extensive secretiveness and the ease of careless disclosure made for an environment in which it was virtually impossible for everyone to keep the right side of secrecy regulations at all times. Anyone could let slip a “trifle” at any time and, even if they did not, could readily be accused of having done so. This forged the law into a powerful instrument of repression. Cases of espionage under Article 58(6) on its own or in conjunction with other articles made up 15 percent of the roughly 8,000 executions carried out by the NKVD in the Leningrad district in August, September, and October 1937 (Ilič 2000: 1529). The same proportion applied to the national figure of 681,692 executions by the NKVD in the course of 1937/38 would suggest up to 100,000 cases of espionage that received capital sentences across the country in the years of the Great Terror; this should be considered an upper limit since the proportion of cases in Leningrad may have been raised by the high concentration of military and defense-related facilities in that locality. On the other hand, since execution was reserved for more serious

² Hoover/GARF, R414/4/193, 296. This passage is from an article titled “Strictly Observe Party and State Secrets” in the August 18, 1953, issue of the daily newspaper of the Noril’sk combine, discussed further below.

cases, and some cases were presumably judged to be trivial, it is likely that this was the tip of a somewhat larger iceberg comprising all the cases where espionage was alleged.

Stalin and Beria used the fact that the laws on secrecy were difficult to uphold conscientiously in the postwar “Gosplan affair.” Stalin had lost faith in his former favorite, Gosplan chief N. A. Voznesenskii. Investigation then revealed a history of poor handling of secret documents in Gosplan, with many papers that were missing or, if not missing, should have been destroyed. This established the charge on which Voznesenskii and many of his subordinates were executed (Khlevniuk et al. 2002: 274-307).

Collective and Private Motivations

What was secrecy for, officially? Throughout this period it was seldom acknowledged in public that secrets existed, and then only in the abstract. A limited-circulation newspaper of the early 1950s provides a rare rationalization of official secrecy and illustrates it at the same time.

The Noril'sk combine was the major Soviet producer of nickel and a number of other nonferrous metals of which the defense industry was a major consumer. On August 18, 1953, its daily newspaper published a leading article “Strictly Observe Party and State Secrets”; this was after Stalin's death and the arrest of Lavrentii Beria but before the Thaw.³ The unnamed writer reminded readers that the party's constitution obliged its members “to observe party and state secrets, to show political vigilance, remembering that the vigilance of communists is necessary in every organization and every circumstance. Revelation of party and state secrets is a crime before the party and incompatible with membership of its ranks.” The article continued:

The imperialists are assigning hundreds of millions of dollars to disruptive work against the camp of socialism and democracy. The capitalist encirclement is dispatching its agents to our country and is looking for persons ready to betray the interests of the Motherland and fulfil the assignments of the intelligence agencies of the bourgeois states to undermine Soviet society. Lacking social support in the Soviet land, despairing at its unforeseen moral and political unity, they try to exploit the dregs of society in the persons of diverse renegades and degenerate elements.

. . . In the party midst there are still to be encountered individual chatterboxes and scatterbrains. They are not averse to bragging of their inside knowledge among friends and acquaintances, in the circle of their families, by telephone and in personal correspondence and so forth. . . . [We must] explain to the Komsomols [party youth members] that questions considered at closed party meetings cannot be the subject of public scrutiny, that the contents of secret party and ministerial documents are not a subject for conversation even with the most intimate persons.

³ Hoover/GARF, R414/4/193, 296.

The *rationalization* of secrecy in this quotation was, in other words, as follows: hostile states threaten us from outside, for this reason we must conceal our arrangements and capabilities. In this context, secrecy is a collective good. The *illustration* of secrecy is that the Noril'sk combine was an MVD forced labor camp, the existence of which was itself a state secret: reflecting this, it managed to publish a daily newspaper that avoided printing any information that could reveal *which* combine, *who* owned it and *whom* it employed, *where* it was located, or *what* it produced.

What is the problem for which secrecy was a solution? Western social and historical science has given rise to two views of secrecy. In the tradition of Max Weber (1922/1968) secrecy is seen as providing a private benefit to bureaucrats, who naturally incline to secrecy because it protects them from criticism and the need to account for their actions. Those who adhere to this tradition recognize that the effects of secrecy may be costly but the costs are borne by society, not the bureaucrat. Some costs are political: secrecy tends to undermine democratic values by stifling debate and weakening accountability (Colby 1976; Moynihan 1997). Secrecy may also harm economic efficiency; for example, technological secrecy may be associated with a high level of duplicated inventions (Zhores Medvedev 1977) and military secrecy may encourage scientific fraud (Park 2000). Because the bureaucrats do not pay these costs, however, they will always choose secrecy which, from this perspective, is simply the natural condition of government. A Weberian approach to Soviet secrecy (Tarschys 1985) therefore emphasises secretiveness as a shared historical feature of European bureaucracies, and as a legacy that Russian autocracy passed on to Stalinist dictatorship. It does not explain why "normal Soviet" secrecy was so much more intense than "normal Russian" secrecy in the absence of Soviet institutions, nor does it explain why Stalin also took secrecy so far beyond any concept of the normal.

An alternative approach to secrecy stems from the rational-actor tradition in the theory of international relations (Schelling 1963). The rational actor is the state as a whole, not the individual official. Secrecy is seen to provide collective benefits to the state but again it is costly. This approach is not concerned with the social costs; rather, the state itself bears opportunity costs of implementing and enforcing secrecy. Abram Bergson (1953: 14), for example, understood Soviet secrecy in terms of two motivations, national security and "effective propaganda to create favorable impressions," but he also alluded to the costs of secrecy to the state measured by the conflicting "need to release data for the operation of a nationwide planning system, including the training of personnel." As long as the state is behaving rationally by counting the costs as well as the benefits, the rational-actor tradition suggests that we should see secrecy as a choice, not a natural condition; such a state would choose to cut secrecy back, for example, if its marginal costs began to exceed its marginal benefits.

Given the existence of a voluminous literature on the economics of information, economists might be expected also to have shown an interest in secrecy. Much has been written about information that happens to be costly to observe or verify, but official secrecy is of greatest interest where it concerns the state's need to erect artificial barriers to the transmission of information that

would otherwise be easily observed and shared, for example the location and business of a factory. Similarly, there is a great deal of work on the sort of information that people have a natural self-interest in keeping to themselves, for example their private medical history. Again, official secrecy is of interest precisely because those who are entrusted with secrets do not necessarily have a direct personal stake in keeping them; secrecy benefits the state as a whole, rather than any individual official.

In short, there is no ready-made theoretical framework for understanding the political economy of official secrecy. My starting point is Bergson's observation that the Soviet state had a natural collective incentive to conceal information for the sake of national security and the reputation of the state. From this point of view it is not hard to understand why the defense industry should have been kept secret. I go beyond this, however, in claiming that *collective* motivations alone cannot explain the development of secrecy within a state. Secrecy may be in the collective interest of governments and other organizations, but that is not enough. History tells us that secrecy is effective only when it also corresponds with the *private* interests of individual decision makers; otherwise, they will have private incentives to ignore rules and reveal information or permit others to reveal it. Dilbert illustrates this perfectly in Figure 9.2. Every time we read in the press that some unattributed source inside a company or close to the administration has leaked damaging information, we see that private and collective incentives have got out of alignment and the private one has prevailed. Effective secrecy requires some mechanism to bring the private incentives back into line with the interests of the organization. Otherwise, it will fail.

<Figure 9.2 here.>

The Soviet context provides evidence that this was not just a theoretical possibility but an everyday problem. On one side Stalin regarded secrecy as vital to national security. On the other, the officials responsible for it often did not care enough about it themselves to stick conscientiously to rules. Officials of the interior ministry and the labor camp system regularly put secret documents at risk by failing to store or transport them securely (Harrison 2004 gives examples). In the defense industry itself, the party central committee issued a decree in May 1934 on the system of security passes and guard duties at defense industry establishments. A subsequent investigation by KPK, the central committee's audit commission, revealed an apathetic response and widespread violations. Reprimands and recommendations had little effect over the following weeks. As follow-up investigations and measures showed, only widespread punitive measures elicited change in the desired direction.⁴

⁴ For the KPK investigation, Hoover/RGANI, 6/1/35: 10, 15, 51, 52. For the follow-up measures, Hoover/RGANI, 6/1/41: 71-72. Harsh penalties sometimes led to over-compensation; the director of the military chemical industry's factory no. 6, for example, had his juniors kidnapped to test their courage and see how they would behave "in the event of arrest by adventurists" (Hoover/RGANI,

The economic historian Avner Greif (2000) has proposed that any institution that persists must be understood as an equilibrium at the level of all the individuals taking part in it: each person participates because it is in their interest to do, conditional upon their expectation that others have made the same calculation. If this is not the case, the regime will fall apart. The inference that I draw is that, to explain the extreme secretiveness of the Soviet state, we must look at who benefited from it and how the benefits were shared.

Market Information

Information comes in many shapes and sizes, not all of them valuable. In this chapter we will think about two kinds of valuable information that I will call market information and strategic information. We can think of bureaucratic principals as having clear incentives to limit the sharing of both strategic and market information, and we will think briefly about the reasons for doing so and the obstacles they faced.

First, market information: this is the information that buyer and seller must exchange in order to make a deal. Without this information, exchanges would be of lower value, or would not take place at all. The information is valuable because sharing it makes both sides better off. An example would be market research. Buyers carry out research to learn the reputation of sellers and the characteristics of their products. Sellers carry out research to identify buyers and customize products to their preferences. As a result, everyone can make more efficient choices.

We can stylize the process of planning in the Soviet economy as follows (this account is based on Harrison 2005). A principal issued an order to an agent at a lower level. The order was a demand for output, but the plan also included the advance of some resources for the agent to use in order to carry the order out: for example, a wage and some equipment and materials. This plan was also a legal claim to monopolize the agent's activities. The plan stated what the agent was legally required to do with the principal's advance, but it went beyond this: anything that was not in the plan was prohibited and the agent was legally obliged *not* to do it.

But the principal could not observe what the agent did next, and only got to see the end results in some later period. In between, the agent had a choice: be obedient and try to fulfil the plan, or set out to cheat the principal. Of the many kinds of cheating the one we will focus on here is the idea that the agent could use the principal's advance to go into business and trade on her own account. If that paid better than fulfilling the plan, then cheating was the agent's best choice. Cheating was bad for the principal, however, not only in the obvious sense that it might leave the principal materially worse off. Even if the agent could find a way of gaining while leaving the principal no worse off and none the wiser, cheating could still damage the principal by shifting the distribution of power and authority

6/1/91, 16, 19). On the treatment of documents in the interior ministry see Harrison (2004).

in the economy gradually in favor of the agent. Taken to its logical conclusion, it clearly had the potential to subvert the command system altogether and lead to its replacement by a market economy.

<Figure 9.3 here.>

To illustrate market information, consider Figure 9.3. Agents 1 and 2 report to their principal, say, the minister for atomic weapons. Agent 1 supplies fissile materials such as uranium and Agent 2 is the bomb builder. The basic structure of the command system that we outlined in Chapter 3 requires that the minister orders the materials supplier (1) to advance uranium to the bomb builder (2), who returns the finished device to the minister. In theory everything goes according to plan. Market information is exchanged *only vertically via the principal*. The principal sets the requirements and funding of agent 1, and knows the capabilities and costs of agent 2. There is no need for agents 1 and 2 to have any *horizontal* contact with each other, apart from the moment when the materials change hands. The market information adds value to the transaction but, since only the principal holds all the information, only he can extract the added value.

One of the standard criticisms of the planned economy is that this is a very costly and imperfect way of using market information; moreover, the agents have no incentive to disclose it because they do not gain from sharing it. Because they do not share their information, there will be mistakes and gaps in the inside principal's knowledge of each of his own agents taken separately, and he is likely to make more mistakes in his allocations than if his agents were left to agree between themselves on a voluntary market transaction. These mistakes will reduce the total of value that is added. If the principal were altruistic, the efficiency loss should be sufficient to induce him to give up his coordination role and leave coordination to market interaction among the agents. But, while this would lead to fewer mistakes and more value, the principal would not only be unable to extract any of the gain, which would accrue to the agents, but would also lose the ability to extract any surplus at all.

In other words, the power of a selfish principal depended on preventing a market from arising among the agents below him. It is one more step to suppose that this power rested, in part, on stopping market information being exchanged at lower levels.

Again, consider the agents in Figure 9.3, the supplier of fissile materials and the bomb producer. There is scope for one or both of these to do a little market research and starting trading on their own account, either with each other or with an outsider. Plenty of people are potentially interested in privately acquiring fissile materials. What's to stop agent 2 delivering a little uranium on the side to a research physicist short of materials for experimentation, the agent of a foreign power interested in atomic blackmail, or a criminal gang with plans for organizing the illicit trade? There are many more mundane examples, too, from gun-running to the theft of valuable materials for relatively trivial uses. From Soviet times, the author recalls seeing hand-crafted bottle-openers on sale in a Moscow market, made out of titanium diverted from a weapons factory.

For serious business, the agent had to be ready to exchange market information with outsiders. She needed to undertake some market research and also advertize her goods. The better her outside market knowledge, and the better the market's knowledge of her, the more likely she was to find a deal that improved on the inside wage offered by her principal. She also had to build trust with outsiders. As Avner Greif (2000) has emphasized, market transactions that depend on a sequence in which one side has to move first must overcome the fear of being cheated. Where the law is ineffective, and crime is unorganized, illegal transactions rely on trust, or "honor among thieves." Thieves build mutual trust partly by the prior exchange of verifiable information: "How do I know you have the goods?" "Let me see the money." Just as she is proposing to break trust with the principal so as to steal from him, the agent has to trust the outsiders in the illegal market not to steal from her. And they have to trust her not to betray them to her principal.

This is where official secrecy helped the Soviet principal: it reduced the agent's expected gain from betraying the principal and going into private business by a discounting effect and a threat effect. The *discounting effect* arose because secrecy made information unverifiable and so put a discount on its value; this is bad for horizontal trust. To continue as an unofficial trader the agent must work harder to offset the discounting effect and take more risks to establish her credibility: "Look, I could get ten years for this too."

The *threat effect* arose because, when the sharing of secret information was detected, both sender and receiver risked punishment. The threat was directly costly to the agent. Indirectly, it also damaged the outside network in a way that would reduce profit opportunities. Outside opportunities were likely to vary directly with the scope of private networks in the same way as economic efficiency generally increases with market size. But as more people were involved the risk of detection increased. Thus criminalizing the sharing of information was likely to reduce the scope of criminal organization: "We don't need them; they don't need to know." In turn, narrower networks implied lower outside profits.

Evidently, secrecy was not a sufficient condition for eliminating illicit trade and corruption. In the defense industry in the late 1930s some suppliers of non-combat equipment sold it more profitably on the side than to the Red Army (Harrison and Simonov 2000: 236). A maker of gun accessories was caught selling off capital equipment and undeclared stocks of finished goods rather than continue to supply the military (Markevich and Harrison 2004). But it is hard to know whether this was typical.

Strategic Information

Spying and Bargaining

In contrast to market information, strategic information is valuable because sharing it makes one side better off at the expense of the other. Market information creates a two-sided gain: when it is shared, both sides make a profit.

In the case of strategic information there is a one-sided advantage that changes hands with the information; as a result, one side wants to get it and the other side wants to keep it secret. Strategic information is valuable in wars, races, blackmail, and bargaining. Examples include military plans and deployments; technological secrets such as the recipe for Coca-Cola or how to make the atomic bomb; information that can damage reputation like love letters or evidence of the use of slave labor; and financial information that a labor union can exploit to undermine the negotiating position of an employer. The Soviet Union concealed the true level of military outlays, for example, in the years from 1930 to 1933 because the truth would have undermined its negotiating position at the Geneva disarmament talks (Davies 1993). The pretence continued in 1934 and 1935 because, although the original motivation had disappeared, to close the gap between truth and reality too quickly would reveal the lie and undermine the future credibility of all such Soviet claims (Davies and Harrison 1997).

Strategic information could be traded in two distinct contexts, one obvious, the other less so. The obvious one is espionage. In terms of Figure 9.3, the outsider is a foreign power or their intermediary who is willing to reward agent 2 in return for information about the principal's capabilities or intentions; from the point of view of the principal, agent 2 knows "too much." What is worse, agent 2 can share this information without any overt sign of disobedience, since nothing is physically lost from the principal's advance or what the agent does with it.

Here official secrecy is not only the obvious solution but the only solution. Again it helps the principal through threat and discounting effects. The discounting effect lowers the credibility of the information that the agent has to offer. For example, most observers regarded Soviet budgetary series for military spending from the mid-1960s through to the end of the 1980s as a blatant lie, and a number of alternative estimates were prepared including some that relied on intelligence sources, but since the truth could never be verified and the alternative estimates were often wildly divergent the result was to cast doubt on all figures, including those based on intelligence that could easily be interpreted as disinformation or deliberate lies designed to mislead (Harrison 2003).

The discounting effect could not solve the problem on its own, however, for two reasons. A secret was likely to retain some value even when it could not be verified. More worryingly, the very fact that information was made secret could give it a cachet of strategic value. We could think of this as establishing a rationale for the principal to do some fairly obvious things. One was to impose secrecy indiscriminately and classify a lot of non-strategic or trivial information as well, to mask the few bits of information that really mattered, while claiming in public that "there are no such things as trifles." Another was to engage in the spreading of lies, or disinformation; both actions would damage the market for second-hand information that was true and valuable.⁵ Secrecy and lies would

⁵ The market for information is damaged in a similar way as Akerlof (1970) shows the offer of "lemons" (low-quality used cars) to damage the market for second-hand automobiles. See chapter 8, note 2. There are some differences between second-hand automobiles and strategic information, of course. One

damage the market by driving down the customer's willingness to pay for information that had not been and probably could not be verified, but as long as there was some market value to a secret these stratagems alone would not prevent the trade altogether. It was important, therefore, to create legal penalties as an additional barrier to entry. Thus, the risk of punishment remained essential to the enforcement of secrecy.

There is another way in which strategic information could be valuable, less obvious than espionage but probably much more commonplace. Now suppose, in terms of Figure 9.3, that the outsider is the *authorized* customer of agent 2. In terms of the subject matter of Chapter 6, we could think of the principal and his agents as Industry, with the Army as the outsider. The Army and Industry had an adversarial relationship in so far as Industry wished to extract the Army's budget for the procurement of weapons with as little effort as possible. Industry could shift the ratio of effort to rubles to its own advantage by pushing up the prices of its products relative to their quality and the effort embodied in them. In principle weapons were priced on the basis of unit variable costs plus a mark-up to cover capital charges. Costs reflected both the quality of materials and the amount of labor effort used in production. In this context, production costs became strategic information, and official secrecy promoted the cheating of the buyer through covering up cost inflation and price gouging.

More generally, we find self-interested agents throughout Industry exploiting the cloak of secrecy to deny strategic information to a variety of outsiders including the Army and the party; the latter, representing the encompassing interests of the dictator, usually sided with the Army

Industry and The Army

The defense industry provides a number of cases where managers and officials exploited secrecy in their own self-interest. Industrial managers enthusiastically classified cost statistics as important military secrets so as to withhold them from the defense ministry's purchasing agents. The Army was deprived of verifiable information about costs while Industry was freed from adherence to cost-plus pricing rules for defense products, or won time to inflate costs so as to justify the price set.

We have several examples from the 1930s. A KPK audit commission report of September 1935 slated defense enterprises for excluding military agents from information about production costs and exploiting secrecy to engage in wholesale "deception"; similar behavior caught the attention of the finance minister two years later (Harrison and Simonov 2000: 235). Let's be clear, in case the reader finds it too bizarre: the position of Industry was that the Army's representatives could not be allowed to know the production costs of the weapons they were buying on the grounds that this information was an important military secret.

difference is that information may be copied and shared relatively freely in contrast to automobiles, which have to be produced using capital, labor, and materials. The main cost of trading strategic information was fear of the consequences of being found out.

What is more, in the context of its time and place this apparently absurd stratagem continued to be effective. In 1938 the defense ministry succeeded in getting the ministry for the defense industry to agree that its factories would disclose pricing calculations to the military agents. Locally, however, this agreement was subject to widespread sabotage on the side of the factories. In a letter of March 29, 1938, to defense industry minister Kaganovich, officials of the Red Army artillery administration reported that “the obstacles to normal calculation and the proper estimation of actual costs of artillery administration orders” had not been overcome. They complained that:

despite frequent appeals to the planning and finance administrations of the defense industry ministry nothing has been put into effect up to now. The finance administration of the defense industry has not implemented the direct instruction of your deputy B. L. Vannikov to provide the artillery administration with the calculations. Locally the practice is continuing of the factories’ holding back the calculation work of the military agents. Just in the last few days the military agent at factory no. 12 has informed us that the factory is refusing to supply calculations ex post, referring to your decree no. 54 of February 9 this year. Such a refusal is a direct violation of the government decision no. 108ss of September 3, 1937, by which the defense ministry is entitled to receive annual calculations ex post.

It was necessary, they continued:

to make arrangements to regularize mutual relations with the artillery administration in the sense of providing it with full opportunity to do calculation work and in all cases to obligate factories to provide the artillery administration with calculations ex post for orders covering 1937 in fulfillment of the government’s decision. All this is especially necessary taking into account that the defense industry ministry and defense ministry will shortly be working together to set prices for 1938. Correct decisions will only be reached under conditions of the artillery administration’s most detailed familiarization with the production costs of the goods to be ordered and joint business preparation.⁶

In other words, the Army’s agents needed to know about Industry’s costs in order to carry out their statutory responsibilities, while Industry was able to keep this information back by means of nothing more complicated than simple footdragging.

The military agents encountered similar problems in attempting to carry out their obligation “to oversee the condition of mobilization planning”; the following account is based on work by Markevich and Harrison (2004). In 1937 the government Defense Committee issued a special resolution that included a stipulation of military agents’ right of access to enterprise mobilization plans. The

⁶ RGAE, 7515/1/403: 303 (March 29, 1938).

defense industry ministry, however, “forgot” to include this in the decree that it issued to implement the Defense Committee resolution. The decree limited the prerogatives of military agents to “the right to participate in working out and auditing the provisioning . . . of enterprises, the right to check the factual correspondence of technological processes with working drawings and technical specifications, and the provision of technology with equipment . . . and so forth.” Enterprises then cited the decree in refusing the military agents’ access to mobilization planning.

The Red Army artillery administration appealed to the defense industry ministry on this issue three times: in February, March, and April 1938. The defense industry ministry based its refusal on the need to ensure the secrecy of mobilization assignments; in August, however, it agreed grudgingly to open up enterprise mobilization planning to the military agents subject to a rigmarole of special procedures and permissions.

The underlying situation was that the defense industry ministry was exploiting secrecy to cover up the lamentable state of mobilization planning at the enterprise level. Thus, on receiving the April 1938 demand from the Red Army artillery administration to give their military agents the right to see the defense factories’ mobilization plans, a ministry official, evidently the minister or one of his deputies, wrote on the letter: “*After approval of the mobilization plans*” (emphasis added).

As in production, so in research and development, military designers were able to exploit secrecy to keep their ideas to themselves. In 1938, for example, specialists from a naval research institute in Leningrad wanted to evaluate the work that the designer Vladimir Uvarov was doing on gas turbines in Moscow (for an overview of this work and its military and economic significance, see Chapter 8). They wrote to the defense industry ministry complaining of obstruction: Uvarov would not let them into his bureau. His obstruction, they suggested, was motivated by personal animosity “and in addition ostensibly special instructions about the secrecy of the work.” On the side of Industry, however, the ministry officials stood up for their “own” designer and refused curtly to intervene.⁷

The defense industry also tried to keep the plan and budget authorities continually starved of information about its activities on the grounds that they constituted important military secrets. The central government took repeated steps to counter this tendency and enforce the supply of information. A Politburo resolution of January 1932, for example, required that defense industry production *should* be included in the calculated totals for industry as a whole. In January 1935 deputy minister for heavy industry Piatakov proposed to prime minister Molotov that defense industry should no longer have to report its progress to the finance ministry or Gosplan’s statistical administration on grounds of national security. In March, following a counter-claim from the statistical office, the government made limited concessions to Piatakov but still required defense industry to report both real outcomes and ruble aggregates to Gosplan in Moscow,

⁷ RGAE, 8328/1/995, 5-6 (May 3 and 15, 1938).

real outcomes for civilian products only to local statistical agencies, and ruble aggregates to the ministry of finance (Simonov 1996: 1362, 1364n; Markevich 2000).

Industry, the Party, and “Public” Opinion

Above both Army and Industry stood the dictator Stalin, who used his party to enforce his interests. In this context it was Industry, not the Army, that was behaving badly and needed to be brought under control. In Chapter 4 Andrei Markevich quoted the opinion of Gosplan chief Mezhlauk in July 1933 that secrecy explained the “backwardness of defense industry in methods of work, standards of consumption of materials, cutting costs, and so forth” because secrecy freed the industry from press criticism. In fact this problem emerged simultaneously with the creation of the command system. In March 1930, less than one year after adoption of the first five-year plan, defense minister Voroshilov wrote: “In its most recent two decrees on defense industry (no. 3 of July 15, 1929 and no. 3 of February 25, 1930) the Politburo has indicated the excessive reclassification (*zasekrechivanie*) of production at military and aviation factories as secret, in consequence of which non-party and party activists have been effectively excluded from taking part in the organization and rationalization of production.” He called on the government audit commission to follow the matter up urgently so as to put a stop to excessive secrecy “under the sign of which bunglers and others skilled in bad work conceal their ‘artwork’.”⁸

At a lower level of the apparatus the idea that managers and workers could collude to exploit secrecy in an opportunistic way also occurred to Andrei Zhdanov in Leningrad. During 1936 the latter met several times with party activists from the local defense factories to discuss plan discipline. He linked poor performance in the tank industry “with the fact that the factories prefer to pursue their own interests . . . considering that civilian production may be reported in the press, but they’ll get around to military production sometime later.”⁹ At a subsequent meeting he remarked acidly of failures in the artillery program: “Our misfortune is that we can’t drag you outside; if they wrote about these customs in the press the public opinion of our country would eat you alive, to put it mildly . . . We can’t do this unfortunately and we appeal to your [sense of] party duty.” A few minutes later Zhdanov noted that public opinion can reward as well as punish. “It’s easy,” he remarked, “to get a medal for civilian production and make a stir in the papers, that is, it’s easy to be good. But in the military industry, since there’s no public regulation (*obshchestvennogo kontroliia net*) and they publish nothing in the papers, this is a business that can be shelved indefinitely.”¹⁰

⁸ Hoover/RGASPI, 85/27/86: 1-2 (March 3, 1930).

⁹ Hoover/RGASPI, 77/1/826: 12 (March 23, 1936).

¹⁰ Hoover/RGASPI, 77/1/826: 19-20 (May 5, 1936).

Later that year, Zhdanov again commented on the inferior fulfilment of plans for the defense industry compared with those of the civilian economy, despite the former's supposedly higher priority. Once more he ascribed this to secrecy: "They never notice you in the press on account of secrecy, do they? And this contributes to a certain degree of freedom from accountability (*beskontrol'nost'*) and this demands an effective way of working that compensates for the absence of public criticism with robust and very effective organization from below."¹¹

Before we leave Zhdanov it is worth considering what he tells us about the role of the press and "public" opinion in the Stalinist system of power. The press was controlled by the party, and public opinion was no more than the opinion of the party expressed in public; what could the party media do in public to discipline industry that the party itself could not achieve in private? Zhdanov looked to the press, evidently, to deliver public abuse and humiliation in return for failure, and social honor in return for success, and he saw this as a uniquely powerful mechanism for aligning private incentives with the interests of the party. Secrecy neutralized this mechanism, however, leaving only appeals to sense of duty backed up by vague threats.

Possibly, this tells us as much about Zhdanov's intellectual formation as it tells us about the empirical behavior of Soviet defense industry managers. It is of interest, therefore, to find his interpretation, and that of Voroshilov, fully confirmed by evidence from other sources a full half century later. Citing press reports from the spring of 1988, the time of Gorbachev and perestroika, Julian Cooper (1990: 188) remarked, "Critics of poor-quality civilian goods manufactures at defense-industry enterprises now openly express their frustration at the way in which secrecy is used to obstruct the investigation and exposure of shortcomings. One author, discussing the fire hazard presented by low-quality televisions, notes that some of the producers "have hidden themselves in zones literally closed to criticism. State 'secrets' are invoked. Even people's control . . . has difficulty breaking through into the 'boxes'." Another author, in a remarkably outspoken article entitled "On 'boxes', open secrets, and departmental interests," berates the aviation industry for its use of secrecy to protect its own interests and shows the absurdity of some of the security measures adopted." (In this quotation "people's control" refers to the state and party auditors, and the "boxes" are the mailbox numbers that continued to conceal the locations of the secret defense factories.)

We have looked at the secretiveness of the Soviet state from various angles, using the defense industry as an example. We have tried to explain blanket secrecy, elaborate internal firewalls, fierce punishments, and a curious mix of laxity and negligence in some respects combined with overzealousness in others. We have made only a first pass at the subject, and much more is still to be learnt. A comparison with secrecy in purely civilian branches of the economy could perhaps throw even more light on this murky topic.

¹¹ Hoover/RGASPI, 77/1/826: 28 (December 23, 1936).

It seems clear, nonetheless, that secrecy had more than one dimension. As regards the secrecy of market information the interests of principal and agent were generally opposed: the principal used secrecy to limit the agent's options, whereas the agent was indifferent to secrecy or preferred openness. In the case of strategic information the principal used secrecy to limit an outsider's options, and this created a motivation for the agent to sell it without authority. Such cases encouraged blanket secrecy combined with powerful threats to induce the agent to stick to the rules of secrecy. This may help explain the severity of punishments for violating Soviet state secrets, which continued long after Stalin's death.

There was another dimension to secrecy, and this contributed to the sturdiness of the many firewalls that prevented information from spreading from one bureaucracy to another. It involved situations where the agent could exploit secrecy to conceal strategic information and so extract something from an authorized outsider. For example, Industry's agents, the managers of defense plants, exploited secrecy to conceal and exaggerate their true costs and extract a surplus from the Army. In such cases the Army could object and the party could disapprove, but their right to know was fatally weakened because the agent's superiors were unwilling to enforce it, colluded with the concealment in practice, and can be thought of as having gained from it.

This proposition is supported by the evidence. In the cases that have come to light where the agent used secrecy in this opportunistic way it was never the principal that blew the whistle. Some outside agency always exposed the facts: usually the customer, the planner, the auditor, or, in later years the press. It is easy to work out why. As long as the agent exploited secrecy at someone else's expense, her principal did not object. The cloak of secrecy enabled the agent, as seller, to extract something from an outsider, keep some of it as reduced effort, and pass the rest upward to her boss as a show of increased compliance with plans and contracts for fewer resources used. In return, the boss defended his agent. Vertical loyalty was thus a two-way street.

The 64,000,000 ruble question remains: why, exactly, was the Soviet state of the twentieth century so excessively secretive, so much more extremely secretive than its Russian predecessor, or its successor, or the states of most competing market economies? This chapter has shown that we do not need to attribute the excesses and extremes to individual folly or miscalculation. The behavior of the great Stalin and all the little Stalins under him is largely understandable in terms of the rational principle:

I am entitled to privacy,
You are defensive,
He or she is secretive.

What was different about Soviet bureaucrats, and what made their secretiveness take on such fantastical forms and dimensions, was the lack of limits that would have been imposed on their behavior by political or market competition. They monopolized both political and economic power. This deprived them of the incentives that drive others to limit secrecy and prefer varying degrees of openness.

Rivalry, whether competition between firms for market shares, or rivalry among the political parties contending for government, limits secrecy for two reasons. First, when information is valuable the ability of competing rivals to create incentives for disclosure is correspondingly large, so that important secrets are quickly spilled into the public arena; also, political and business leaders have difficulty in then imposing large penalties on their own employees or agents for disclosing secrets because public opinion will punish *them* if they do. Second, those who allow the costs of upholding a regime of secrecy to get out of hand will suffer a competitive disadvantage because of their higher costs, and this is likely to end in driving them from the market; self-interest makes them ready to limit the uses of secrecy. These limits to secrecy form, in turn, one of the most important advantages of a society based on economic and political competition.

Figure 9.1. *The Rise and Decline of Soviet Secrecy, 1917 to 1956*

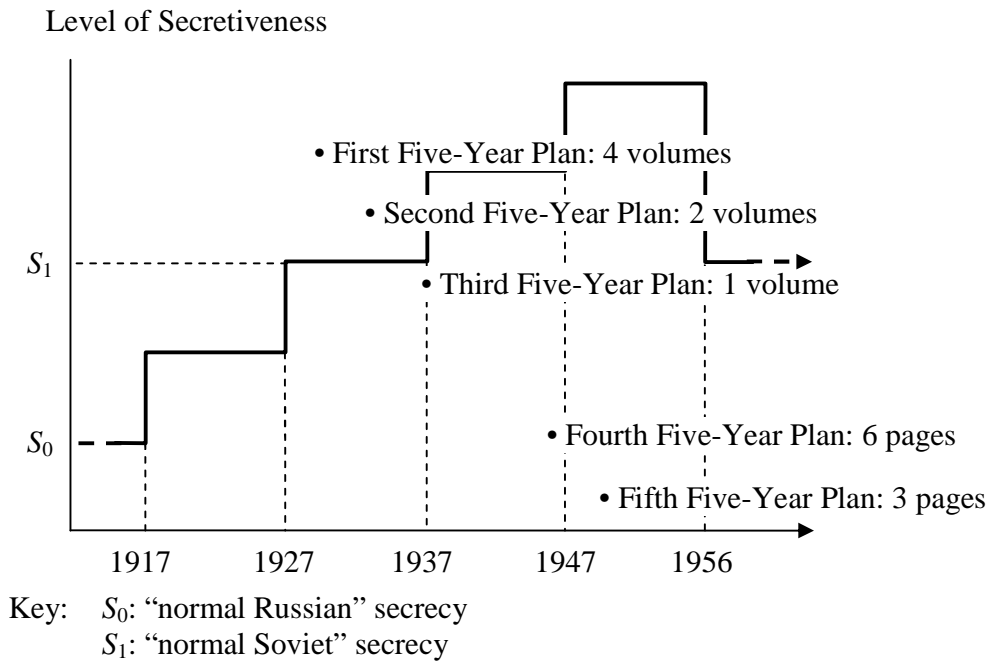
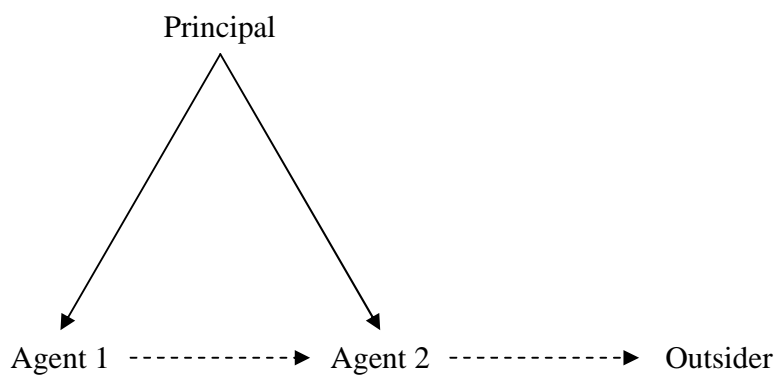


Figure 9.2. Dilbert on the Value of Information

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Figure 9.3. Principal, Agents, and an Outsider



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