Secrecy, Fear, and Transaction Costs: The Business of Soviet Forced Labour in the Early Cold War*

Mark Harrison

Abstract

What does it cost to do business under a dictator? In 1949 the Soviet state had entered its most secretive phase. One of the Gulag's most important secrets was the location of its labour camps. As this secret was guarded more closely, camps found it increasingly difficult to do business without disclosing a state secret: their own location. For months and then years Gulag officials worked around this dilemma, expending considerable efforts. Rather than resolve it, they eventually normalised it. This study of the transaction costs of an autocratic regime raises basic questions about how Soviet secrecy was calibrated.

Affiliations

Professor of Economics and research associate of the Centre on Competitive Advantage in the Global Economy, University of Warwick; research fellow of the Centre for Russian and East European Studies, University of Birmingham, and of Hoover Institution on War, Revolution, and Peace, Stanford University.

Contacts

Mail: Department of Economics, University of Warwick, Coventry CV4 7AL, United Kingdom.

Phone: +44 24 7652 3030. Email: mark.harrison@warwick.ac.uk.

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We had to write an essay on 'the economic level of security.' Total security led to paralysis, for only if no one said or did anything could nothing be given away. Too little security led to disaster. Where was the golden mean? It was as good, or as pointless, a subject for debate as the medieval argument about how many angels could sit on the head of a pin (Frankland 1999, p. 83; the assignment was part of his training for the British Secret Intelligence Service in 1958).

A colleague of mine used to quip 'Got an access denied? Good, the security is working.' That means that security administration is fundamentally opposed to network administration – they are, in fact, conflicting goals ... Essentially, the tradeoff is between security and usability. The most secure system is one that is disconnected and locked into a safe (Johansson 2004).

When it comes to the costs of doing business, it would seem that an autocrat has many advantages. Leaders that do not have to account for their decisions may do without due process; in the absence of procedural checks, they rule by fiat. Democratic leaders, in contrast, must uphold the constitution that gives them legitimacy, respect checks and balances, build coalitions of voters and factions, listen to lobbies, consult before they decide, and so share ownership of their decisions. Or, if they do not, they are likely to pay a price in the eventual loss of reputation and office.

Such considerations make democratic business costly to transact. The costs are usually visible and sometimes prohibitive. Wintrobe (2000, pp. 247-279), for example, identifies democracy's DNZ ('do nothing zone') where bargaining can fail because the costs and risks of negotiated agreement are too high. As a result nothing is done; social, budgetary, and environmental imbalances accumulate while decisions are postponed.

This paper is about the other side of the coin. There are also transaction costs under dictatorship. But we do not see these costs because a dictator does business in secret. Secrecy appears to promote authoritarian rule in many ways. Most obviously, information is power; secrecy frees the ruler from public accountability and so preserves his freedom of action (Weber 1946, pp. 233-234). A regime of secrecy also hinders horizontal communication among the ruler's subordinates and makes it harder for them to lobby him or collude against him (Harrison 2005, 2008); it tests their loyalty and provides a convenient screen to prevent the promotion of the disloyal (Grybkauskas 2007). But the ruler pays a price for these benefits, because secretive rule is costly. While these benefits are varied in form and intrinsically hard to measure, a study of the costs of secrecy can set a lower limit on the benefits expected by those who put it in place.

Just as the payoffs to secrecy come in many forms, so do the costs of secrecy. A full accounting for the costs of secrecy goes beyond the scope of this paper, which focuses on transaction costs, or the costs of doing business. When people transact business with each other, how much does it cost to carry through the transaction? Some kinds of business are almost costless. You can step off the street into commercial premises and emerge with a magazine in two minutes for little more than the effort of smiling at the seller and finding the right change; some people don't even bother to smile. To buy an annuity, in contrast, requires lengthy investigation and mutual exchange of information; the buyer must obtain assurance of the seller's credit while the seller must obtain the right price for the buyer's expected longevity. The transaction costs arise through both procedural and behavioural channels. Regulatory compliance looms large in procedural costs: the seller must be able to prove to the regulator that the annuity was not missold. In addition, each side must establish the good faith of the other: the buyer is not concealing a terminal illness and the seller is not a thief. A sudden fall in the reputed solvency of bankers, for example, can devastate the market for financial assets by spreading fear and distrust.

In this paper I consider the transaction costs of secrecy that arose through a behavioural channel. I use narrative evidence to show that an increase in the level of secrecy caused Soviet officials to change their behaviour in ways that made government business more costly to transact. Another paper (Harrison 2012) describes the procedural channel, estimates the direct burden of secrecy on a small regional bureaucracy of the Soviet state, and finds that it was surprisingly large.

The narrative at the core of this paper is constructed from the records of the Gulag, the forced labour administration of the Soviet state, not long after World War II. The scale, scope, and organisation of forced labour have been an important focus of research in formerly secret Russian archives since the collapse of the Soviet Union. Significant histories and documentary collections on Soviet forced labour are now available, written in English and Russian from various disciplinary perspectives (Alexopoulos forthcoming; Applebaum 2003; Bacon 1994; Barnes 2011; Gregory & Lazarev 2003; Khlevnyuk 2004; Kozlov 2004/05). This paper is the first to focus specifically on secrecy in the administration of forced labour.

In the first section of this paper I examine the secret identification and location of camps in the context of the overall regime of Soviet secrecy. In the second section I introduce the transaction-cost aspect of secrecy. In the third section I narrate the central story of this paper, which transpired in 1949 and is told here for the first time. The fourth section discusses the transaction costs of Soviet administration found in the evidence, and shows how they were related to secrecy. A final section concludes. Having established a relationship between secrecy and transaction costs, what have we learned? Economic analysis suggests that, when higher costs are incurred willingly, this is done to get some equal or greater expected benefit. When we observe the historical costs of secrecy, therefore, we begin to set a lower bound on the benefits of secrecy that were anticipated, correctly or incorrectly, by those that enacted it.

Forced labour and secrecy

Stalin died on March 5, 1953. On March 28, on the initiative of its first deputy chairman and interior minister Lavrentii Beriya, the USSR Council of Ministers ordered the Ministry of the Interior to transfer most forced labour camps and colonies to the Ministry of Justice (Gorlizki and Khlevnyuk 2004, p. 132). Within a few weeks, hundreds of establishments and millions of lives had changed hands.

For this changeover to take place, Justice Ministry officials had to receive some sort of account of the assets for which they would become responsible. Of many questions they might have had about these camps and colonies, the most obvious were: Where are they? What are they called? In Moscow the secretariat of Gulag (the interior ministry chief administration of labour camps) compiled lists and maps. Roughly speaking, there was one list and one map for each of the 150 or so provinces and republics of the Soviet Union at the time. Every map was drawn in pen and pencil by an anonymous hand. Roads, railways, rivers, and coasts were traced. Installations were symbolised and place names were artfully lettered.¹

The inference is unmistakable: the Gulag had no printed maps. Why not? It is true that the Soviet Union was a poor country, and maps that were accurate enough to be useful were costly to produce and reproduce. Were they too costly? This was surely not the case.

Russia had a long tradition of print cartography. According to the website of the Russian National Library, map-printing 'began and came of age' in Russia already in the eighteenth century.² In Russian history, when maps were needed, they were produced. Alexander I created the Imperial Army corps of topographers in 1812. In 1914 the Russian Army entered World War I with a stock of 30 million printed maps of the border districts of the Empire and its neighbours. In 1941 the Red Army's early defeats cost it a stockpile of 100 million maps (Losev & Kazakov 1992). By this time, fortunately, Red Army formations had 'embedded' topographical units fully equipped with mobile map stores and printing facilities. After the chaos of 1941, despite the fact that much of the war was fought over vast interior spaces of the country that prewar thinking had considered invulnerable, each major operation saw the printing of many millions of maps of various scales and their distribution to the troops, including specialised maps for different branches of the armed forces (Voronkov & Zakuvaev 1982).

In short, Stalin's bureaucracy was certainly capable of supplying printed maps when required. If the Gulag had no printed maps, it is because the production and distribution of printed maps could only have widened the circle of people with access to the identity and location of camps. Printed maps were not wanted because the information they would have carried was among the top state secrets of the Soviet era.

How did this come to be so? The existence of forced labour was not, initially, a Soviet secret. As of 1927, for example, a comprehensive list of state secrets did not include labour camps (Bone 1999, pp. 81-83). It did classify as 'secret,' under 'matters of a military nature,' 'The dislocation *in toto* of every category of institution and establishment (for example, ... all institutions of higher learning ..., all warehouses, etc.).' According to these rules a comprehensive list of labour camps would have been classified a military secret, but labour camps were not singled out for this, and it was not forbidden to reveal the location of any one forced labour facility in particular.

¹ The Archives of the Soviet Communist Party and Soviet State Microfilm Collection at the Hoover Institution, Records of the State Archive of the Russian Federation (Moscow) (hereafter Hoover/GARF), fond R-9414, op. 1, dela 119 to 205 contain these documents (also catalogued in Kozlov 2005, vol. 6, p. 94). Some are dated before 1953, suggesting preparation prior to Stalin's death; Beriya is known to have planned a fundamental reform of the Gulag but was prevented while Stalin lived (Tikhonov 2003).

² See 'Russian Maps and Atlases in the National Library of Russia' at http://www.nlr.ru/eng/coll/maps/rus_map.html (accessed September 30, 2010).

In fact, in the early 1930s the Soviet media published various accounts of life behind the wire. The writer Maksim Gor'kii, for example, contributed stories about rehabilitation by forced labour in camps of the far northern Solovetskii islands, the Moscow suburb of Lyubertsy, and the White Sea canal project (cited respectively by Davies 1996, p. 36, and Applebaum 2003, pp. 59-62, and 80-82). At this time, therefore, the existence of particular labour camps was not secret, although the conditions under which they operated were heavily sanitised.

Already, however, the fact that something was not listed as secret did not mean that just anyone could freely know it or repeat it. The statistics of forced labour were secret *de facto* at this time, as well as the laws governing its use (Davies 1989, p. 35). In the depth of the Great Depression, moreover, there was an international outcry against the Soviet export of commodities produced by forced labour (Davies 1989, p. 395; Applebaum 2003, pp. 74-76). A selfreinforcing cycle of simultaneous causation ran from Soviet secrecy on this sensitive matter to anti-Soviet sentiment in the world outside and back again.

After the depression the campaign against Soviet exports died away, but the Gulag was increasingly hidden. Official propaganda of the benefits of 'corrective labour' ceased. The works that were previously published were banned, and many of their authors were arrested. Concealment was complete by 1937 (Applebaum 2003, p. 110). There were no more accounts of life behind the wire until 1962, when Alexander Solzhenitsyn was allowed to publish his fictional account of *One Day in the Life of Ivan Denisovich*, set in an unnamed Siberian labour camp. This window into Soviet reality was soon closed again, and the full facts were held back for a further thirty years. Until the 1990s, ample scope remained for speculation and error.³

The Soviet Union was already one of the most secretive states in the world before World War II broke out. At the war's end, there were widespread hopes that victory would be rewarded by relaxation and a more open or even 'normal' political and cultural atmosphere. These hopes were soon dashed (Hough 1985; Zubkova 1998). The fog of secrecy became even more impenetrable on June 9, 1947 with a Supreme Soviet decree 'On responsibility for the disclosure of state secrets and for the loss of documents containing state secrets.' Its occasion was the 'KR' affair – a scandal whipped up around a Soviet husband-and-wife team of biological scientists, Nina Klyueva and Grigorii Roskin, who had shared preliminary results of their research on an anti-cancer agent with American specialists (Esakov and Levina 1994; Krementsov 2007). Klyueva and Roskin were accused of violating secrecy and betraying the interests of the Soviet state to American intelligence for the sake of 'personal fame.' In the second half of 1947, hundreds of closed meetings were held in party organisations and government ministries to condemn them.⁴ But they were not charged with spying or arrested, a sign of how times had changed since 1937.

⁴ As a result, ironically, information of the affair leaked abroad. A recently declassified document from British-American shared signals intelligence in 1947 reproduces intercepted correspondence on the 'KR' affair among Komsomol officials in Moscow and Frunze, Uzbekistan. The National Archives (London),

³ Bacon (1994) surveys the pre-1991 literature. The most reliable clues were contained in secret sections of the Soviet national economic plan for 1941, seized by German forces during World War II and later published in the United States. The 1941 plan was exploited by Jasny (1951) for an evaluation that turned out remarkably close to the figures revealed in the 1990s.

The 1947 law was aimed at offenses that fell short of espionage or treason, for which the most severe penalties were already available.⁵ Discussing the new law in a draft for Pravda (published on September 27, 1947), the USSR State Prosecutor Konstantin Gorshenin pointedly began with some exemplary cases in which offenders were sentenced to four or more years of forced labour, not because they were traitors, but because they lost secret documents through negligence. In this postwar narrative there were spies, but these were foreign rather than home grown. Foreign intelligence agencies, Gorshenin suggested, were predators in search of a 'habitat' with 'willing or unwilling prey.' He claimed that they found their victims especially among those citizens 'in whose consciousness such relics of the past as a self-centred attitude to social causes, non-ideological, narrow-minded interests, an egotistical drive towards cheap personal fame, adulatory self-abasement before bourgeois culture, and so forth, are still strong.' Also open to foreign manipulation were 'those who, out of their own generosity, trust everyone and anyone, and fail to reckon the cost of their generosity to the interests of the state.' Only vigilance could frustrate the imperialists' designs, seen in this light.6

The implementation of the law of June 9, 1947, provided the exogenous shock to the secrecy regime that yields our data. As a result of the new law, security was tightened further throughout the Soviet bureaucracy. The law prohibited disclosure of a long list of matters, ending with 'other information that will be recognised by the USSR Council of Ministers as not subject to disclosure.' The Council of Ministers followed this up on March 1, 1948, with new lists of classified information and new instructions for all aspects of handling information of all kinds and all degrees of secrecy.⁷

The instructions ran to 47 printed pages. Their spirit was to add a rule to cover every past violation.⁸ The document covered all levels of classification but was itself classified 'top secret'; this meant that those cleared for access to documents that were merely 'secret' could not read about their new obligations. Among government officials it was a particular fear that matters such as plan figures, released a few months previously and already in the public domain,

UKUSA Agreement Files, S/ARU-E/T54, 'Party Action on the Anti-State Activities of Two Soviet Professors' (Codeword - Glint), September 25, 1947, HW 75/167.

⁵ Thus the downfall of Nikolai Voznesenskii, the wartime economic chief and once Stalin's favourite, was triggered in March 1949 by a scandal over the negligent loss of secret papers in Gosplan, but his subsequent execution in August was for treason and undermining the economy under the RSFSR Criminal Code, Article 58 (Gorlizki and Khlevnyuk 2004, pp. 83-89).

⁶ Hoover/GARF, fond R-9492, op. 1a, delo 513, ll. 8-18 ('Soobshchenie prokuratora Soyuza SSR').

⁷ Hoover/GARF, fond R-9492, op. 2, delo 79, ll 2-26 ('Instruktsiya po obespecheniyu sokhraneniya Gosudarstvennoi tainy v uchrezhdeniyakh i na predpriyatiyakh SSSR,' Moscow, 1948).

⁸ Thus typists were instructed not to discuss the content of secret documents with others, to consult only their seniors or the author of the document about illegible words, not to take dictation where they could be overheard, and to hand all waste paper to their seniors for destruction. Hoover/GARF, fond R-9492, op. 2, delo 79, l. 19ob.

might now be considered secret, making it an offence under the law to repeat them in public (Gorlizki 2002, pp. 722-723).

The change in the law had implications for every part of the Soviet bureaucracy. The leaders of the Gulag followed through within a few days by issuing a new list that itemised the Gulag's secrets. First on the list was: 'The location of corrective-labour and verification-filtration camps, colonies, deportation prisons, and other Gulag subsections.'⁹

Transaction costs and secrecy

The repercussions of the 'KR' affair are consistent with the use of secrecy as an instrument that raises the costs of unauthorised transactions (Harrison 2005, 2008a). How does it work? Information is valuable both in itself and when it is shared to facilitate value-adding exchange. Controlling information is therefore one way of regulating exchange.

Regulated exchange was fundamental to the working of the Soviet planned economy. *Exchange* was fundamental because parallel ministerial hierarchies, unified at the top in the Politburo and Council of Ministers, were specialised at lower levels by facility, function, technology, and territory. In order to function at the lower levels, the managers of specialised facilities had to trade resources with other ministries, with households and cooperatives, and, through state intermediaries, with foreign corporations and agencies. *Regulation* of exchange from above was also fundamental: it was designed to ensure that agents at lower levels undertook only authorised ('planned') trade. This was necessary because lower level agents faced many potential exchanges that would be privately profitable at the cost of diverting resources from plan objectives. Legally enforceable plans were designed to rule these out.

Every diversion of resources from planned uses to unauthorised sideline trading represented a risk of loss to the state.¹⁰ This is what the 'KR' affair meant

¹⁰ 'Risk of loss,' rather than certain loss, because even loyal managers frequently had to trade on the side, without authorisation, in order to fulfil the plan. It was intrinsically difficult for the authorities to draw a line between the unauthorised exchanges that were plan-oriented (or loyal) and those that were

⁹ Hoover/GARF, fond R-9414, op. 1, delo 335, ll. 11-12 ('List of questions of the work of the GULAG of the USSR MVD and its peripheral organs that are state secrets (gosudarstvennaya taina),' signed by acting Gulag chief Dobrynin, June 17, 1947). Applebaum (2003, p. 110) notes that 'subsection' was an internal codeword for a labour camp. On December 10, 1951, USSR interior minister Kruglov issued a similar 'List of questions of special importance (osoboi vazhnosti) about the GULAG of the USSR MVD, correspondence about which should be classified 'top secret (special file)' (Sovershenno sekretno (osobaya papka))' (Hoover/GARF, fond R-9414, op. 1, delo 335, ll. 71-72). Items 2 and 3 were 'The location and information about numbers of the Gulag contingents engaged in the construction of especially important closed special construction projects of Glavpromstroi' (a reference to the newly founded Soviet atomic weapons industry) and 'Summative information on the location of corrective labour camps and colonies and transit prisons of the USSR MVD.' Item no. 1 was 'Summative information on the overall number of the contingent of prisoners maintained in all MVD camps (including special camps) and colonies, their physical condition and labour utilisation'; this was the second item in the 1947 list.

to Stalin, and it is why he reacted to it so sharply. Secrecy was then a means of reducing such losses by raising the expected costs that subordinates would face if they exchanged information that was valuable directly or indirectly to potential partners on the side.

Each extra degree of secrecy created an important dilemma, or trade-off, for the Soviet authorities. This is because, while raising the costs of unauthorised transactions that fell outside the plan, additional secrecy also promised to raise transaction costs of the command system itself. This trade-off matters if we think of the dictator as aiming to maximise payoffs, net of transaction costs. By implication, the dictator had an interest in transacting business efficiently.

The Soviet command system incurred significant transaction costs. According to Hayek (1945), such costs must have exceeded those of a market economy, because markets share information more economically than a hierarchy. These costs were incurred in both the vertical and horizontal dimensions of hierarchy. In the vertical dimension, there were *decision costs*: the information and deliberation costs of making decisions in higher level committees and enforcing or adapting them in the face of indifference, criticism, self-interested resistance, or objective obstacles. In the horizontal dimension were *trade costs*: the resources consumed in order for agents at lower levels to assure each other and their higher-level controllers that the exchanges that they sought were consistent with higher level plans.

How then would secrecy cause these costs to vary? We consider three effects.

- A. Increased costs of unauthorised trade. Agreements for the sequential exchange of goods or services for money or other considerations depend on the parties knowing each other's identity, address, legal status, and what they have to share or sell. Secrecy laws limited Soviet citizens' access to unauthorised outside options by criminalising the provision of such information to outsiders and its acquisition by them, even where there was no guilty intention. The law of June 1947 equated the apparent naivety of the 'KR' affair with disloyalty. Other things being equal, agents faced with lower returns from sideline trading could be expected to switch effort and resources back into the state sector, and the dictator would gain by this effect.
- B. Increased costs of authorised trade. While pushing up the costs of unauthorised sideline trade, secrecy could also raise authorised trade costs within the state sector by criminalising information sharing and complicating verification among loyal agents who were just trying to follow instructions. This effect of secrecy on transaction costs is reflected in today's information systems literature on security versus usability (Johansson 2004). As the authors of a recent RAND study (Libicki et al. 2010, p. xii) point out, 'Classification imposes costs, and these are not just administrative. For one thing, it makes doing business within or among government agencies more difficult.' Resources would be consumed by these costs, and some authorised contracts would be so impeded that they would be left unfulfilled. The dictator would lose by this effect.
- C. *Increased decision costs.* Decision costs enter into the cost of transactions. New laws were generally accompanied by stringent enforcement campaigns based on exemplary punishment of offenders (Gorlizki 1999;

profit-oriented (and disloyal). Klyueva and Roskin, for example, persistently protested their loyalty. For further discussion, see Gregory and Harrison (2005).

Heinzen 2004; Harrison 2011a). It was to make an example that Klyueva and Roskin were pilloried in 1947, and Gorshenin's offenders were sentenced to the camps. The result was a state of fear, arising from uncertainty among government officials and managers about how to avoid punishment under the new regime. Managers and officials responded to such threats by avoiding decisions, for which they might be held responsible, as well as pooling risks and covering each other's backs (Gregory and Harrison 2005). Again, the dictator would lose by this effect.

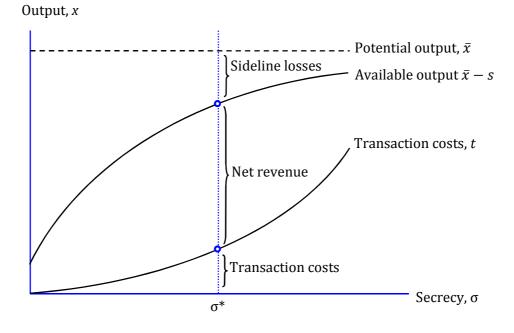
Where would the dictator stand in terms of net gain or loss? Suppose that managers and officials responded to additional secrecy by withdrawing effort from sideline activities (A); this would free that effort and make it available for the plan. Would the positive effect predominate, or would it be outweighed by the negative effects? Increased trade costs (B) and decision costs (C) in the official sector would eat a part of the gain; if they exceeded it, they would leave the dictator worse off.

. This discussion is easily formalised and turns out to resemble the general case of a security versus usability tradeoff. Consider an economy with potential output fixed at \bar{x} . Output is delivered to the dictator after deducting sideline losses s (from sharing and stealing for sideline trade), so available output is $\bar{x} - s$. Out of that the dictator pays transaction costs t, leaving a net revenue of $r \equiv \bar{x} - s - t$, and this is what he must maximise. This model does not impose any restrictions on the composition or final uses of 'output' in the dictator can have noneconomic aims. The model presupposes only that output is a means for the dictator to achieve his ultimate objectives, so that these are better achieved when the output at his disposal is larger.

The level of secrecy, continuously variable as σ , is one of the dictator's instruments. Suppose sideline losses are diminishing in secrecy, but at a diminishing rate, while transaction costs (or trade and decision costs) are increasing in secrecy at an increasing rate.¹¹ In Figure 1, the upper horizontal line is potential output, which is fixed. The output above the $\bar{x} - s$ curve is diverted into sideline losses and that below the *t* curve is lost in transaction costs.

The vertical gap between the two curves is the amount of output that is available to the dictator. At the vertical axis, to the left, government is completely transparent. Transactions are costless, but the dictator loses nearly everything to sideline trading. As we move to the right, the regime of secrecy becomes gradually tighter. Sideline trading is rapidly deterred. But the same secrecy that inhibits sideline transactions also throws sand into the bearings of the official economy, where trade and decision costs rise. 'Security' is improved at the expense of 'usability.' To the right of a certain point, shown here as σ^* , the dictator loses more from more costly transactions than he gains from tighter security.

¹¹ Formally, $s'(\sigma) < 0$, $s''(\sigma) < 0$; $t'(\sigma) > 0$, $t''(\sigma) > 0$. Then, the dictator's revenue is maximised where s' = t'.



In other words, secrecy can be too weak (to the left), and too extreme (to the right). A point exists in between at σ^* where the curves are parallel, the gap between them is at its widest, and secrecy is optimised.

Our evidence on this comes from a case study of a single episode in the history of a particular bureaucracy, the Soviet forced labour administration, in 1949/50. It provides the first historical evidence of how a change in official secrecy changed transaction costs in any country.¹² As a case study it stands on its own, at least for the time being. Its value is limited but still definite. While it does not have the statistical significance of a large body of data, it supports a narrative that clearly identifies causation – something that often eludes statistical studies.

Our case study does not let us observe the optimum; in fact, we will not be able to rule out the possibility that, when he intensified secrecy, Stalin made a mistake. The one thing we will observe without ambiguity is the sign of the slope of the *t* function. Thus, identifying the relationship between secrecy and transaction costs is the contribution of this paper. To go further, we would need to observe the $\bar{x} - s$ curve too. The existence of the $\bar{x} - s$ curve is not supported by evidence, but it is implied by the intuition that secrecy could be 'excessive.' In turn, it assures us that the right amount of secrecy (for Stalin) could not have been zero. As soon as it is accepted that secrecy might have been too much (or too little), we can infer the existence of a right amount. A model on the lines of Figure 1 is then the simplest possible formalization of that intuition.

¹² In economics there is an extensive literature on information, reviewed by Stiglitz (2000). This literature has much to say about information costs, and about collective and individual choices over concealment and disclosure, notably in corporate governance and monetary regulation. It is silent, however, on the value of artificial secrecy, when information would be relatively freely observable, except for the fact that the ruler chooses to penalise its disclosure by law.

In this perspective the Soviet political economy is viewed from above as a hierarchical command system. The rationality of the model belongs to the ruler. In the context of the historical literature on Stalinism (surveyed by Kotkin 1995, pp. 1-25), its spirit is closer to a totalitarian view than one that emphasizes plural interest groups or factions, but it is not designed to lend support to that view. It captures the facts that Stalin was clearly in charge, but also had to reckon with the behaviour of others for whom unhesitating obedience would be just as dangerous as overt resistance. The dictator presented them with a Catch-22, from which they had to protect themselves at the same time as they carried out his orders. Richer models are possible, but are not required here to understand the matter at hand.

Does a model based on optimisation by a rational ruler offer a good enough 'fit' to Stalin's rule? From the 1920s to the 1950s the Soviet command system was ruled by a totalitarian dictator whose rationality is often questioned. Sebag Montefiore's (2003, pp. 48-49) biography describes Stalin as a victim of 'paranoia.' Filtzer (2010, p. 18) refers to the 'mindless, excessive secrecy' of the postwar years. Indeed, historians often seem easier with the idea that Stalin blundered uncontrollably than that he calculated.

Resistance to the proposition that Stalin sought to optimise secrecy is natural but mistaken. There is plentiful evidence of Stalin's psychopathology (e.g. Conquest 1971, p. 114; Medvedev 1971, p. 306; Tucker 1974, 1992; Bullock 1993, p. 494; Service 2004, pp. 343-344). Damaged by childhood abuse, Stalin had few scruples, few friends, and a limited capacity for empathy. At the same time he had superior talents for organising information and reasoning logically; in other words, he could rationalise. He excelled at the patient, step-by-step argumentation of syllogisms. In speeches and letters he advanced complex, consistent models of cause and effect in the world. He showed patience and persistence in the pursuit of long term objectives, whether we construe these as personal or political. With this went a high degree of self control, including the ability to wait. He controlled his feelings, rarely allowing himself to express selfdoubt, depression, or despair. Even if he lacked empathy, he had insight and was able to dominate and manipulate others.

Stalin could rationalise; could he also optimise? In some instances, Stalin's policy decisions have been thought to suggest unstable or inconsistent preferences, ruling out optimisation. These include his choices over investment and consumption, and over mass killing and selective repression. In both cases, however, economically minded historians have shown that Stalin's behaviour is consistent with optimisation subject to constraints; when the constraints changed, so did his choices. Stalin favoured investment over consumption when possible, but returned the priority to consumption when intelligence reports warned him that he risked violating the workers' fair wage constraint (Gregory 2004; Gregory and Harrison 2005). He preferred selective repression when possible, but switched to mass killing when internal threats became less well defined (making selection more difficult) and when external threats increased (making the neutralisation of internal threats more urgent) (Harrison 2008b, 2011b; Gregory et al. 2011). In a study of Stalin's approach to monitoring and audit functions, Markevich (2011) points in the same direction: the dictator observably aimed for efficient control, not for control at all costs.

While the dictator had an interest in doing business efficiently, the command system did not exist to be efficient, and it could not calibrate or compute many of the values that would have been required for full optimisation. If Stalin aimed to optimise, he did so intuitively, by trial and error. His attention and capacity for work deteriorated, moreover, after 1945 (Gorlizki & Khlevnyuk 2004), so that he

increasingly left important decisions to subordinates. For these reasons, we should think of optimisation as a working hypothesis, not a proven fact.

Further reason to keep a critical distance from the idea of optimising secrecy can be seen in Figure 1. This diagram is just a visual metaphor, but consider it for a moment as a literal representation of historical reality. If so, if the optimum existed, and if Stalin aimed broadly to achieve it, even a small amount of measurement error or non-maximising behaviour could lead to a relatively large deviation from the optimal allocation at σ^* . This is because the curves are parallel at the optimum, and their slopes diverge only slowly as secrecy becomes too much or too little (for more general discussion see Akerlof & Yellen 1985).

A matter of special importance

The story that follows is taken from a single file in the collection of the USSR MVD (interior ministry) chief administration of places of confinement. The narrative begins in the spring of 1949 and concludes more than a year later. It is a story without drama. There is no excitement, no suspense, no revelation, no reversal, and not even a dénouement. All the personalities are grey. The emotions are fear and frustration. When the evidence runs out, these feelings have not been discharged; at best, they have been normalised.

The labour camps of the Gulag were not self-sufficient. They had to undertake everyday transactions with civilian suppliers and purchasers, with the railways that shipped supplies to and from the camps, and with the state banking system that recorded debits and credits for camp purchases and receipts. In 1949, according to our story, bilateral transactions between the Gulag and its civilian environment began to break down. Reading between the lines, one infers that the breakdown was more threatened than realised; it would have become fully actual, only if all those involved from top to bottom had stuck rigidly to formal rules. Instead, a complete breakdown was avoided to some extent by working around the rules or ignoring them to some degree.

A gap between rules and realities was not unique to this moment or this context. In fact, rigid adherence to the rules might have made the entire Soviet system unworkable. All Soviet managers were compelled to break rules in order to do their job, even when all they wanted was to be left alone to 'sleep peacefully' (Berliner 1957, p. 156). Their skill lay in knowing which rules to break, and by how much.

The evidence of our story is that Soviet managers saw the gap between secrecy rules and realities as particularly dangerous. It produced more than the usual amount of fear. For this reason, although they were willing to work around the rules to some extent, they also took steps to insure themselves against the potentially severe legal consequences of doing so. Insurance involved two things, both directed at their superiors. One was prompt disclosure of the illegal actions they were being forced to undertake; this implicated their superiors in joint responsibility either for rule breaking or for the plan breakdown that would follow from full compliance. The other was to invest significant time and effort in lobbying superiors for the rules to be adapted to reality.

Background

Labour camps were given different designations, or names and addresses, for different purposes. Specifically, every camp had a 'full' or 'effective designation' (polnoe or deistvitel'noe naimenovanie) and one or more 'conventional designations' (uslovnoe naimenovanie).

The purpose of the conventional designation was to avoid disclosure of the full name and address. The conventional designation was for non-secret use, most commonly in providing release certificates, enabling personal

correspondence between prisoners and their relatives, and in personal correspondence with camp officers and hired employees. While to conceal the full designation was the first priority, it was particularly important also to avoid disclosing the concordance between full and conventional designations.

Volzhlag, also known as Volgolag (and before that Volgostroi), provides an example. The full name of this camp was Volzhskii ITL MVD (the MVD Volga Corrective Labour Camp), opened in 1946 and transferred in April 1953 to the Yaroslavl' provincial MVD administration.¹³ The camp's full address was 'Perebory village, Rybinsk ward (raion), Yaroslavl province (oblast').' Volzhlag also had a unique telegraphic address, 'Volga.'

Unique letter codes were issued to every camp under MVD decree 001542 of December 25, 1945. For Volzhlag, high in the Russian alphabet, it was 'E'; camps lower down the list had codes with two or three letters. Camps were issued with letter-coded stamps and seals (shtampy i pechati) to certify releases and correspond with persons such as prisoners' relatives, Gulag officers, and hired employees. Stamps were articles of convenience that substituted for typed or printed letterheads. Circular seals were more important because without them even signed original documents had no legal force. At this time, meanwhile, camps continued to use their full designations in correspondence with state organisations and state counterparties; they were also issued with stamps and seals giving full designations in order to authorise and notarise such correspondence and financial documentation under MVD decree no. 00249 of April 29, 1949.

Finally, mailbox numbers were issued under MVD decree 0035 of January 15, 1949; these were for use in all non-secret correspondence, so as to avoid fuller identification.¹⁴ For Volzhlag, the mailbox address was 'Shcherbakov town, mailbox no. 229.'

Issues

Our story begins on February 15, 1949, when Gulag third administration chief Volkovyskii forwarded a letter to second administration legal department chief Lyamin. The letter was from Moldavian deputy interior minister Babushkin to Gulag chief Dobrynin in Moscow.¹⁵ It reported that the local oil industry distributor was refusing orders for fuel from the local Gulag administration. The reason: these orders were classified secret, as they had to be, given that the delivery address was a state secret. But under the Soviet Union's secrecy regime the fuel supplier was entitled to accept secret orders only from military units. The camps of the Moldavian Gulag were not military units, so their orders were returned without being met. The same difficulty was affecting supplies of meat, grain, and other food products to the camps, and so was 'demoralising the work of supply.'

¹³ The Memorial website entry under 'Volzhskii ITL MVD' at http://www.memo.ru/history/nkvd/gulag/r3/r3-63.htm (accessed September 30, 2010), provides these and following details.

¹⁴ Mailbox numbers were first issued, apparently, in 1939, to enable camps to subscribe to periodical publications without revealing their full addresses. Hoover/GARF, 9414/1/21, l. 49 (Gulag chief Filaretov, decree dated January 16, 1939).

¹⁵ Hoover/GARF, fond R-9414, op. 1dop, delo 145, ll. 1a, 3.

A related issue emerged with a letter of April 7 from MVD war supplies administration chief Gornostaev to deputy interior minister Obruchnikov.¹⁶ MVD decree no. 0035-1949 (see above) ordered that labour camps' non-secret correspondence should use mailbox numbers as the only form of designation. This created the following problem. Gosbank, the state bank, held its depositors' full names and addresses, not mailbox numbers. Gosbank was now refusing transfers to or from the settlement accounts of labour camps based on identification by mailbox number, because this did not match the account details that it held. But full designations were now a state secret that could not be disclosed to Gosbank, although Gosbank already held this information in the account details. Payments were being held up and there was a risk of penalty charges for setting up transfers incorrectly.

A note of August 6 from MVD supply administration Moscow office chief Slobodkin to Gulag chief Dobrynin widens the frame.¹⁷ Slobodkin reported a general breakdown in the settlement by labour camps of invoices for equipment and medical supplies. Bank officers were rejecting payments across the board on the grounds that the payer was insufficiently identified. Bank records had not been updated to correspond with depositors' mailbox numbers. Slobodkin warned Dobrynin, in updating them, to anticipate a problem. Under MVD regulations it was prohibited to extract information from secret documents. If the document that Gulag now provided to Gosbank was a list of camps by mailbox number, labeled 'top secret' or 'secret,' it would be illegal to extract the necessary information. Slobodkin asked Dobrynin 'not to delay a solution.'

Time passed, but the mismatch between rules and realities persisted. On March 9, 1950, for example, Volzhlag chief Kopaev reported to Gulag secretariat chief Chirkov his anxieties over procedures.¹⁸ The root of the problem, he suggested, was a clash between two MVD decrees. Decree no. 001542-1945 gave every camp a letter-coded designation and letter-coded stamps and seals to authorise releases and correspond with private persons. Decree no. 00249-1949 issued stamps and seals giving camps' full designations, for correspondence with state organisations and state counterparties, and to authorise and notarise financial documentation. One problem arose in mailing non-secret correspondence to other government agencies. The letter inside was written on paper headed by the full name of the camp. The envelope, which could be seen by anyone, carried the sender's mailbox number and town. Put the two together and you had access to a state secret. Similarly, an order issued to an external supplier bore the camp's mailbox number, while the authorising seal gave its full name. Similar issues arose in dispatching products and making payments. Someone in the secretariat wrote in the margin: 'Comrade Rozenberg. We need to speed up agreement on the draft decree. March 17, 1950.'

Recall MVD war supplies administration chief Gornostaev, who wrote first to deputy interior minister Obruchnikov on April 1949. He appears in the file twice more, the second time on July 24, 1950, more than a year later, writing to new deputy interior minister Serov.¹⁹ He began by reminding Serov that the matter was not new. MVD decree no. 0035-1949, he continued, did not cover the

¹⁶ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 4.

¹⁷ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 8.

¹⁸ Hoover/GARF, fond R-9414, op. 1dop, delo 145, ll. 26-27.

¹⁹ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 42.

addressing of rail and river shipments and bank transfers. At present this could be done only by revealing the full names of camps. The MVD war supplies administration had made proposals, Gornostaev complained, but the matter remained unresolved. 'Given that the disclosure of the full designation of MVD camps, building sites, and colonies, and their location is impermissible,' he concluded, 'I ask for your instructions to accelerate the resolution of this question.'

First steps

Overlapping with this process were the first steps towards a possible resolution. In May 1949, Gulag second administration deputy chief Nikulochkin reported to Gulag chief Dobrynin that the allocation of mailbox numbers to camps had given rise to unanticipated difficulties with suppliers and bank officers.²⁰ He proposed a round of consultations with counterparties to identify solutions. But consultations would involve the exchange of information, which required highlevel authorisation. Nikulochkin asked Dobrynin to authorise the Gulag's financial section chief to visit Gosbank, its transport section chief to visit the transport ministry, and its quartermaster general to visit the ministry of communications.

These visits evidently took place. On July 1, 1949, MVD transport section chief Zikeev reported back that the transport ministry did not need to know details of senders other than mailbox numbers (the report does not discuss the problem of recipients).²¹ The MVD transport section could provide the transport ministry with a daily matrix of shipments by line of origin and destination. The mailbox numbers of camps had to be known to the MVD transport section in Moscow, its local sub-offices along the railway lines, and the station masters. This system already applied to shipments from special-purpose construction projects, i.e. the secret labour camps of the interior ministry's administration for industrial construction, Glavpromstroi.

Six weeks later, on September 21, Gulag acting chief Bulanov proposed two options to deputy interior minister Chernyshov.²² He began by reviewing the current situation: orders for food, clothing, building materials, equipment and machinery, pharmaceuticals, and published materials, were breaking down. The orders went to suppliers as top secret, and were being rejected and returned unfilled. Suppliers required full addresses to fill orders. But to provide these addresses openly would disclose state secrets. The first option that Bulanov proposed to Chernyshov was to assimilate relations between Gulag establishments and civilian counterparties to the rules that the interior ministry had recently (as of August 6, 1949) applied to the military formations of its internal security troops. In effect, every camp would be reclassified as a troop unit (voiskovaya chast') of the MVD. A second option was to re-register every camp with suppliers and banks as an 'MVD facility' (ob"ekt MVD) with a mailbox number. Either way, private correspondence would continue to go via existing mailbox numbers.

Bulanov's memo is followed in the file by two draft decrees for interior minister Kruglov. The first, 'On the introduction of new designations of corrective labour camps,' approved the nomenclature 'MVD facility, mailbox

²⁰ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 5.

²¹ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 6.

²² Hoover/GARF, fond R-9414, op. 1dop, delo 145, ll. 9-13.

number XXXX.²³ It authorised camp chiefs to communicate in top secret their true addresses to deposit holders and railheads, and required them to prepare new stamps and seals incorporating the new nomenclature.

The second draft decree, 'On the procedure for maintaining correspondence of corrective labour camps and formalisation of their documentation on business and financial operations,' provisionally dated November 1949 and so most likely prepared separately, approved the alternative nomenclature 'troop unit no. XXXX' for all camps, except the special Glavpromstroi camps.²⁴ According to this draft decree, Gosbank account holders would register only the troop unit number; orders for goods would specify the unit number and railway line and station. This draft decree gave authorisations and requirements to camp chiefs that were similar to the one before, and covered the complexities of secret and private correspondence in more detail.

At this point the MVD second special section stepped in and became responsible for carrying the matter forward. On November 26, second special section chief Filatkin wrote to Gulag chief Dobrynin asking for comments on a revised draft decree 'On the procedure for maintaining correspondence,' etc. This document is not in the file, but is evidently a revision of the option that sanctioned the renaming of camps as 'troop units.' (the title given is more or less the same with a few extra words).²⁵ Dobrynin wrote back to Filatkin on December 7 with minor amendments and corrections to the list of camps. Dobrynin and Filatkin jointly sent the agreed composite to Kruglov for signature on December 30.

One step forward, one step back

Kruglov did not sign. On January 20, MVD financial department chief Karmanov and chief accountant Zaitsev raised objections to the Dobrynin-Filatkin solution.²⁶ They pointed out that, under a Gosbank instruction of April 2, 1945, troop units could hold only deposit accounts, not settlement accounts with overdraft facilities. The camps currently held 10.6 billion rubles of Gosbank credits that they would have to give up; replacing this would be beyond the budget of the MVD (more evidence, if more is required, that finance mattered in the Soviet economy). For the proposal to work, Gosbank and Prombank, the state industrial investment bank, would have to agree to alter the instructions so that the 'troop units' of the Gulag could raise overdrafts.

Almost immediately, this interpretation was confirmed by Gosbank. On February 4, 1950, financial service state counsellor Borychev wrote to deputy interior minister Mamulov to make a simple point: Renaming labour camps as troop units would not preserve secrecy.²⁷ 'Everyone knows,' he explained patiently (or was that sarcasm?) that military troop units were not funded by Gosbank. The labour camps had large funding needs. The discrepancy, he pointed out, would attract attention and lead directly to what was to have been avoided: disclosure of the location of camps. It would be better, Borychev

²³ Hoover/GARF, fond R-9414, op. 1dop, delo 145, ll. 12-13.

²⁴ Hoover/GARF, fond R-9414, op. 1dop, delo 145, ll. 14-16.

²⁵ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 17.

²⁶ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 31.

²⁷ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 30.

argued, to stick to mailbox numbers on a system like that used by the defence industry.

These arguments appear powerful and are not contested in the documentation. Instead, they were ignored. A short background paper from Gulag second administration chief Matevosov, dated May 1950, for example, noted that the 'troop unit' proposal had been current since September when Gulag first proposed it to deputy interior minister Chernyshov.²⁸ It envisaged that, while camps would be renumbered as troop units for business purposes, the system of identifying camps by a letter designation, which originated with NKVD decree no. 001542-1945 (see above), would be maintained for non-secret correspondence such as release certificates and correspondence with private persons.

The MVD leadership met on May 9, 1950. The minutes recorded approval 'in principle' of Filatkin's draft decree, but also asked the MVD secretariat, second special department, and legal unit 'attentively to review' the issue together one more time.²⁹ There is no draft decree, but 95 Gulag establishments are listed by name from 'A' to 'Ya,' each labeled 'Troop unit no. [space].'³⁰ The list is dated December 1949, so it is most likely part of the package originally sent to Kruglov at the end of that month (see above). A sheet attached with a mock letterhead and three seals for correspondence, financial authorisations, and packages respectively, looks as if it has the same origin.³¹ The letterhead followed this template:

МВД СССР	MVD USSR
ВОЙСКОВАЯ ЧАСТЬ	TROOP UNIT
Nº	Nº
19г.	19 (year).
Nº	Nº
гор	Town

The proposal to reclassify labour camps as 'troop units' was still current in June 1950, when a draft letter from interior minister Kruglov to war minister Vasilevskii enquired whether the Soviet Army would object to the renaming of camps as troop units.³² It is not clear whether the letter was ever sent; no reply is filed. Handwritten across the copy on file are the words: 'Comrades Yatsenko and Filatkin. Examine the draft decree one more time for report to the minister for signature. June 8 (signature illegible).'

Indecision

At the back of the file are further draft decrees of the interior minister, one dated '1950' and the other 'August 1950.' The idea of renaming camps as 'troop units' had gone. Instead, both decrees were based on Bulanov's other option of September 1949: camps were to be renamed 'MVD facility' (ob"ekt MVD) with a four-digit number. The first draft decree is a single page followed by lengthy

²⁸ Hoover/GARF, fond R-9414, op. 1dop, delo 145, ll. 22-23.

²⁹ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 35.

³⁰ Hoover/GARF, fond R-9414, op. 1dop, delo 145, ll. 36-40.

³¹ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 41.

³² Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 34.

'Instructions' and a model letter for each camp to send to its local Gosbank branch office.³³

The instructions are more detailed than in previous draft decrees. A key clause states: 'The location (of camps) is a document of special importance (osobaya vazhnost', the highest level of Soviet secrecy) ... Reproduction and duplication are prohibited.' Previous conventional designations, including letter codes and telegraphic addresses were to be abolished, but mailbox numbers would be retained. Secret correspondence within the MVD would use full designations; secret correspondence with other ministries (including MGB, the security ministry) and non-secret correspondence would use only facility numbers. The instructions deal with many other contingencies, including how to deal with camps that are dissolved, newly established, or moved, and so on.

The last draft decree in the file, dated August 1950 (51-56) again enacts the 'MVD facility' solution.³⁴ Model letters to local railway stationmasters (57) and bank officials (58) are included. The tone is more practical and bureaucratic than the preceding draft. Much of the content is similar; two additions stand out. Paragraph 6(e) deals with prisoners and their relatives: 'Mailboxes of MVD corrective labour and special camps are used only for letters, transfers, and packages addressed to prisoners. Answers to relatives of convicts requesting the location of prisoners ... are to be given out only verbally through the information bureau of the first special department ... indicating the mail address of the prisoner's place of confinement (e.g. Skvortsov Ivan Petrovich, year of birth 1903, serving punishment – town of Kotlas, mailbox no. 420).'

And paragraph 3(c) directly addresses the anxieties of Volzhlag chief Kopaev (voiced in March 1950: see above): 'To prohibit the simultaneous use in a single administrative correspondence of differently named forms, stamps and seals of the camp (e.g. application of a seal with the camp's conventional name and use of its actual name on signature, etc.).'

Neither the 'troop unit' nor the 'facility' solution was enacted. On July 29, 1950, MVD war supplies administration chief Gornostaev complained – again – to deputy interior Serov.³⁵ The interior minister, he said, had issued more decrees: in addition to no. 0035-1949, there was now decree no. 00108-1950. These decrees (not in the file, unfortunately) gave every camp a mailbox number. The problem, Gornostaev continued, was that nothing had been implemented. MVD camps and building sites had not revised their bank account details, so that the MVD war supplies administration remained unable to debit

³³ Hoover/GARF, fond R-9414, op. 1dop, delo 145, ll. 43-50. The model letter is not without interest. It is written as if from the Mikhailovskii camp chief to the Sverdslovsk branch office of Gosbank. Headed 'Top secret' and 'In person only,' it reads: 'I inform (you) that the Mikhailovskii corrective labour camp of MVD has been given the conventional designation "MVD facility no. 5401". In connection with this I request (you), from September 1, 1950, to change the designation of settlement account no. 258 of the Mikhailovskii camp and rename it: "Settlement account no. 258 of MVD facility no. 5401 in the town of Sverdlovsk".' In the top left hand corner is a place marker for 'Stamp with full designation of the camp.' The words 'with the aim of barring disclosure of the location of MVD corrective labour camps' are crossed out from the text of the letter. Too much information, one supposes.

³⁴ Hoover/GARF, fond R-9414, op. 1dop, delo 145, ll. 51-58.

³⁵ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 24.

camps for shipments because the debits were not accepted by Gosbank; in fact, Gosbank was imposing a 100-ruble penalty for each incorrect debit. Meanwhile, the war supplies administration had to continue to use full details of camp names and addresses, since these were what Gosbank required. Until the matter was resolved, Gornostaev asked permission to maintain this practice, using the MVD secret courier service (spetssvyaz').

Decree no. 00108-1950 was not the final resolution. Gulag second administration chief Matevosov wrote to MVD legal section acting chief Kurbatov on September 23, 1950, asking him for comments on the draft decree 'On the procedure for maintaining correspondence,' revised after the May 9, 1950, MVD leadership meeting and still, apparently, pending.³⁶

Triangular seals have been employed that have become unfit for use

In the spring of 1950 a byplay emerges in the file. On March 4, 1950, Unzhlag chief Ivanov reported to the MVD second special department chief that the previous November, he had asked the MVD Gor'kii oblast office to allow him to order numbered circular seals for internal authorisations, and had been refused on the grounds that MVD had not approved seals for internal use.³⁷ Ivanov asked for a ruling that existing approvals could apply or, failing that, for a new approval. 'Up to the present in Unzhlag,' he wrote, 'triangular seals have been employed that have become unfit for use.'

The letter, accompanied by samples of what Ivanov wanted, was passed from MVD second special department deputy chief Katurkin to MVD secretariat deputy chief Dyukanov and from there to Gulag chief Timofeev. Unzhlag was a timber camp; six weeks later, on April 26, MVD timber camps administration deputy chief Sorokin asked MVD secretariat deputy chief Dyukanov to approve the Unzhlag request.³⁸ No decision yet, then.

The Outcome

Nearly one year after Volzhlag chief Kopaev first reported it (above), the problem of mixing secret and non-secret identities in non-secret correspondence continued to trouble camp officials. On February 9, 1951, Bazhenovlag acting chief of administration Golubev asked MVD secretariat deputy chief Dyukanov for urgent clarification of MVD decree no. 0035-1949. Two months passed before Gulag organisation department chief Lyamin replied, on April 4: 'A draft decree has been presented to the USSR MVD leadership on the procedure for correspondence about questions of the production and business activities of camps. Given a positive decision on this question, the questions raised by comrade GOLUBEV will find their solution.'³⁹

³⁸ Hoover/GARF, fond R-9414, op. 1dop, delo 145, ll. 67, 70, and 73.

³⁹ Hoover/GARF, R-9414/1dop/157, ll. 1-2. 'Bazhenovskii ITL MVD,' telegraphic address 'Kombinat'; address 'Sverdlovsk province (oblast'), Asbest town'; mailbox number 35 or ED-35. See the entry under the Memorial website

³⁶ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 66.

³⁷ Hoover/GARF, fond R-9414, op. 1dop, delo 145, l. 71. 'Unzhenskii ITL MVD,' telegraphic address 'Unzha'; address 'Sukhobezvodnoe station, Gor'kii province (oblast')'; mailbox number 242. See the entry under the Memorial website at http://www.memo.ru/HISTORY/nkvd/gulag/r3/r3-431.htm (accessed September 30, 2010).

On February 27, 1953, the MVD finally issued decree no. 0033-1953 (again, missing from the files), with new rules to resolve the problem of unintentional disclosure of state secrets in non-secret correspondence. Provincial MVD administrations reported new mailbox numbers to their superiors and to bank officials and other counterparties; there was no further mention of 'troop units' or 'facilities.'⁴⁰

By this time, it would appear, the fear had subsided. As a measure of that, the files of the party control commission from this period show only two cases involving the loss of secret documents. One, dated April 1951, involved deputy minister of the timber and paper industry Izvekov.⁴¹ In 1944, as director of a paper factory in Gor'kii (Nizhnii Novgorod) province, but temporarily absent, Izvekov should have received a coded telegram from GOKO, the state defence committee. Until his return, the telegram was held by the local city party secretary, Morozov. After that, it went missing. Seven years later, Morozov insisted he had handed it to Izvekov, but admitted he had failed to get a receipt; Izvekov denied receiving it. These failures were still significant, for the report of 1951 was addressed directly to A. N. Poskrebyshev, Stalin's chief of staff. But there was also forgiveness: the report gave both Izvekov and Morozov the benefit of the doubt.

Two years passed before another case was filed in June 1953 in connection with lax accounting for paperwork in the USSR state committee for supply of food and consumer goods.⁴² Four secret documents were missing. In the most favourable outcome, they had been destroyed without the necessary record being made. Two documents were outstanding on the account of deputy chairman Rudnitskii, one against former chairman Pavlov (who blamed his deputy Selivanov), and one against secretary Polievktov (who blamed the current chairman Rybakov, who blamed inspector of the secret department Sokolov). Rybakov ended this game of pass-the-parcel by warning Rudnitskii and Selivanov and reprimanding Polievktov and Sokolov. These were light penalties, normal and frequent in the bureaucratic career of any moderate risk-taker. There was no hint of criminal charges.

Six years after the secrecy law of June 9, 1947, the number of complaints about its impact had fallen away. The officials of the Gulag had evidently learned to do business in spite of the new regime. Perhaps, through habituation, they no longer feared it. Stalin was on his way to see Marx. The Gulag would shrink to a shadow before disappearing forever in 1960. But its secrets would be kept for another generation.

at http://www.memo.ru/history/NKVD/GULAG/r3/r3-19.htm (accessed June 29, 2011).

⁴⁰ For example, Hoover/GARF, R-9414/1dop/187, ll. 32-33 (Chuvash ASSR, March 17, 1953); file 204, ll. 24-25 (Kaliningrad province, March 10, 1953); file 212, ll. 18-19 (Crimea province, March 14, 1953).

⁴¹ Hoover/RGANI, 6/6/1575, ll. 33-34 (report to Poskrebyshev, signed by KPK chairman Shkiryatov, April 16, 1951.

⁴² Hoover/RGANI, 6/6/1650, ll. 21-23 (report to KPK chairman Shkiryatov, signed by responsible controller Byshov, June 1953). The report responded to a former employee of the state committee who had complained of mismanagement and various abuses.

Effects on transaction costs

This story, observed in real time, would be one of maddening tedium. Cut down to a few paragraphs, it yields basic insights into the trade costs and decision costs of doing Soviet business when secrecy was tightened.

Trade costs

The evidence of the Gulag in 1949/50 reveals the role of secrecy as an inhibitor of exchange. The law of June 9, 1947, suddenly intensified secrecy throughout the Soviet economic and political system. The shock was not instantaneous, because it took many months to implement fully, but it was surely unanticipated. This shock complicated the relations between the Gulag and its civilian environment. As a result, trade became more costly; possibly, some exchanges did not take place at all, although they were authorized and both parties would have wished to make them.

The wider effectiveness of secrecy might be overstated in our documents. Perhaps the identity and location of many camps was not so much a secret as an 'open secret.' Although they did not have the legal right to such knowledge, many people might have been perfectly well aware of the identity and address of many particular camps. While this may be true, it does not really change the essence of the story as far as it concerned transaction costs. For some purposes, it is not enough to know something; the knowledge you have must be verifiable. For example, in writing a contract or making a bank transfer, you have to be able to assure your own legal identity and/or be assured of the legal identity of the counterparty – even if you meet regularly to do lunch. What secrecy legislation did was to put verifiable knowledge out of reach, and from a transaction-cost perspective it probably did not matter whether the knowledge was an open secret or a real one.

There is irony in this. The contractual parties and counterparties were not independent buyers and sellers in a real market. They were owned by the state, were commissioned by the state to operate in an internal market that the state had created, and were trying to make or complete contracts that the state had already authorised, but the state's own laws prevented them from identifying themselves to each other in a way that would let this happen. Or, if it happened, it was at a higher cost than would have been necessary in the absence of those laws. Ultimately this cost was paid by the state that made the internal market and the laws that regulated it.

Notably, it is the authorised trade of the Gulag that was visibly hindered, involving exchanges that had been approved in state plans and were aimed at supporting regime objectives – the same regime that had enacted the secrecy laws. No effect was reported on any unauthorised trade of the Gulag, which was probably not going on in the first place. Gulag officials were not like scientists; they did not have opportunities to meet with foreigners or any incentive to share information or resources with them, so there was no local parallel with the 'KR' affair. In other words, increased transaction costs in the Gulag were part of the price that Stalin paid in order to exclude more 'KR' affairs elsewhere.

A mitigating factor was the human capacity to normalise changes in the regime over time. At first, the new secrecy law was frightening. Officials did not know how it would work and how it might affect them. It took several years to learn how to work around it and insure against it. Eventually, however, it became the new 'normal.'

Decision costs

The problem of how to do business while keeping camps and their locations secret, which arose early in 1949, took several years to resolve. The byplay

about the Unzhlag seals shows the same thing. Camps had to have official seals to function as legal economic entities, but no one could be found to authorise the ordering and purchase of new seals when old ones became worn out. Indecision on the major issue became an excuse for delay on minor matters, however distantly related.

Anyone can be tempted to delay a decision. In behavioural economics, procrastination is attributed to undue salience of the costs of present action relative to future action (Akerlof 1991). Alternatively, complex organisations can give rise to rational procrastination, because delay allows individual officials to transfer work pressure or responsibility onto others. Rose-Ackerman (1986) considers an organisation in which jurisdictions overlap so that a decision can be taken at more than one instance. Here, a reputation for timely decision making is a liability; the official that has this will be overwhelmed by petitioners. Inaction shifts work pressure onto others. The procrastination that is most applicable to our story, however, may be the type that passes responsibility for decisions to others. One example is the tendency of leaders of democracies to leave hard choices to the next administration (Gomes, Kotlikoff, and Viceira 2007). This would seem to apply equally to officials in bureaucracies, such as the Soviet one, where there is rapid circulation among posts, allowing difficult decisions to be left to successors.

In our story, Gulag officials did not wish to be held accountable for wrong decisions, so the safest course was to take no decision and hope that responsibility could be shifted elsewhere. What were the costs of that indecision? There was a pure time cost; a decision that would optimally be taken now was taken later. On top of that, when a decision was delayed, there was an increase in the total of resources consumed by committee time and fact finding to make it. This is because the decision was considered and reconsidered repeatedly in the process. Higher officials used their time to prolong investigations and draft and redraft complicated decrees and instructions in alternative variants that were never approved. Lower officials used their time to press for information about the progress of a decision that was never made. The decision they wanted had no political significance; it was of a technical nature that might be thought well suited to a committee of experts. The problem was that the committee did not decide.

Delay and trade costs interacted. The Soviet officials that left these issues hanging in the air were demonstrating indifference to heightened transaction costs. While they left matters unresolved, officials and managers below them continued to avoid responsibility where necessary, to work around the rules where possible, and to take out the insurance that seemed to be recommended – to give time and effort to lobbying Moscow for change. So, decision costs and trade costs fed off each other. The officials that repeatedly delayed effective resolutions tolerated this negative spiral.

From a system point of view, procrastination had one merit. What appears to have happened is that senior managers postponed resolution for several years, waiting until junior managers had found a workable accommodation to the new regime. Then, they legislated in such a way as to formalise this accommodation. There is no evidence that this happened by design, but it is suggestive of the option value of wait-and-see.

The tendency to indecision belies the reputation of autocracies for decisive action. While indecision can be found in any organisation, it had fewer restraints in the government of a closed society under a dictator. Soviet officials answered only to superiors for their actions, and Stalin did not have to account to anyone for his. Although this might seem to facilitate easy decision making, autocracy also created shelters for the indecisive. In an open society, in contrast, indecision is visible. Private corporations in a competitive market economy answer for higher costs to the buyer, who can switch business to a competitor. Competing business organisations must develop mechanisms to limit indecision and other business costs, or leave the market. Democratic leaders must answer for the costs of government to voters, including taxpayers, who can switch their votes to political rivals. Media competition creates a market for compromising information about politicians' performance and a race to disclose it. Political competition means that information prejudicial to one party is likely eventually to be exposed by another. Secrecy is routinely downgraded by 'a fixed pattern. Classified documents are routinely passed out to support an administration; weaken an administration; advance a policy; undermine a policy. A newspaper account would be incomplete without some such reference' (Moynihan Commission 1997, p. A-3). This does not rule out indecision, but it ensures we know about it.

Stalin had a clear idea of decision costs and the importance of efficient control. By the nature of his regime, he could not expose it to public scrutiny or apply the discipline of competition. One of the few instruments available to him was terror. But the application of terror increased the fear of being identified as accountable for decisions, and this exacerbated the problem of indecision.

Conclusion

Comparisons of democracy and dictatorship suffer from an asymmetry. Democratic business is done in public, and democracy's transaction costs are all too visible. Dictators do their business in secret, so their transaction costs are hidden. We get to see the evidence, only after regime change makes their archives available.

This paper exploits archival evidence on transaction costs produced by an exogenous shock to the Soviet government bureaucracy. The shock was Stalin's sudden tightening of secrecy in 1947, by which he aimed to deter officials from engaging in the unauthorised exchange of information with outsiders. This led to significant problems for the business of the Gulag in 1949 and 1950. It was not only unauthorised business that became more costly. The new rules made all business more costly – authorised as well as unauthorised. Higher costs hindered transactions that were previously authorised and desired on both sides, and may have prevented some.

Business relationships were maintained, only to the extent that the parties were willing to work around or ignore the new rules. In that context, however, neglect of the rules was now more dangerous than before, because the law of 1947 was explicitly aimed at secrecy violations committed without intending to harm the state. Those responsible for the business of the Gulag tried to insure themselves by both implicating their superiors in the actions they took to work around the rules, and lobbying for action to remove these difficulties. Higher level responses were marked by indecision and delay. In short, we observe that, when the level of government secretiveness was markedly increased, both trade costs and decision costs rose.

Economic analysis suggests that, when higher costs are incurred willingly, this is done to get some equal or greater expected benefit. If the Soviet rulers were willing to face higher costs arising from secrecy, the question that follows is: where was the commensurate payoff? The available documents do not explicitly motivate either the classification of the identification and location of labour camps as one of the most important secrets of the Soviet Union, or the extra measures that strengthened their security. Instead, we infer motivation

from the context of the 'KR' affair: Stalin was concerned to limit the scope for sideline dealing and regarded increased secrecy as an effective way to do this.

Did Stalin reckon with the increase in trade and decision costs that followed? He might have launched the intensification of secrecy because he calculated that higher transactions costs would be compensated by a greater reduction in sideline losses, or because he miscalculated. Without direct evidence, we cannot be certain. This gives a sense of the gaps to be filled before we can fully understand the scope and complexity of Soviet secrecy.

References

- Akerlof, G. A. (1991) 'Procrastination and Obedience,' *American Economic Review*, 81, 2.
- Akerlof, G. A., & Yellen, J. L. (1985) 'Can Small Deviations from Rationality Make Significant Differences to Economic Equilibria?' *American Economic Review*, 75, 4.
- Alexopoulos, G. (forthcoming) *Human Material: Health and Inhumanity in Stalin's Gulag* (New Haven, Yale University Press).
- Applebaum, A. (2003) Gulag: A History of the Soviet Concentration Camps (London, Allen Lane).
- Bacon, E. (1994) The Gulag at War: Stalin's Forced Labour System in the Light of the Archives (Basingstoke, Macmillan).
- Barnes, Steven A. (2011) Death and Redemption: The Gulag and the Shaping of Soviet Society (Princeton, Princeton University Press).
- Berliner, J. S. (1957) *Factory and Manager in the USSR* (Cambridge, MA, Harvard University Press).
- Bone, J. (1999) 'Soviet Controls on the Circulation of Information in the 1920s and 1930s,' *Cahiers du Monde russe*, 40, 1-2.
- Bullock, A. (1993) *Hitler and Stalin: Parallel Lives*, second edition (London: Fontana).
- Caune, A., Bleiere, D., & Nollendorfs, V. (eds) (2007) Latvia and Eastern Europe in the 1960s-1980s: Materials of an International Conference, 10 October 2006, Riga (Riga, Latvijas vēstures institūta apgāds).
- Conquest, R. (1971) *The Great Terror: Stalin's Purge of the Thirties*, revised paperback edition (Harmondsworth, Pelican).
- Davies, R. W. (1989) The Industrialisation of Soviet Russia, vol. 3. The Soviet Economy in Turmoil, 1929-1930 (Basingstoke, Macmillan).
- Davies, R. W. (1996) The Industrialisation of Soviet Russia, vol. 4. Crisis and Progress in the Soviet Economy, 1931-1933 (Basingstoke, Macmillan).
- Esakov, V. D., & Levina, E. S. (1994) 'Delo "KR" (iz istorii gonenii na sovetskuyu intelligentsiyu),' *Kentavr*, 3.
- Filtzer, D. (2010) The Hazards of Urban Life In Late Stalinist Russia: Health, Hygiene, and Living Standards, 1943-1953 (Cambridge, Cambridge University Press).
- Frankland, M. (1999) Child of My Time: An Englishman's Journey in a Divided World (London, Chatto & Windus).
- Fürst. J. (ed.) (2006) Late Stalinist Russia: Society Between Reconstruction and Reinvention (London, Routledge).
- Gomes, F J., Kotlikoff, L. J., & Viceira, L. M. (2007) 'The Excess Burden of Government Indecision,' NBER Working Papers 12859 (Cambridge, Mass.: National Bureau of Economic Research).
- Gorlizki, Y. (1999) 'Rules, Incentives and Soviet Campaign Justice after World War II,' *Europe-Asia Studies*, 51, 7.

- Gorlizki, Y. (2002) 'Ordinary Stalinism: The Council of Ministers and the Soviet Neopatrimonial State, 1946-1953,' *Journal of Modern History*, 74, 4.
- Gorlizki, Y., & Khlevnyuk O. (2004) *Cold Peace: Stalin and the Soviet Ruling Circle,* 1945-1953 (New York, Oxford University Press).
- Gregory, P. R. (2004) The Political Economy of Stalinism: Evidence from the Secret Soviet Archives (Cambridge, Cambridge University Press).
- Gregory, P. R., & Harrison, M. (2005) 'Allocation Under Dictatorship: Research in Stalin's Archives,' *Journal of Economic Literature*, 43, 3.
- Gregory, P. R., & Lazarev, V., eds. (2003) *The Economics of Forced Labor: The Soviet Gulag* (Stanford: Hoover Institution Press).
- Gregory, P. R., Schröder, P. J. H., & Sonin, K. (2011) 'Rational Dictators and the Killing of Innocents: Data from Stalin's Archives,' *Journal of Comparative Economics*, 39, 1.
- Grybkauskas, S. (2007) 'The Soviet Dopusk System as Society Control Lever in the Industry of Soviet Lithuania during 1965-1985,' in Caune, A., Bleiere, D., & Nollendorfs, V. (eds) (2007).
- Harrison, M. (2005) 'The Fundamental Problem of Command: Plan and Compliance in a Partially Centralised Economy,' *Comparative Economic Studies*, 47, 2.
- Harrison, M. (2008a) 'Secrecy,' in Harrison, M. (ed.), (2008c).
- Harrison, M. (2008b) 'The Dictator and Defense,' in Harrison, M. (ed.), (2008c).
- Harrison, M. (ed.) (2008c) *Guns and Rubles: the Defense Industry in the Stalinist State* (New Haven, Yale University Press).
- Harrison, M. (2011a) 'Forging Success: Soviet Managers and Accounting Fraud, 1943 to 1962,' *Journal of Comparative Economics*, 39, 1.
- Harrison, M. (2011b) 'The Soviet Union After 1945: Economic Recovery and Political Repression,' *Past & Present*, 210 (suppl. 6).
- Harrison, M. (2012) 'Accounting for Secrets,' Paper to the World Economic History Congress, July 9-13, 2012, Stellenbosch.
- Hayek, F. A. (1945) 'The Use of Knowledge in Society,' *American Economic Review*, 35, 4.
- Heinzen, J. (2006) 'A "Campaign Spasm": Graft and the Limits of the "Campaign" against Bribery after the Great Patriotic War,' in Fürst. J. (ed.) (2006).
- Hough J. F. (1985) 'Debates About the Postwar World,' in Linz, S. J. (ed) (1985).
- Jasny, N. (1951) 'Labor and Output in Soviet Concentration Camps,' *Journal of Political Economy*, 59, 5.
- Johansson, J. M. (2004) 'Security Management: The Fundamental Tradeoffs,' Microsoft Technet Library at http://technet.microsoft.com/enus/library/cc512573.aspx (accessed on May 17, 2011).
- Khlevnyuk, O. V. (2004) The History of the Gulag: From Collectivization to the Great Terror (New Haven, Yale University Press).
- Kotkin, S. (1995) *Magnetic Mountain: Stalinism as a Civilization* (Berkeley and Los Angeles, University of California Press)
- Kozlov, V. P. (ed.) (2004/2005) *Istoriya Stalinskogo Gulaga*, 6 vols (Moscow, Rosspen).
- Krementsov, N. (2007) 'In the Shadows of the Bomb: U.S.-Soviet Biomedical Relations in the Early Cold War, 1944-1948,' *Journal of Cold War Studies*, 9, 4.
- Libicki, M. C., Jackson, B. A., Frelinger, D. R., Lachman, B. E., Ip, C., & Kalra, N. (2010) *What | | | Should Be | | | Classified? A Framework with Application to the Global Force Management Data Initiative* (Santa Monica, RAND National Defense Research Institute).
- Linz, S. J. (ed.) (1985) *The Impact of World War II on the Soviet Union* (Totowa, N.J., Rowman & Allanheld).

- Losev, A. I., & Kazakov, V. I. (1992) 'Korpus voennykh topografov,' *Voenno-istoricheskii zhurnal*, 10.
- Markevich, A. (2011) 'How Much Control is Enough? Monitoring and Enforcement under Stalin,' *Europe-Asia Studies*, 63, 8.
- Medvedev, R. (1971) Let History Judge: The Origins and Consequences of Stalinism (London, Macmillan).
- Moynihan Commission (1997) *Report of the Commission on Protecting and Reducing Government Secrecy.* Senate Document 105-2 Pursuant to Public Law 236, 103rd Congress (Washington, United States Government Printing Office).
- Rose-Ackerman, S. (1986) 'Reforming Public Bureaucracy through Economic Incentives?' *Journal of Law, Economics, and Organization*, 2, 1.
- Sebag Montefiore, S. (2003) *Stalin: The Court of the Red Tsar* (London, Weidenfeld & Nicolson).
- Service, Robert (2004) Stalin: A Biography (London, Macmillan).
- Stiglitz, J. E. (2000) 'The Contributions of the Economics of Information to Twentieth Century Economics,' *Quarterly Journal of Economics*, 115, 4.
- Tikhonov, A. (2003) 'The End of the Gulag,' In Gregory, P. R., & Lazarev, V. (eds) (2003).
- Tucker, R. C. (1974) Stalin as Revolutionary, 1879-1929 (New York, Norton).
- Tucker. R. C. (1992) Stalin in Power: The Revolution from Above, 1928-1941 (New York, Norton).
- Voronkov, N., & Zakuvaev, N. (1982) 'Topogeodezicheskoe obsluzhivanie voisk,' *Voenno-istoricheskii zhurnal*, 12.
- Weber, M. (1946) Essays in Sociology (Oxford, Oxford University Press).
- Zubkova, E. (1998) Russia After the War: Hopes, Illusions, and Disappointments, 1945-1957 (Armonk, N.Y.: M. E. Sharpe).