



Trading Effort for Freedom: Workday Credits in the Stalinist Camp System¹

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In this paper, we focus on the economics of forced labour during Stalinism. We show that, despite the regime's ability to apply massive coercion, the camp system administrators used various incentives to raise labour productivity. The particular incentive system examined in this paper is the so-called workday credit system. Workday credits provided for a reduction in sentences for plan fulfilment and overfulfilment to motivate prisoners. An analysis of the economic implications of this instrument enables us to gain insights into the economic goals the camp system administrators pursued. We demonstrate that profitability (or loss-minimisation) was a major concern for the administrators of the Stalinist prison camp system, although the strategies on how to achieve it changed over time.

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INTRODUCTION: THE LABOUR ECONOMICS OF THE STALINIST CAMP SYSTEM – OPEN QUESTIONS AND POSSIBLE APPROACHES²

Hard physical labour was the distinguishing feature of Soviet 'corrective labour camps' and 'colonies' (Applebaum, 2003, p. 217), where, from early

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²We refer to the system of 'corrective labour camps' and 'corrective labour colonies', as 'camp system'.



1930s to mid-1950s, an accumulated total of some 17–18 million prisoners were detained (Ellman, 2002, pp. 1160–1161, 1164), the majority of them being either victims of overt ‘political’ repression, or of the utterly repressive criminal justice system.³ Given the lack of scholarly works addressing the arrangements by which forced labour was organised inside them, on the one side, and the outstanding comparative weight of distinct economic tasks among the set of functions they were due to perform, on the other, it is self-evident that specific investigations into the economics of forced labour in Soviet camps are a central prerequisite for finally explaining their *raison d’être*. Abram Bergson’s approach to the study of Soviet resource allocation provides a useful model for organising such research. He focused on the system’s directors’ objective function which he used as a yardstick for analysing observable forms of economic conduct with regard to economic rationality (Bergson, 1964, p. 11). Indeed, if Bergson’s concept of the *planners’ preferences* proved constructive in assessing the entire Soviet planning system, its application to the economy of forced labour seems even more justified: While in the ‘normal’, civilian sector one must allow for a residual impact of consumers’ preferences on the choices of the political leadership (*ibid.*, p. 8), this factor can widely be ruled out with regard to the administration of forced labour. Accordingly, the investigation of the economics of the camp system could be organised with the help of the following questions: What was forced labour’s intended function within the specific framework of the Soviet economic and political system? Which means and policies were implemented to put these plans and expectations into practice? What was the real outcome achieved?

To find answers, we must examine the concrete actions by which the Soviet leadership and the administration of the camp system handled forced labour. If we ask who determined the usage of forced labour during the period of Stalinism, the decisive role of the dictator is the first answer that springs to mind. Indeed, Stalin personally approved the large-scale exploitation of forced labour which initiated the camp system. He repeatedly made concrete decisions on the application of forced labour in specific economic projects (Ertz, 2003, p. 132). Nevertheless, the bulk of administrative work relating to the camp system was done by specific institutions, above all, by the People’s Commissariat (since 1946: Ministry) for Internal Affairs (hereafter: NKVD/MVD), including its embodied ‘Chief Administration of Corrective Labour Camps and Colonies,’ better known under the acronym ‘GULAG.’ Even if not in all periods the sole institution charged with administering the camp system

³ On the political justice during Stalinism see Kudriavtsev and Trusov (2000). On the criminal justice see Solomon (1996).



(Ertz, 2004), the GULAG was the main agency that implemented government policy on forced labour. In doing so, it had, on the one hand, a certain latitude as to its design and shape. This included the possibility to influence decisions made by higher organs, such as the NKVD/MVD, the Council of People's Commissars/Ministers, or the Presidium of the Supreme Council. On the flipside, its scope of autonomy was limited by exogenous parameters, which included the total stock, the inflow, and, partly, the outflow of prisoners (Smirnov *et al.*, 1998, pp. 40–42, 45; Khlevniuk, 2001, p. 118; 2003, pp. 48–49). In this research, our attention is mainly directed to the GULAG's behaviour. Given the magnitude of the general research agenda, this paper seeks to shed some light on the intended use of forced labour by addressing a very specific, though fundamental issue – the motivation of working prisoners through special incentives, called workday credits, which granted prisoners a reduction in sentence for high economic performance. This topic is closely related to the issue of the productivity of forced labour. Hence, analysing the policies implemented by the camp system's administration during different periods may provide conclusions about the Soviet leadership's preferences in this realm.

The remainder of this paper is organised as follows. In the next section we examine the main features of the workday credit system, simultaneously summarising the main stages of its application and evolution over time. Against this background, the subsequent section evaluates the GULAG's moves from an economic point of view and tests several hypotheses about economic strategies pursued by the prison camp administration. The final section concludes and points out limitations and variations of the findings' explanatory force. A formal choice model, which serves to illustrate and to substantiate the analysis and evaluation of the camp system administrators' actions, is not included here due to space limitations. However, it is available online as an appendix to an earlier version of this article⁴.

FREEDOM FOR PERFORMANCE – WORK INCENTIVES FOR PRISONERS

Among all types of incentives used by Soviet camp administrators to increase labour productivity, the system of workday credits (*zachety rabochikh dni*) was particularly customised to the conditions of forced labour.⁵ Its principle

⁴ PERSA Working Paper no. 42. University of Warwick, Department of Economics. URL: <http://www.warwick.ac.uk/go/persa>.

⁵ Earlier remarks on this topic can be found in Khlevniuk (2003, pp. 49, 55); and in Borodkin and Ertz (2003, pp. 92–95), which includes discussion of other types of incentives applied in the camp system.



was that prisoners who fulfilled or even overfulfilled production targets (and complied with disciplinary rules) were to be rewarded by a reduction in the effective term of confinement. For instance, a prisoner who continuously overfulfilled production targets could receive one workday credit (1 day less confinement) for each working day and thus could theoretically reduce his entire sentence by nearly one-half.⁶ In case of even better economic performance, higher ratios were also possible – up to two or sometimes even three credits per day.

The use of workday credits in the Stalinist camp system can roughly be divided into three different periods. The first started in the early 1930s with the establishment of workday credits in the so-called ‘corrective-labour camps,’⁷ then operated by the Soviet Unified State Political Administration (OGPU), which were the dominant type of places of confinement since 1933 (Smirnov *et al.*, 1998, p. 34). After the introduction of workday credits in one of the OGPU’s projects in remote Northern territories (State Archive of the Russian Federation, hereafter: GARF. F(ond). 9414. Op(is’). 1. D(elo). 369. L(ist). 45; Obshchestvo ‘Memorial’ and GARF 1998, pp. 179–180⁸), similar arrangements spread to other camps. During the construction of the Baltic White-Sea Canal from 1931 to early 1933, the GULAG’s earliest large-scale construction project built under extreme time pressure, workday credits were widely applied to motivate forced labourers (Morukov, 2003, p. 161). Shortly thereafter, workday credits were established in virtually all prison camps (GARF. F. 9414. Op. 1. D. 369. L. 46). Unfortunately, we cannot gauge the effect of this institution on prisoners’ motivation and productivity, due to the lack of broad empirical evidence. A number of decrees, issued by the GULAG in 1933 and 1934, expose serious problems in the workday-credit system in various camps, stemming from corruption and poor control at lower administrative levels: In several cases, workday credits were allotted to shirking prisoners from criminal groups, rather than to industrious workers. The sanctions imposed on those responsible for these violations, and the lack of reports on similar irregularities in subsequent years, suggest that such problems were, to some extent, brought

⁶ Non-working days were not to be included. Their impact was limited, though, due to the generally small number of days off.

⁷ The workday credit system actually dated back to the 1920s: The ‘Corrective Labor Code’ of the Federative Russian Socialist Soviet Republic, 16th October 1924, provided for the release of outstandingly productive prisoners ‘from the sphere of workers,’ according to a credit ratio of three days sentence reduction for 2 days of work (Kokurin and Petrov, 2000, p. 51.) Yet these regulations exclusively referred to ‘corrective labour colonies,’ which until 1934 were subordinated to the Republican People’s Commissariats of Justice.

⁸ Most of the archival materials from GARF, cited in this chapter, were used at the Hoover Institution Archives, Stanford, CA.



under control.⁹ By the same token, these attempts at remediation underline the GULAG's strong interest in the correct implementation of workday credits, which were considered, as almost all relevant documents explicitly witness, as a useful and necessary means to increase productivity.¹⁰

A turning point in the workday-credit system came in April 1939. Lavrentii Beriia, newly appointed People's Commissioner of the Interior, launched an initiative which led to the abolition of the workday credit system throughout all prison camps and colonies (GARF. F. 5446. Op. 23a. D. 121. L. 9). Not surprisingly, the question of workday credits was not raised during wartime. Given that the overwhelming majority of prisoners were men aged 20–50 years, the alternatives were either to send them to the front or leave them in detention for maximum exploitation.¹¹ In the postwar period, however, it did not take long for discussions about workday credits to resume within the NKVD, and, especially, the GULAG. Documents from this time contain judgments like 'Currently, and especially after the abolition of workday credits [...] the incentives [*for the motivation of prisoners' labour* – *author*] are utterly insufficient and do not yield the necessary results' (GARF. F. 9414. Op. 1. D. 334. L. 194. see also *ibid.*, L. 23). Consequently, workday credits were eventually reintroduced, although the camp system administrators this time exhibited a rather hesitant attitude towards their widespread application. This hesitation is reflected in the fact that these incentives were first established only in a couple of construction sites of Glavpromstroï, an MVD construction organisation, which *inter alia* was setting up facilities of the Soviet nuclear program (GARF. F. 9414. Op. 1. D. 369. L. 46; Obshchestvo 'Memorial' and GARF, 1998, pp. 113–114), and triggered a reported two-fold rise in the share of prisoners fulfilling production targets by more than 125% (GARF. F. 9414. Op. 1. D. 368. L. 402). For unknown reasons, workday credits were again briefly suspended in March

⁹ GARF. F. 9414. Op. 1. D. 3. L. 39ob.; F. 9414. Op. 1. D. 8. L. 46.

¹⁰ This view is also expressed in several debates taking place both within the NKVD and between it and other people's commissariats in later years, for example, in the joint initiative launched by People's Commissioner of the Interior Iagoda and Chief Public Prosecutor Vyshinskii on the abolition of premature releases of prisoners under conditions independent from the workday credit system in 1935, in which the importance of the preservation of the latter is emphasised: GARF. F. 5446. Op. 16a. D. 1253. L. 1.

¹¹ Hundreds of thousands of prisoners were prematurely released from camps and colonies and assigned to the Red Army (GARF. F. 9414. Op. 1. D. 66. LL. 1–61). For those remaining the working time was officially augmented to 12 h a day with – at maximum – 2 days off a month (GARF. F. 9414. Op. 1. D. 1156. L. 226). In addition, on 29 April 1942 Beriia and then Chief Public Prosecutor Bochkov signed a joint directive banning until the end of the war all releases from the camps (i.e. including persons who had completed their sentences!) with the exception of 'complete invalids, the unfit for work, the elderly and women with children [...] in the case of complete impossibility of using them in the camps' (Ellman, 2002, p. 1152).



1948 (GARF. F. 9414. Op. 1. D. 369. L. 45), but within a 2-month period they again were introduced in the camps of 'Dal'stroi' in the Far East (GARF. F. 9414. Op. 1. D. 369. L. 47–48), where more than 100,000 prisoners were engaged in gold mining and a wide range of other colonising activities (Obshchestvo 'Memorial' and GARF, 1998, pp. 117–120, 307–308). In the following two years, 19 additional decrees were issued, expanding workday credits to more and more camps. Yet their use remained confined to camps carrying out projects that were officially classified as being of outstanding importance (GARF. F. 9414. Op. 1. D. 3. L. 39ob.; F. 9414. Op. 1. D. 8. L. 46), and by the beginning of 1950, just 27.1 % of all prisoners in the MVD camps and colonies could earn workday credits.¹² The expansion of these incentives to prisoners in lower priority camps, such as forestry, occurred only after Stalin's death (GARF. F. 9414. Op. 1. D. 195. L. 62), with the ultimate decision to apply them to all camps and colonies being made in summer 1954 (GARF. F. 9414. Op. 1. D. 202. LL. 78, 220).

The workday-credit system, as introduced from 1948 on, differed from the rules that applied in the 1930s in several respects. The distinguishing feature of the postwar system was an extraordinarily detailed differentiation of workday credits. Ratios could vary from half a day to up to two or, in some camps of 'Dal'stroi', even three days of credit for one working day. The actual reward was determined according to discrete scales denoting the number of credits with respect to the degree of plan overfulfilment. These scales in turn varied with regard to the significance of the prisoner's function in the production process (more favourable scales were applied to prisoners working in primary rather than ancillary production), on the kind of work (higher qualified workers benefited from higher ratios), and, in some cases, also on the camp's branch. Such a differentiation seems to have represented an incentive of its own, as we can deduce from a somewhat cynical statement of a GULAG manager: 'There are many cases in which prisoners, who in former times were always seeking a 'cozy' spot, somewhere in the apparatus, in a depot, as a servant and so on, are petitioning now to be moved to the primary work, complaining about not being employed according to their qualification, which they used to conceal before' (GARF. F. 9414. Op. 1. D. 502. L. 222).

¹² GARF. F. 9414. Op. 1. D. 369. L. 45. Ratios for the beginning of 1953 and early 1954 were 40.4 % and 54.2 % (GARF. F. 9414. Op. 1. D. 507. L. 54; D. 202. LL. 24, 78). These ratios are based upon the numbers of prisoners in camps where workday credits were available. They do not reflect whether all prisoners in those camps really received workday credits. However, evidence from single camps suggests that a large majority of prisoners really received credits: For instance, in the camp building the Tsymlianskii hydro-electric power station on the Vol'ga river, which in late 1949 had approximately 10,000 inmates, practically all working prisoners were eligible for workday credits, and about 85 % of those actually received them. See GARF. F. 9414. Op. 1. D. 148. LL. 5–7; D. 1317. L. 4ob.



Consistently praising their positive effects on labour productivity in reports to the government (see, for instance, GARF. F. 9414. Op. 1. D. 369. L. 36; D. 326. LL. 6, 43, 53), GULAG administrators took the correct implementation of workday credits on the ground in the late 1940s and early 1950s at least as seriously, as they had done in the 1930s. Alongside their implementation in the camps, local camp administrations were required to organise various agitatorial activities, and every prisoner was to be provided with a personal ‘workday credit record booklet’ in order to enhance transparency (see, for instance, GARF. F. 9414. Op. 1. D. 195. LL. 62–63; GARF. F. 9414. Op. 1. D. 201. L. 54). Accordingly, administrative documents from this period suggest that the frequency of misuse and manipulation was lower than in the 1930s (see, for instance, GARF. F. 9414. Op. 1. D. 148. L. 5–6), whereas penalties for violations were severe: a circular issued by the chief of GULAG (Dobrynin) in June 1949 to all camp directors threatened to take to court anyone responsible for manipulating workday-credit calculations (GARF. F. 9414. Op. 1. D. 97. L. 128).

WORKDAY CREDITS – A CLUE TO THE GULAG’S PREFERENCES?

Having outlined the history of workday credits, we now turn to two main questions: How can we explain the behaviour of the GULAG with respect to workday credits from an economic point of view, and which insights, if any, do we gain about the general aims of exploiting forced labour in the camps? Why did prison camp administrators use workday credits throughout the 1930s and from late 1940s on, why were these incentives designed as they were, and why were they suspended in 1939? In seeking answers to those questions, we must determine under which conditions and assumptions a workday-credit system would have been considered favorable from an economic point of view. Thus, we have to consider how the workday-credit system affected economic performance, specifically: the development of output and profits of a camp, or, alternatively, of the camp system as a whole. The first hypothesis to be tested is whether output maximisation was the GULAG’s central aim. This conjecture seems reasonable against the background of the general primacy of pure output targets in the Soviet planning process (Bergson, 1964, pp. 133–157; Markevich 2004, p. 129).¹³

¹³ However, output maximisation would apply to the camp economy even if we presume investment maximisation as the *ultima ratio* of economic policy during Stalinism, since a disproportionately high share of the output produced by the camp economy was investment (namely construction). See Gregory and Lazarev (2003, pp. 19–21).

Table 1: Scale for the calculation of workday credits, applied to prisoners in the main field of work

1	2	3
Credits for one working day (c)	For fulfillment of monthly norms (P_{wc}^{-1})	Factor of sentence reduction (q^1)
0.5 day	From 100 to 110%	(0.67)
0.75	From 111 to 121%	(0.57)
1 days	From 121 to 135%	(0.5)
1.5	From 135 to 136%	(0.4)
2	151% or more	(0.33)

¹The value of q is calculated by the formula: $q=1/(1+c)$.

Source: Top-secret joint decree of MVD/General Prosecutor of the USSR No. 00683/150ss from 21. July 1948; column (3) added by the author.

We analyse this hypothesis by assessing how the workday-credit system affected output. Table 1 reproduces the scale according to which workday credits were awarded to prisoners in camps in which the system was introduced from 1948 on:¹⁴

Table 1 shows that a prisoner with at least 121% permanent plan fulfilment would earn 1 workday credit and thus get his sentence multiplied by the factor q , equaling 0.5 in this case. For example, a prisoner sentenced to 10 years would complete his term with 5 years if he every day fulfilled norms by at least 121%. Our analysis relates only to those prisoners, who were able and willing to increase their productivity due to the opportunity to earn workday credits. In the period considered, they apparently accounted for the majority of camp inmates (GARF. F. 9414. Op. 1. D. 507. L 54; D. 202. LL. 24, 78). For all other prisoners, workday credits had no effect. Neither did their productivity increase, nor were they to be released earlier.¹⁵ Thus, it is

¹⁴ This scheme represents the most general one for this period. There existed other schemes, partly more, partly less favourable from the prisoners' perspective. In 1954 the requirements were softened for all prisoners, so that the maximum number of 2 workday credits henceforward could be achieved by fulfilling the production targets by just 121%. See GARF. F. 9414. Op. 1. D. 201. L. 54a.

¹⁵ In the Stalinist camps in many (particularly: in earlier) periods a considerable number of prisoners were physically too weak, too exhausted or for other reasons failed to meet planning quotas, so that their productivity was well below requirements. Such prisoners suffered significant cuts in nutrition, poorer endowment with clothes and other amenities. Therefore, if they were unable to avoid coercive measures, it is most likely that they were not able to respond to incentives like workday credits either. Yet in late 1940s they constituted a clear minority: In 1949, for instance, 89.7% of all prisoners in the MVD's camps and colonies fulfilled or overfulfilled plan targets (GARF. F. 9414. Op. 1. D 326. L. 31). Actually, our approach is even a rather 'conservative' one, as it neglects prisoners *already* overfulfilling productivity targets, who would benefit from the new incentives without having to undertake any additional effort.



remarkable that, for all quotas listed in Table 1, the sentence reduction appears disproportionately high from the standpoint of output maximisation. In fact if we assume an initial productivity of slightly – but not *much* – below 100% norm fulfilment, the mid- and long-term loss of output due to earlier releases and the consequential decline in the overall number of prisoners was more significant than the gain from the increase in their productivity. The percentage increases in productivity were outweighed by the percentage reductions in sentences. So the question arises why the administration of the camp system introduced such an incentive system, thereby foregoing a significant amount of output that could have been extracted from prisoners.

One caveat must be considered: At the moment of introduction of workday credits, almost all prisoners already had served a portion of their sentence, so they had no chance to get their *entire* term diminished by the factor q – since workday credits were not to be awarded retrospectively. Thus, the overall negative effect on output would occur with a time-lag: The inevitable decrease in the number of prisoners and the associated negative effect on aggregate output did not take place immediately, but gradually, reaching its final and permanent extent only after a transitory period of time. The rise in productivity triggered by workday credits, in contrast, appears immediately, remaining thereafter on a constant level. However, the output loss due to declining prisoner totals was bound to become dominant over the productivity increase in the mid- and long run, causing output to eventually fall below its initial level (as schematically shown in Figure 1).

If output maximisation was the camp system administrators' core objective, Figure 1 suggests that the short-term increase in output (hatched area) must have been valued at a higher rate than the long-term losses (grey area), which implies that the GULAG managers' calculations must have been subject to a positive discount rate. Given the actual mechanics of the workday credit system (Table 1), such a discount rate must have been extraordinarily high, as an absolute increase in output would be observable only during the short period of one to two years, while in *all* subsequent years output would remain below its initial level.¹⁶ The question is therefore whether the camp administration indeed had such high discount rates? With respect to the political leadership, this conjecture can be ruled out, since the dictator's

¹⁶ If we assume, for instance, an average term of confinement for all prisoners (T_0) of 10 years, the approximate requirements for receiving one workday credit for one day of work as shown in Table 1, an initial productivity level of 0.95 and a final productivity level of 1.25, a *regula falsi* iteration yields a discount factor $\delta = 0.76469$, which is equivalent to a discount rate $r = 0.3077$ (or 30.8%).

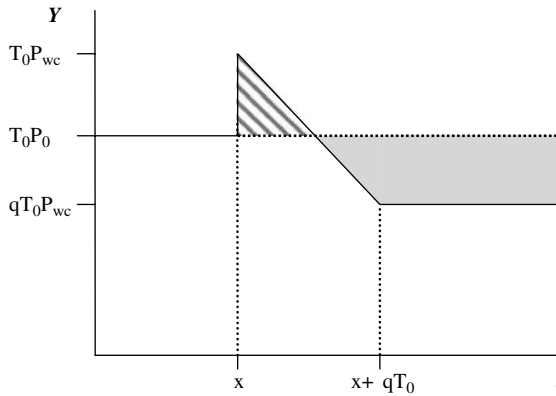


Figure 1: The dynamics of aggregate output after the introduction of workday credits.²⁰ Schematic graph, not drawn to scale. Notation: Y is the aggregate output, t the time, x the moment of introduction of workday credits, T_0P_0 the initial output level, $T_0P_{wc} - T_0P_0$ the short-term increase in total output due to rise in productivity and qT_0P_{wc} the aggregate output level in the long run.

economic moves indisputably did anything but exhibit underlying preferences for economic outcomes in the immediate future of the following 2–3 years. The same should apply to the GULAG as an institution with mid- and long-term economic and political tasks and with many agents at different levels involved in decision-making at any given moment. The only place in the system where high discount rates might conceivably have prevailed was the level of camp directors, who in most cases also acted as managers of the economic activities and were thus endowed with considerable authority (Ertz, 2004, p. 26). Indeed, the turnover of camp directors was remarkably high.¹⁷ Combining the resulting relatively short planning horizon with the prospect of receiving high premiums for overfulfilment of output targets (Bergson, 1964, pp. 75–77), camp managers may have favoured such an incentive system even if it brought about long-term output losses.

Although a systematic verification of this hypothesis is not possible, some casual evidence can be considered. As noted above, the sanctions the GULAG imposed to ensure the accurate implementation of the workday-credit system both during 1930s and at the end of 1940s suggest that, in general, the centre

²⁰ This diagram and the simulations reported above are from the formal model of workday credits mentioned in the introduction.

¹⁷ Most Soviet camp managers remained in their positions during Stalinism no longer than 2–3 years, while the average period might have been even shorter: In many camps they changed virtually every year. See data for individual camps as compiled in: Obschestvo ‘Memorial’ and GARF 1998.



was more eager to make these incentives work than local managers. On the other hand, there are examples of camp managers actively promoting workday credits, such as VS Zverev, the director of the Norilsk prison camp (Noril'slag) in the late 1940s – the main supplier of workforce for the vast Norilsk Nickel plant in North-Eastern Siberia. He even introduced workday-credit scales more favourable to the prisoners than the official scales in order to adjust, as he argued, for specific conditions in certain production facilities (GARF. F. 9414. Op. 1d. D. 151. LL. 289–290¹⁸). Yet the fact that the GULAG promptly approved Zverev's initiative suggests general agreement between him and the centre on the importance of these incentives (GARF. F. 9414. Op. 1d. D. 151. LL. 296–300). More important, perhaps, the Norilsk camp was exceptional: As it was one of the MVD's high-priority projects, its labour force was replenished irrespective of shortages in workforce in the camp system (Borodkin and Ertz, 2003, pp. 77–78). Hence Zverev might not have had to fear a reduction in the number of prisoners in future periods, hence his positive attitude towards an even more generous incentive system. The main challenge to the hypothesis of high discount rates, however, remains the general lack of archival evidence of camp managers lobbying for workday credits. Rather, there appears to have been consensus among the camp system's directors, that is, GULAG officials, during both the 1930s and late 1940s on the advantages of workday credits. Such findings require us to reject the hypothesis that the workday-credit system was based on output maximisation considerations, as incompatible with a long-term (or even mid-term) planner's perspective either without or with *reasonable* time preferences.

Consequently, we have to ask which other motivation might have driven the GULAG's policy. The recurrent characterisation of workday credits as an effective means to increase the prisoners' labour productivity in the GULAG's internal records supports the conjecture that increased labour productivity *per se* had priority over output maximisation in the objective functions of the camp system managers. Increasing labour productivity without incurring significant additional costs was tantamount to raising profitability (or reducing losses). Moreover, given small initial profit margins of camps, even a limited expansion of labour productivity induced by workday credits could bring about substantial percentage upsurges in profits. Such considerations turn attention to the camp economy's profit situation. Fragmentary data collected so far reveals that already in late 1929, a decision was taken to cover all costs with revenues in the (then) OGPU's first three prison camps (GARF. F. 5446. Op. 11a. D. 555. L. 5). This goal was restated in 1930, only now

¹⁸ For a more detailed account see Borodkin and Ertz (2003, pp. 93–95).



revenues should be sufficient to cover costs for prisoners awaiting trial as well (GARF. F. 5446. Op. 11a. D. 725. L. 2). In March 1938, Deputy People's Commissioner for Internal Affairs (Zhukovskii) affirmed that full coverage of costs was reached for the NKVD's entire camp and prison system (GARF. F. 5446. Op. 22a. D. 38. L. 92). However, the GULAG's planned budget for 1940 showed expenses (7,864.01 million rubles) 7% above revenues (7,375.72 million rubles) with the difference to be covered by contributions from the state budget (GARF. F. 9414. Op. 1. D. 28. LL. 122–123). After one year the situation seemed to have altered. In September 1940 Beriia reported to Stalin that the entire system of camps and colonies had reached full return on costs and did not receive any subsidies from the state budget (Arkhiv Prezidenta Rossiiskoi federatsii. F. 3. Op. 58. D. 167. L. 135). From a memo by the then Deputy Minister of the Interior, Chernyshov, we learn that full return on costs was maintained till 1946, when the price reform made it necessary that the camp system receive a subsidy from the state budget for non-working disabled prisoners (GARF 9414.1. 330: 169), a situation which was also reported from 1948 and 1950 (GARF 9414.1.330: 169, D. 326. L.8. Account by Kruglov, Minister of the Interior, to Stalin, February 1948. See also analogous statement from January 1950: *ibid.*, L. 30). For 1952, the planned revenues of camps and colonies subordinated directly to the GULAG (excluding the camps whose economic activities were administered by specific branch administrations of the MVD – see Ertz, 2004, pp. 18–20), amounted to 5,054 million rubles, and a supplementary state subsidy of 506.7 million rubles was needed to close the gap (GARF 9414.1.330: 169, D. 3251. LL. 6, 12). So the camp system as a whole was not able to cover its full costs at various points in the 1930s, as well as in the wake of the 1946 price reform. An instrument to increase labour productivity like workday credits could thus have been an endeavour to achieve return on costs, or even profitability.

A significant problem remains: If we assume that a profit-maximising (or cost-covering) strategy of GULAG managers dictated the choice of workday credits, how can we explain why Beriia, the People's Commissar of Internal Affairs, abolished the workday-credit system in 1939. We must presume that, in doing so, he acted according to the NKVD's, and thus the GULAG's, interests. The main point Beriia gave in favor of the abolition of workday credits was the necessity for the camp system to fulfill challenging new construction projects of the third Five-Year-Plan, which had been approved by the 18th Party congress just a few weeks earlier (GARF. F. 5446. Op. 23a. D. 121. L. 9). According to him, workday credits would make it more difficult for the prison camps to cope with plan assignments by causing an 'exceptionally high turnover within the camp contingents.' However, not only did Public Prosecutor Vyshinskii argue that real-camp figures did not permit such a



conclusion (in a letter to Molotov of May 5, 1939, *ibid.*, L. 5), the GULAG's internal documents also reveal that the real motivation for Beriia's initiative was different. On February 23rd, the heads of the GULAG's accounting and planning departments wrote a joint letter to Deputy People's Commissar of the Interior (Chernyshov), warning about a looming labour shortage: The actual number of prisoners, expected for the second quarter of 1939, fell short of the total need, calculated on the basis of the investment plan, by more than 130 000 (or roughly 9%) (GARF. F. 9414. Op. 1. D. 1140. L. 130). A few weeks later, the head of the GULAG Accounting Department updated the expected labour deficit to 143.000 (GARF. F. 9414. Op. 1. D. 1140. L. 38). In both letters the authors proposed to cope with this scarcity through measures to enhance the prisoners' health and a strict refusal to accept additional economic tasks assigned to the NKVD. Stopgaps such as the transfer of prisoners from prisons and colonies to camps of highest priority were also proposed (GARF. F. 9414. Op. 1. D. 1140. L. 39, 131). Although the abolition of workday credits was not explicitly mentioned, there should be little doubt that the looming labour shortage prompted Beriia to abolish workday credits. This interpretation seems all the more likely given that the Supreme Council's resolution of June 1939 not only banned the future use of workday credits, but also cancelled all credits accumulated by prisoners up to that moment (GARF. F. 7523. Op. 67. D. 2. LL. 10–12. Document has been published in: Kokurin 2000, p. 116).

Apparently, Beriia's 1939 decision to cancel workday credits was driven by the need to meet output targets. Yet, it cannot be interpreted as a lack of interest in profitability. The positive effect from the increase in the number of prisoners, owing to the abolition of workday credits, would have been – at least partly – offset, if their productivity decreased. Indeed, Beriia's central purpose was to tackle 'the most serious task to ensure the maximum possible exploitation of the camps' labour force.' Along with the abolition of workday credits, Beriia addressed some of the points suggested by the above-mentioned letters from GULAG managers (specifically measures to improve health by establishing more adequate nutrition norms). As to labour productivity, a two-fold strategy was promoted: Other types of incentives, such as improved nutrition or housing conditions for well-performing prisoners (which, to be sure, had existed before), were to be accompanied by distinctly harsher sanctions and coercive methods against shirkers and 'malicious disorganisers of camp life' (GARF. F. 5446. Op. 23a. D. 121. LL. 9, 7–6).

In general, the GULAG's speculation, which stood behind Beriia's initiative, was that workday credits could be replaced by other instruments, namely tougher repression, without productivity seriously suffering. The resurfacing of workday credits as incentives soon after the war suggests that



this strategy did not work, but by no means can we conclude that the aim of high productivity as such, which, by the end of the day, meant higher profitability, was abandoned by the GULAG's directors in 1939.

The fact that the workday-credit system was first re-established only in selected camps of higher priority is evidence that the resulting reduction of prisoners was considered an issue that had to be handled with care. It is entirely possible that the GULAG and the MVD, facing temporary shortages in prisoners also during this period (GARF. F. 9414. Op. 1. D. 334. L. 192) feared the wide-scale loss of prison labour resulting from the broad use of workday credits. If there were such reservations, they apparently diminished over time as coverage widened. Nonetheless, the extension of workday credits to the entire camp system had to wait until 1954, after the responsibility for the management of prison camps, on the one side, and for most of the economic projects relying on prison labour, on the other, had been split up between different ministries (GARF. F. 9414. Op. 1. D. 202. LL. 56., 78.; D. 204. L. 19; Ertz, 2004, pp. 27–30).

CONCLUSIONS

On the basis of the GULAG's own historical records we analysed the economic outcome of the workday-credit system and found that it was designed to increase profitability both in the short- and the long run. Given the chronically problematic cost-benefit structure in the Soviet camp system, workday credits were not a sufficient means to make the exploitation of forced labour profitable. However, they must have at least reduced losses and hence state subsidies. The program had to be paid for with decreases in output in the long run as the size of the prison camp population was reduced by early releases. A net positive impact on total output could be observed only during a short transitory period.

Our translation of the camp system directors' observable behaviour – the creation and the implementation of workday credits – into their objective function proceeded partly from archival evidence, partly through assumptions. We have shown that the strategy of output maximisation would have required excessively high discount rates. Indeed, the latter might have applied to camp managers holding their positions only for a short period of time. However, archival evidence reveals that workday credits were promoted no less vigorously by the camp system administration itself, where discount rates presumably were much lower. This evidence clearly supports the hypothesis that increases in profitability (or loss minimisation) was the decisive factor in the promotion of workday credits by the GULAG. If we



interpret the choice for or against the workday credit system as a trade-off between higher output and higher profitability, the camp managers throughout most of the covered period chose profitability. The temporary abolition of workday credits in 1939 can be interpreted as an attempt to implement a more repressive strategy to combine both output and productivity targets in a context marked by an acute shortage of forced labour. In the long run, however, this attempt failed and the managers of the camp system returned to their previous strategy.

Although our argumentation has widely been buttressed by source evidence, the extent to which it is based upon speculation should also be pointed out. One major problem is that we have been talking about the ‘camp system directors’ without addressing the problem of a further fragmentation of power, responsibilities and, consequently, interests. Another problematic assumption is that GULAG policy must have had the approval of the political leadership. Indeed, the proximity of the GULAG, one of the NKVD/MVD’s major *glavks*, to the government supports this presumption. However, it is likely that the GULAG had also its own interests.¹⁹ Future research into the precise distribution of responsibilities, assigned and factual power within the structures administering the Soviet camp system might clarify this point. Furthermore, we must underscore the highly preliminary nature of our results. We have picked only one instrument in the GULAG’s policy in managing forced labour. We are still far from providing a complete picture or even an order of priority of the determinants of the GULAG’s actions.

Nonetheless, one more conclusion can be drawn. In this paper, we have also touched upon the issue of (microeconomic) profitability of forced labour. The story of workday credits – as well as the more general story of different types of incentives being utilised in Soviet prison camps (Borodkin and Ertz, 2003) – reveals a permanent struggle for increases of productivity, led by various means throughout more than two decades. Yet it appears that the fundamental economic problems, inherent in the exploitation of forced labour, could not be solved. The few partial successes in this area typically were achieved through the application of incentives which undermined the

¹⁹ For illustrative purposes only, let us imagine a situation with the GULAG managers having individual, opportunistic preferences, namely for complying with plan targets. In that case they might have speculated that a mid- and long-term decrease in prisoners resulting from the application of workday credits would have led to a downward adjustment of the amount of economic tasks and projects that would have had to be carried out in subsequent periods. With the prisoners’ labour productivity increased through effective incentives, these targets would have been easier to reach. The resulting ‘foregone’ output thus might have been considered problematic by the dictator, but not by the GULAG directors, whose preference structure would have caused them externalising this effect.



basic traits of forced labour. This conclusion refers to both workday credits, and to the introduction of wages in late 1940s (see chapter by Borodkin and Ertz, in this volume). While these measures did not imply that the general status of prisoners as such got blurred, they suggest that economically the concept of exploitation of forced labour, based on means of coercion alone, proved generally inferior to the usage of civilian workforce throughout the entire period of Stalinism.

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