

The Second World War and Soviet accounting

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Abstract

This article examines the rapid changes to Soviet accounting practice during World War II. The adaptation of the pre-war accounting system was required to meet the extraordinary demands of a conflict that saw as much as 40 percent of the national population under German occupation. Many large production facilities were rapidly relocated out of the war zone to the Urals, Central Asia, and the Far East. Soviet wartime accounting was focused only on contributing to victory. Sometimes this meant establishing extremely simplified allocation procedures; sometimes this meant creating new accounts for enterprise assets temporarily under enemy control, and sometimes this meant extensive and thorough procedures to safeguard economic resources and military property. For scholars the war provided an example of how accounting can rapidly evolve to meet changing national priorities.

Keywords: *Accounting history; accounting in the USSR; Russian accounting; Russian accounting history; Russian accounting profession; Soviet accounting; Soviet history; World War II*

Introduction

This article examines the rapid evolution of the Soviet accounting system during World War II. The primary focus of this research is on the accelerated adaptation of existing accounting standards, procedures, and methods under the most extreme wartime conditions imaginable. The motivation for examining the wartime

accounting of the victorious Soviet Union is justified by the fact that Soviet accounting may have had an important role in helping the Soviet Union to win the war. A recent and well-received history of the Soviet Union in World War II has been written by Bellamy (2007). In this book Bellamy (2007, p.470), says that the Soviet Union should have, using “all the normal rules”, collapsed and lost the war. Thus, it seems that Hitler should have won. The overall situation was indeed that bad for the Soviet Union. How and why did the Soviet Union defeat Hitler, if it seems he should have won? The fact that the Soviet Union did not collapse is rightly credited to the countless acts of selfless personal heroism on the part of the citizens and soldiers of the Soviet Union, and the successful extreme measures taken by the leadership of the Soviet Union to motivate its citizens and soldiers to the most extraordinary levels of economic and military effort. This article is about a subset of the extreme economic measures taken by the Soviet Union in order to help win a war that was all but lost. Furthermore, this article is about the accounting changes and adaptations taken when a modern state is attacked by a powerful, disciplined, and resourceful adversary and compelled to take maximum emergency measures.

The authors pay close attention to the war-time realignment of Soviet accounting and the many adjustments of the accounting process that were made in order to quickly satisfy the ever-changing demands of extraordinary wartime circumstances. The primary effort of the country's leadership aimed first to ensure the national survival of the Soviet Union. Then, as soon as the Soviet Union had successfully avoided a quick checkmate, the Soviet focus was immediately placed on total and absolute victory and the liberation of conquered territories.

The story of the Soviet victory in World War II is in part a case study of total economic effort energized by the single-minded Soviet administration. Stalin and his leadership team chose to adapt as necessary in order to achieve victory. This total willingness to change and adapt quickly in the all-important economic theater of war can seem to be in contrast to contemporary times in Russia. Today major accounting change is occurring for different reasons in Russia and with different results. Some international observers of the contemporary post-Soviet Russian accounting transition sometimes seem to express frustration at the pace and the results of accounting change in Russia. If these observers and commentators on today's Russian accounting transition took the time to study carefully Soviet accounting in World War II, they might more quickly understand a fundamental truth about Russian accounting change that was true in World War II and remains true today. This simple and straightforward truth is that Russian accounting institutions, policies, procedures, and methodologies adapt to the environment, but only in ways that Russians and the Russian government find useful and acceptable. Rarely will an accounting institution, policy, procedure, or methodology be imported from outside Russia without modification. It is an

unambiguous truth to Russian accounting leaders that foreign accounting institutions, procedures, polices, and methodologies simply must be adapted to the unique conditions of Russia. This conclusion is consistent with the research findings of Sarikas and Djatej (2005, p.63).

Despite long-standing interest in the economics of the Soviet Union during World War II, the role of Soviet financial accounting throughout that period has received limited attention from researchers both in the Soviet Union (Russia) and in the West. This phenomenon is attributed to both the scarcity and the reliability of primary sources and research materials. Professor James Millar (1980, p.106) has characterized Soviet economic and accounting data available as “no more than a paragraph or two for the transition from the late 1930s to the early 1950s”. However, following the break up of the Soviet Union and opening up of Russia’s archives, new information has emerged. This information has made possible new scholarly research on issues related to the Soviet economic policies during the war, including the subject of accounting. Furthermore, during the Fiftieth Anniversary of the Soviet Victory in 1995, veterans and other surviving witnesses provided their own accounts about the process of accounting and accounting issues during the war. Testimonies of these veterans also occurred during the times of “glasnost”. These testimonies are not likely to be influenced by political, ideological or “party” interests, as would have likely happened during Soviet times. It is a contribution of this article that it has incorporated newly available information from the sources mentioned earlier.

The remainder of this article is organized as follows. The next section discusses the difficult economic position faced by the Soviet Union during World War II. It clarifies the significance of the desperate and heroic efforts, including accounting changes, of the Soviet Union during the war. The third section of the article reviews the introduction of simplified transactions as the Soviet Union dealt with the consequences of a rapidly advancing enemy invasion. This is because the relocation of significant economic assets eastward, out of the path of the advancing German army, resulted in unique accounting challenges. The fourth section of the article introduces the new accounting techniques that were implemented to best utilize existing accounting resources in an economy straining to maximize military production. The fifth section of the article presents the adaptation of wartime Soviet financial reports to changing circumstances. The sixth section of the article explores developments in the Soviet systems of auditing and taxation during the war. The seventh section of the article covers certain special topics of interest, including lend-lease, fraud, and other wartime accounting issues. The eighth and final section is a conclusion that sums up the contribution of this article to the literature and provides some suggestions for further research.

The next section examines the Soviet Union’s economic position in the early months of the war. This was a significant time in the conflict because it was early

in the war when the Soviet Union deliberately chose to go beyond normal wartime measures by widely implementing the most extreme measures. Perhaps no other nation was so well positioned to take such extreme measures.

The Soviet economic position early in the war

The German military advance was rapid after the German invasion of Russia began on 22 June 1941. German forces quickly destroyed many Soviet Army units and occupied a considerable part of the Soviet Union. In Ziemke and Bauer's (1987, p.39) history of the conflict between Hitler's Germany and the Soviet Union, they state that the US military attaché in Moscow reported on 10 October 1941 that the end of Russian resistance was not far away. Even earlier, in September 1941, the British government similarly feared a Russian collapse. Interestingly, Ziemke and Bauer comment that at this point in time, October 1941, as bad as the Soviet situation looked to the western allies and the Germans, it was actually worse. They explain that four months of war and territorial loss had very drastically reduced Soviet productive capacity.

Harrison (2005, p.153) and Bellamy (2007, p.471) who cites Harrison and relies on his work, both indicate that in this October 1941 crisis of survival, the Soviet leadership took emergency extreme measures that in effect made everyone personally responsible, under pain of death, for doing their duty, maintaining positive morale, and in no way giving aid or comfort to the enemy. Soldiers who accepted capture rather than fight to the death knew their families were vulnerable to punishment. Information about the severity of recent defeats was suppressed. One measure taken to limit the circulation of eye-witness information about recent Soviet defeats was to prohibit refugees from entering Moscow or Leningrad.

While the Soviet Union faced the grave military crisis in October 1941 discussed earlier, the most severe wartime crisis for the Soviet Union came in 1942. Harrison (2005, p.155), an economist, states that, "It should be considered surprising that under the pressure of deep invasion and devastating military setbacks, the Soviet war effort did not completely unravel in 1942". According to Bellamy (2007, p. 272) the Soviet Union should have collapsed in 1942 because, according to Harrison's (2005, p.138) economic data, the productivity of the German economy in 1942 exceeded the war-damaged Soviet economy by about 50 percent. The Soviet Union surmounted all of its difficulties in 1942 and the entire war by heroism, sacrifice and the extreme military and economic measures taken by the Soviet leadership. The radical economic measures taken by the Soviet government included all manner of steps taken to expedite desired forms of economic activity. These steps included the accounting actions that are discussed in the remainder of this article. Many emergency wartime accounting actions were crude and *ad hoc*,

but they should be viewed as one part of the national effort that resulted in Soviet victory.

A review of the dimensions of the Soviet economic losses to German military activity highlights the desperate situation of the Soviet Union in 1942. Kravchenko (1970, pp.123–5) reports that the German occupation of the Soviet Union at its maximum included 40 percent of the population, 32 percent of the total pre-war labor force and 33 percent of all state enterprises of the Soviet Union. Due to the rapid German conquest of the industrial areas of the USSR, on 27 July 1941 the Soviet government and the Communist party passed a resolution requiring the evacuation of the remaining industrial assets from the European part of the Soviet Union to the Urals, Central Asia or the Far East (Arutyunyan, 1970, p.45). During the early stages of the war, over 1500 industrial enterprises and more than 10m Soviet citizens were evacuated to the East (Istoriya Sotsialisticheskoi Ekonomiki SSSR [History of Socialist Economy of the USSR], 1978, Vol.5, p.172). The effort involved in the evacuation of productive assets to the Urals and Siberia put a strain on available resources. This was because productive economic assets had to be shut down before they were relocated, and because the relocation of major industrial assets itself absorbed additional resources. As a result, by the end of the 1941, the Soviet GNP fell by one third (Harrison, 1996, p.33). However, the ruthless authoritarian system, and the patriotic enthusiasm of people and their sacrifices under the slogan “Everything for the front, all for victory” helped the Soviet Union to avoid a total collapse.

During the war, the Soviet Union faced chronic shortages of raw materials and resources. These shortages placed great stress on the national economy and put a significant strain on the finances of the USSR. Soviet leaders wanted to limit uncontrolled printing of the national currency during the war for fear of uncontrolled inflation (Allakhverdyan, 1966, pp.109–15). However, money was still printed at accelerated speed in order to finance the war. As stated by Voznesensky (1948, pp.75–6), eventually Soviet authorities had to face the crisis because there were more rubles in circulation during the war than were needed. To control spiraling inflation Soviet authorities implemented an unusually strict price control system. Control of raw materials, semi-finished products and product components was accomplished with strict bookkeeping and with overlapping responsibility in extreme cases. Sometimes individual accountants were held to be responsible for assets, with severe punishment for failure to see that the assets were used only as ordered (Novodvorskii, 1985, p.24). However, these drastic measures did not stop inflation and, eventually, monetary stability during the war had to be sacrificed to the paramount aim of maximum production for the war effort.

Later, monetary reform was needed to reestablish monetary stability after the military emergency had passed. Berliner (1950, p.238) comments that during the war, national decision-making became fundamentally a problem of choice.

The choice was usually among means, but also often among ends. Trade-offs had to be made between quality and quantity, between using workers in military production and conscripting them into combat units. Accounting and respective public institutions in the Soviet Union also had to adjust to these limitations of the war and the national decision-making process. If accountants were drafted in to the Soviet Army, procedures had to be simplified so that new accountants, including many women, could cope with their duties as they learned accounting on the job.

The intensity of the war efforts necessitated fundamental structural changes in the Soviet Ministry of Finance. Prior to the war, the People's Commissariat for Finances (Ministry of Finance) played a key role in establishing, implementing and reviewing Soviet economic, fiscal and taxation policies. In addition, the cooperation of various Soviet ministries, including the Soviet Central Bank, and the Ministry of Finance provided the tools necessary to deal with the national needs for banking, accounting, financial and economic reporting. However, starting in 1941, the Ministry of Finance underwent structural changes and by the end of 1942, had a new organizational structure finalized that was suitable for wartime finance (Kudrin, 2002, Vol.3, pp.324–5). Thus, the new Commissariat for Finances incorporated several additional departments including the department in charge of financial accounting, reporting and economic statistics (Kudrin, 2002, Vol.3, pp.324–5). Throughout the following years, these departments became instrumental in redesigning and converting existing Soviet accounting rules into a new system which was needed to meet the growing requirements of the war.

Introduction of simplified transactions

Along with administrative and structural changes at the Ministry of Finance, the principles of Soviet financial accounting also underwent significant adjustments in order to adapt to war conditions (Ustinyuk, 1985, p.14). At the beginning of the war, Soviet fiscal officials had to focus on the reporting and accounting for all the expenses generated by the evacuation of assets and human resources to the Asian part of the USSR (Kashaev & Shein, 1985, p.16). The chaotic evacuation of all manner of industrial assets to the east of the country created significant difficulties in conducting financial transactions between enterprises and their suppliers (Kudrin, 2002, Vol.3, p.214). In addition, communication and the flow of financial resources between the Gosbank (Soviet Central Bank) and budgetary organizations were disrupted (Kudrin, 2002, Vol.3, p.214). Because the extreme measures of the Soviet administration maximized the number of individuals responsible for protecting assets, it became important, for example, for accountants and bookkeepers to control the safety of evacuated industrial assets by maintaining extraordinarily strict recordkeeping. A Soviet soldier could be shot on

the spot if he could not produce his weapon or other military property. Similarly, a wartime Soviet accountant needed to maintain total documented accountability for everything he or she was responsible for, or risk possible execution for failure to do their wartime job properly. Supervisors were neither kind nor easy, as they had to look out for themselves. Thus many individuals had their lives at risk in order to ensure positive control of the same assets. These measures improved accountability and security for economic resources. The record keeping task itself presented significant challenges because accountants also had the burden of accounting for the inventory and assets left behind and under German control in the occupied territories (Novodvorskii, 1985, p.23).

The structure of payments and related documentation including purchase orders, invoices, payment confirmation, payment requests, and the balance of payments was also significantly impaired by the war. To deal with these challenges Soviet authorities resorted to old pre-war Soviet practices. Different forms of “innovative accounting” characterized the Soviet systems before the war, especially the accounting practices in the Soviet transportation network. However, during the war, Soviet “innovative accounting” was utilized to its fullest. For example, if enterprises did not attach invoices or payments requests to shipped goods then these shipments were re-classified as “un-invoiced shipped merchandise awaiting payments” (Kudrin, 2002, Vol.3, pp.214–15). Another example of wartime problems involved the somewhat typical case of one enterprise paying for merchandise, but never receiving the merchandise because the supplier reallocated or redirected these shipments elsewhere at the last moment. Usually, this problem occurred when a supplier was responding to some more urgent war needs and, thus, had altered the destination of the goods. In these types of situations, several payments to suppliers for the same merchandise became a common occurrence even though the merchandise had never been delivered.

Sometimes on many important railroad junctions and stations, thousands of loaded railcars with unknown origins and unidentified final destinations accumulated (Kudrin, 2002, Vol.3, pp.214–15). This unacceptable situation required action. In order to accelerate the movement of “undocumented” materials and goods, and to expedite financial transactions, the Soviet government embraced several measures. Professor Narinskii who worked as an accountant during the war and managed bookkeeping and accounting for a large enterprise was evacuated to the east has provided examples of some of these emergency measures. According to his personal account, he was required to document every piece of equipment loaded on each railroad car in multiple inventory sheets and registers (Narinskii, 1985, p.32). Multiple copies meant an increased likelihood of the goods arriving at their targeted destination. Also, multiple copies increased the likelihood of an accountant being able to satisfy some angry supervisor looking for someone to punish. Thus, the culture of repression and fear in the Soviet Union was merely

extended to accounting in order to ensure that the accounting process was performed efficiently and with maximum documentation. Everyone involved was personally responsible with their lives at risk, with reasonability not being an issue. Thus, all individuals involved in the evacuation process including train engineers, general help, accountants, and others were designated as “materially responsible” individuals. These so-called “materially responsible” people included ordinary bookkeepers or others trying to maintain some shipping or merchandise records under extraordinary circumstances. At the point of destination, another group of “materially responsible” bookkeepers had to match all merchandise to accompanied registers and inventory sheets (Narinskii, 1985, p.32). These bookkeepers were required to report to supervising accountants and controllers on a regular basis. According to “the regime of socialist property during the war”, these bookkeepers were vulnerable to harsh punishment for any alleged mistakes or any alleged criminal activities (Narinskii, 1985, p.32).

Soviet authorities introduced new and simplified techniques to solve the problem of unaccounted payments and transactions that had taken place in the past between evacuated enterprises and economic entities left in the occupied territories. Furthermore, in order to simplify or, even, defer the recordings for these payments, the Ministry of Finance introduced certain new accounts including: “Goods and services allocated to evacuated enterprises”; “Goods and services allocated to enterprises remaining on the occupied territories and staying idle”; “Disputed liabilities risen due to the war”; “Loans of the Federal Bank as collateral for the shipped goods to the evacuated enterprises”; “Loans of State Bank as collateral for the shipped goods to enterprises left in the occupied regions and ceased to exist” (Kashaev & Shein, 1985, p.17). When Russian territory was liberated by the Red Army and an enterprise resumed operations, accountants were allowed to use specialized accounts such as “Liabilities deferred until special instructions”, “Bank loans payable deferred until special instructions” (loans incurred before the war), “Notes payable until special instructions”, and so on, in order to quickly resume the orderly flow of accounting information (Kashaev & Shein, 1985, p.17).

In this simplified world, assets were carefully documented and looked after. Depreciation accounting was not an important issue. Liabilities remained on the books for the duration of the war without a thought of interest accrual. A Soviet wartime accountant wanted to maintain total control of all assets under his authority, with any irregularities documented and approved. Assets and liabilities were all important. The balance sheet maintained its place as the most important financial statement throughout the war. Profit and loss issues were simply not very relevant, especially if production budgets were met. The next section discusses new accounting techniques that became commonplace during the war as the Soviet Union attempted to meet its accounting needs with fewer and fewer seasoned professionals available.

New accounting techniques

Economic hardships during the war directly affected the accounting profession as a whole. As the labor resources declined, the best possible utilization of each worker available became more and more important. As all efforts were focused on the production of planes, tanks, ships and shells, everything that was “not directly productive” in terms of the war effort, such as office and accountancy work, became secondary areas of interest (Singer, 1944, p.63). To satisfy these primary objectives, most of the industrial enterprises heavily exploited principles of the so-called “boiler [pot] accounting” (Mazdorov, 1972, p.159). “Boiler accounting” first appeared in early 1930s following the introduction of the standard cost system in the USSR. By the end of the war, the vast majority of Soviet enterprises utilized this system. Boiler accounting often meant different things to different accountants during different times of the war. It was fundamentally the use of estimation techniques as a substitute for orderly bookkeeping and accounting for the proper costs of production. Error checking procedures were frequently non-existent. The products of accounting work were reviewed from a viewpoint of identifying bottlenecks to production. Procedural correctness was not a wartime priority. Materiality reached new limits of tolerance as quick and dirty estimates often became mainstream. These estimation techniques were very acceptable in most cases. However, the authorities were always concerned about such procedures being used to hide fraud or sabotage.

The principles of “boiler accounting” allowed Soviet accountants to bypass norms and regulations. Under the rules of “boiler accounting”, the enterprise might simply add up all the expenditures at the end of the period without any classification or itemization of accounts. This was done to approximate the cost of goods of batch orders (Mazdorov, 1972, p.159). In addition, under “boiler accounting”, Soviet accountants often accepted inaccurate and irrelevant allocations of indirect costs. Furthermore, in order to simplify the calculation of the costs for some items, Soviet accountants utilized the so-called “coefficient method” (Kondrakov, 2004, p.551). This method was applied in metallurgical, military and other industries where common costs were allocated to different products. At the heart of this method was the use of a unique coefficient to allocate a portion of the total cost of production to specific products. In peacetime this coefficient was calculated on the basis of cost drivers or other known and measurable relationships. During the war many such coefficients were employed that were not the result of formal calculations. Instead they were working estimates approved for wartime use. Sometimes these wartime coefficients represented only the educated guesswork of higher authorities. In other cases, wartime special coefficients were old coefficients that had been accurate at some time and place in the past, but were still nonetheless considered to be reliable enough for current use. An example of

the wartime use of a special coefficient found in the literature is an approximated monetary value for the Cost of Goods of a specific product calculated by multiplying the appropriate special coefficient for that product by the total production costs (Kondrakov, 2004, p.551). According to the “coefficient method”, accounting for subsidiary and supplemental expenses could not be conducted separately. Instead, all expenditures were totaled and then allocated (Kondrakov, 2004, p.551). The “coefficient method” was also applied to estimate the cost of individual items produced (Novodvorskii, 1985, p.23). In small and mid-size enterprises most of the expenses were simply totaled without any breakdown or itemization (Novodvorskii, 1985, p.23).

Some industries adopted a kind of direct costing in which only labor expense and the procurement cost of raw materials were accounted for. Since iron and other metals constituted the primary components for the production of armaments and other military equipment, large and mid-size enterprises applied new and stricter rules when accounting for iron ore, copper, aluminum, lead and other metals and metal substitutes. Therefore, some factories used tightly controlled limits and a quotation system to account for metal production and allocation. Some versions of this system assumed that only the budgeted amount of metal was used for production, since with all the security controls and standardized production procedures there were unlikely to be any significant variances in the use of metal inputs. Thus the cost of production for the batch products was routinely accounted for by simply accounting for the labor cost allocated to each respective batch (Mazdorov, 1972, pp.157–8).

Soviet bookkeepers also utilized other simplified accounting methods and cost control in order to categorize itemized expenditures. Thus, the classification of overhead and non-operating expenses had been abolished in some cases with such costs reclassified as operating expenses. In small and medium level factories, expenses for separate shops were assigned to one general expense account. In this case, in order to calculate total operating expenses accountants used a simple averaging method (Mazdorov, 1972, pp.157–8).

Shortages of food and materials required significant changes in the financial system of the Soviet Union during the war. Instead of using a double-entry financial accounting system to control and document the proper distribution of food and other rationed items, ration cards were issued and summary journal entries were made. Thus ration cards eliminated many requirements for recording monetary transactions for food staples and commercial goods (Kornilov, 1994, p.191). Control of food staples was still necessary and these items were accounted for in separate accounting systems that used such non-monetary measures as kilograms or liters of commodities. As a result, accounting procedures for these commodities became cumbersome and a major administrative nuisance. Professor Yaroslav Sokolov of St Petersburg State University, a leading expert on Russian

accounting, as a teenager lived through the harsh winters of the Leningrad blockade. He has dedicated a significant part of his research to the history of Soviet Accounting to the principles of accounting during the war. Among other issues, he has also focused on accounting for items distributed only to individuals with ration cards. Items that were subject to overuse by consumers were regulated by rationing. Since bread was the primary dietary staple, the authorities initially utilized ration cards for the distribution of bread. According to Sokolov (Sokolov, 1985, p.35). Soviet accountants had to embrace a method of accounting for rationed commodities using physical quantities of these commodities. This accounting for physical quantities in the Soviet Union was labeled “off-balance accounting” and utilized its own double-entry system. Since the “off-balance accounting method” did not use monetary values to record balances, the Soviet government introduced six new accounts: “Issuance of Ration Card” (liability), “Ration Cards Inventory” (asset), “Circulation of Cards” (liability), “Return of Cards” (liability), “Disposition of Cards” or “Cards Destined for Destruction” (asset), and “Shortage of Cards” (asset). Soviet authorities also introduced strict control and accountability measures for retail stores. Shopkeepers and sales personnel were required to account to higher organs and audit bureaus for all sales of merchandise using non-monetary measurements such as kilograms, meters, liters, and so on. Complex and arbitrary measurements involving stubs and receipts for individual ration card were used to account for groceries and other commercial merchandise (Kornilov, 1994, p.191).

Soviet bookkeepers and accountants had no choice but to use these complex procedures to compile reports on sales of rationed merchandise. These modifications for trade and retail operations also required significant bookkeeping resources and increased the need for bookkeepers and accountants. Soviet fiscal managers hoped that the introduction of ration cards would, at least, reduce the inflation rate and provide overall monetary stability. However, the introduction of the ration cards system could not stop inflation and it did not result in the prevention of monetary payment for merchandise purchased utilizing ration cards.

Much of the previous discussion provided details on the addition of new accounts during World War II. It is important in that regard to note that the Soviet Union had a standardized chart of accounts that was mandatory. There was always a set of regulations and interpretations that required certain journal entries for certain transactions. Typically a Soviet Union accountant’s work had always been largely restricted to concerns about how to follow locally implemented regulations, with a strong focus on correct balances in the individual accounts. Financial statement formats were also strictly controlled with the regulations linked to the mandatory standardized chart of accounts. However, during the war economic conditions gave rise to new approaches for aggregating accounts and for new sections of the Soviet balance sheet. The next section discusses certain new

aggregating approaches for accounts and sections of the Soviet balance sheet that appeared during the war.

New forms of presentation in financial reports

Rules and regulations on how accounts were aggregated and presented changed during the war. Furthermore, there were changes to how financial reports were compiled and adaptations on how information was presented in the financial statements. A new aggregation of accounts came about when it was decided that all expenses and losses reflecting war-related activities would be listed in a new comprehensive account called “Expenses and Losses” (Mazdorov, 1972, p.157). This account recognized all expenses related to blackouts, construction of anti-tank trenches, supplies for self-defense units, support for air-defense and anti-aircraft units, construction of shelters, and so on (Mazdorov, 1972, p.157). Wages and salaries for irregulars, reconnaissance groups, fresh draftees and individuals mobilized for the military and defense activities were also debited to this account (Kashaev & Shein, 1985, p.17). Expenditures for evacuated assets and their subsequent reinstallation, compensation for unrecoverable assets and personal belongings lost during the war, restoration of destroyed homes and factories, compensation for idle time due to the extended air-raids of the Luftwaffe were also debited to this account (Mazdorov, 1972, p.158). Expenses related to transportation, warehousing, packaging were reclassified as “operating losses”. Fixed assets destroyed during the war were recorded separately and under many different categories. If the government expropriated a company’s assets or reduced equity for war needs, these actions were reflected in the “owner’s equity” accounts.

In order to more precisely present information on the amount of damages caused by the war, on 1 April 1942 a special balance sheet section titled Section “D” was introduced (Sokolova, 2005). In the balance sheets of the evacuated enterprises the current and long-term assets left behind or still in transit were recorded in the new Section “D” (Sokolova, 2005). Liabilities and long-term debt that became irrelevant due to war conditions were also recorded in the Section “D”. Restored and rebuilt enterprises in liberated territories used section “D” to account for short-term assets, property, plant and equipment destroyed, looted and lost during the war (Novodvorskii, 1985, p.23).

On 15 October 1943 Narkomfin and the Central Statistical Department at the Gosplan approved new additions to the Section “D” of the balance sheet. Thereafter, Soviet wartime balance sheets included certain new itemizations including “Assets Not Evacuated” or “Raw Materials Not Evacuated”, “Finished Goods Not Evacuated”, “Destroyed Or Damaged Assets”, “Partially Damaged Assets”, “Destroyed And Enemy-Looted Assets”, and “Assets Evacuated, But Not Arrived To The Destination”, and so on (Kashaev & Shein, 1985, p.16). On 1

January 1945, all amounts itemized in Section “D” of the balance sheet were transferred to section “A” of the balance sheet (Novodvorskii, 1985, p.23). The itemized information about enterprise war damage presented in Section “D” (and later Section “A”) allowed the Soviet authorities to prepare a summary of the total material damages inflicted by the war.

Section “D” was also used during most of the war when the balance sheet did not reconcile due to an imbalance in total debits and credits. In this case a charge for the “differences between debit and credit balances” was presented (Kashaev & Shein, 1985, p.16). Furthermore, when general ledgers, accounting journals, documentation and all the accounting paperwork for evacuated enterprises were lost, management was ordered by higher authorities to conduct a complete physical inventory. Based on this data, a new balance sheet was created. The new data was compared to the balance sheet used before the evacuation if it was available. Any monetary difference that was discovered had to be recorded in the account called “Difference between liabilities and assets resulting from the war” (Kashaev & Shein, 1985, p.16; Mazdorov, 1972, p.158; Novodvorskii, 1985, p.23). This account was also utilized in order to record other unknown losses. If the cause of those losses were discovered later, then these losses were reallocated back to their respective accounts.

In the Soviet Union, documentation and paperwork were always more of a way of life than in the West. Signatures and seals of an Enterprise Director and the Enterprise Chief Accountant were included on all manner of documents including even the menus of state-owned restaurants. All of these documents were subject to audit by the state. The nature and focus of state auditing changed during the war, as did the nature and focus of taxation in the Soviet Union. The next section of this article discusses auditing and taxation in the Soviet Union during World War II.

Auditing and taxation

Soviet systems of auditing and taxation were also redesigned to satisfy war needs. The role and the function of the Soviet Directorate for Control and Auditing underwent some very fundamental changes. Its structure was reorganized by reducing the number of auditing and other subordinated departments in its central office. The auditing directorate focused on ensuring that all possible resources were allocated for the USSR's war budget. Enterprises could also be audited for compliance with all war directives. Consequently, the responsibilities of all-union and republican controllers were expanded. During the war controllers could penalize organizations and individuals for causing economic and financial damage to the state. Penalties and fines were imposed after controllers from the Directorate for Control and Auditing at the Narkomat of Finances and controllers on the republican level thoroughly investigated the matters. In addition, during the

investigation stage and after the imposition of any penalty, the controllers had to keep informed all-union and republican Narkomats of Finances (Ministry of Finance) about the progress of each individual case (Kudrin, 2005, Vol.3, p.273).

In the Soviet Union all enterprises of consequence were owned by the state. Taxation of enterprises was one mechanism in which resources were remitted to the state for use elsewhere according to state priorities. Individuals were also taxed. On 3 July 1941 the Soviet government added the so-called “war surtax” both to the agriculture tax and the personal income tax (Kudrin, 2002). The agricultural surtax was 100 percent across the board, with exemptions for rural families with a member serving in the armed forces (Arkhipkin, 2005). The personal income tax surcharge was differentiated by social category, total monthly wages, and by the type of service the individual was rendering to the war effort (Arkhipkin, 2005). However, these changes to the levies proved to be inadequate in that insufficient additional revenues were generated. Also, these surcharges did not affect those not liable for either the agricultural or the income tax. In consideration of these facts and for other reasons, the Soviet surtax system was replaced by a special war tax on 1 January 1942. This new tax was essentially a poll tax on all men and women over 18 years of age (except servicemen and certain families eligible for government relief status), graduated according to income for urban workers and salaried officials and by geographical region for the agricultural population (“Nalogooblozhenie v Rossii v period Velikoy Otetchestvennoi Voiny 1941god”, 2005). Those eligible for military service, but not mobilized, were subject to an additional tax. Few exemptions were permitted. After the war the tax remained in place until it was abolished on January 1, 1946 (“Nalogooblozhenie v Rossii v period Velikoy Otetchestvennoi Voiny 1941god”, 2005). In November 1941 another special tax was introduced that taxed bachelors and all single-member and childless families (“Nalogooblozhenie v Rossii v period Velikoy Otetchestvennoi Voiny 1941god”, 2005). This tax did not generate the revenues anticipated, nonetheless, after the war, the tax remained in place.

Lend-lease, fraud and other war-time accounting issues

Lend-lease is used in this article as a term to generally describe Allied economic and military aid in the form of fuel, food, clothing, boots, metal, aircraft, tanks, trucks, and other items provided to the Soviet Union by the USA and the UK. The term originated in the period between the beginning of the European war in 1939, and the entry of the USA into the war late in 1941. During this period, the US government wanted to provide aid to the Allied side, but was constrained by the fact that the US population wanted to stay out of the war, and by the fact that giving military aid directly to the Allies would be considered an act of war. The technical solution was to lend or lease military items to the Allies. This legal

nicety allowed the USA to transfer military goods to the Allies without technically giving war materials directly to the Allies.

Our interest in lend-lease concerns the accounting for it by the Soviet Union and the economic and military significance of this aid to the Soviet Union. Harrison (2005, p.155) has estimated that lend-lease aid to the Soviet Union amounted to five percent of Soviet GNP in 1942, and 10 percent of Soviet GNP for war years subsequent to 1942. Harrison does not say the Soviet Union would have collapsed in 1942 without lend-lease aid, he only states that the Soviet Union would have been, “nearer” to the point of collapse without it. Accounting for the delivery, reception, and recording of “lend-lease” assets provided by the West during the war has received only limited attention from Russian and western scholars. This limited attention is attributed to several reasons. According to Harvey (1970, p.82) until recently the vast majority of primary sources in Russia concerning the allied contribution to the Soviet war effort have not been accessible to the research community. During the Cold War, and under the influence of official Soviet ideology, Soviet scholarship consistently minimized or ignored the value of the allied aid to the Soviet Union (Munting, 1984, pp.495–6).

Some revisionist western historians placed responsibility for the Cold War on the USA because it ended lend-lease on 11 May 1945 (Herring, 1969, p.93). This one-sided viewpoint prevented Russian researchers from developing an objective assessment of the subject. However, recently several well-researched works about the vital role of “lend-lease” to the Soviet Union’s war effort have been published (Munting, 1984, pp. 505–6). Boris Sokolov of the Moscow State University of Social Science has authored one of the most comprehensive research inquiries about the role of “lend-lease”. In his book, *The Truth About the Great Patriotic War*, he dedicated an entire chapter to the issues of lend-lease, (Sokolov, 1989). The chapter is titled “The Role of the Lend-Lease in the Soviet War Efforts 1941–1945”. In his investigation of the relevant Soviet accounting records, Sokolov uncovered massive overstatements and understatements, to include deliberate fraud of accounting reports for military hardware and war supplies delivered by the Allies during the war. He employed research methods that utilized data from official records. The newly discovered availability of lend-lease documents has helped to verify the fraud uncovered by Sokolov. For example, by comparing accounting records of the total metric tons of metal rail manufactured in the Soviet Union to estimates of the total metric tons of metal rail installed in the Soviet Union, Sokolov concluded that more than half of the metal rail was supplied by the USA (Sokolov, 1989). Thus, Sokolov questioned the reliability of some of the Soviet accounting records.

According to another prominent scholar, James Millar, (1980, p.112) the data presented in Soviet financial statements during the war was misleading at best. Thus, in the columns for itemized expenditures in the financial statements for all

five years of the war, the category of the “war expenditures” did not incorporate data related to transportation and conversion of plants, purchases of new assets, labor expenses, financing of new projects, subsidies to state enterprises, and so on (Millar, 1980, p.112). Millar based his arguments on claims of postwar Soviet official historians who insisted that expenditures for war absorbed 55 percent of the Soviet national income in 1942. In contrast, in 1940 expenditures for war absorbed only 15 percent of national income (Istoriya Velikoy Otechestvennoy Voiny Sovetskogo Soyuza.1941–1945, 1965, p.46).

Long before the perestroika and glasnost, others also began questioning the validity of Soviet accounting records regarding lend-lease aid. In fact, in 1942, German intelligence services began reporting that the Soviets were intentionally distorting accounting and statistical data (Schellenberg, 1956, p.274). According to Boris Sokolov (Sokolov, 1989) this phenomenon was attributed to the inability of Soviet production capacity to fulfill imposed quantities of the central plan. Exploiting weak auditing and control systems, management overestimated the quantities produced or supplied defective hardware. In 1946, the Soviet Air Force chief Aleksandr Novikov was arrested and interrogated for accepting defective planes and other military hardware during the war (Gribanov, 1998). At his trial Novikov argued that the Soviet leadership at the highest level knew about accounting fraud and deception. However, this argument did not improve his chances for early pardon (Sokolov, 1989). The Soviets were unable to combat accounting fraud during the war, and, according to Sokolov, even if they had attempted to introduce significant improvements, this move would have disrupted the war effort and disorganized the management of military enterprises (Sokolov, 1989). Overall, lend-lease records are essential to the task of estimating Soviet economic production during the war. In addition, issues of accounting for lend-lease assets and the interaction of American and Soviet registers and inventory records can provide important information concerning Soviet accounting during World War II.

To the Soviet Union, victory over Germany meant more than the end of hostilities. It meant that long-occupied Soviet territories would be recovered, and that the economic resources of these territories could be reincorporated into the Soviet economy. However, because of war damage, and especially because of the retreating German Army’s “scorched earth” policy, the reconstruction necessary to return the newly liberated territories to productivity would generate a new set of accounting issues.

Conclusion

During World War II, the Soviet Union seemed close to collapse in both 1941 and 1942. Credible experts such as Bellamy and Harrison cited in this article believe

that under normal conditions, the Soviet Union should have collapsed in 1942. If the Soviet Union should have collapsed, it becomes very significant to explore why the Soviet Union did not collapse. The short answer is that the Soviet Union took extreme measures to adapt to the crisis and that these extreme measures included many adaptations of its very standardized accounting and reporting system. Estimation procedures not permitted in peacetime become common. Record keeping and documentation continued to be important because it became even more vital that assets be protected from loss and used only for the purposes that were directed. Just as a Soviet soldier could be disciplined or executed for losing his rifle, a Soviet accountant or bookkeeper, or other “materially responsible” person could face extreme punishment if assets under his or her control disappeared, were allocated for the wrong purpose, or were simply unaccounted for. Extreme and unreasonable demands placed on individual accountants and the Soviet Accounting profession in general produced extreme and heroic efforts to meet those demands. In an environment where few excuses were accepted, many found a way to meet the extreme performance levels demanded by a totalitarian regime determined to win at all costs. The demands of the war led to dramatic changes in principles of accounting, the introduction of new charts of accounts and adjustments in taxes and tax rates. Recognizing the successes of the wartime accounting system, some of the newly created mechanisms remained after the war, and the government used them on its postwar reconstruction projects.

To enhance the effectiveness, reliability and consistency of financial reporting, during the war, significant measures were taken to simplify operational accounting procedures (Kashaev & Shein, 1985, p.15). These measures included adaptation of the formats of financial reports. Accounting for the procurement of raw materials, inventories, transactions with suppliers and customers were also modified. There were simplifications of the allocation procedures for management and service expenses. Accounting was in general centralized and consolidated because many experienced accountants were taken to fight in the front lines. With fewer experienced accountants available, the number of accounts and account categories in the national chart of accounts were sharply reduced. For example, the number of itemized expenses in individual shops was reduced from 69 to 21 (Atlas, 1944, p.59).

Soviet financial accounting significantly complemented military efforts by rapidly reorganizing its methods and structure to the needs of the front lines and the rear. During the war, the Soviet accounting system embraced the entire economic system of the country. As a “complicated state-prescribed system”, accounting embraced every economic unit all the way to the bottom (Campbell, 1958, pp.77–8). During the war, the Soviet government significantly modified the objectives of accounting. Prior to the war, the state viewed accounting as essential tool for traditional ends, such as observation and recording of financial transactions. During the war, the role of accounting and accountants was significantly elevated.

As a result, it enabled enterprises to obtain viable economic results and to develop methods that would more efficiently exploit material, labor and financial resources. Furthermore, after the majority of economic activities were relocated to the east of the country, the government used accounting information to manage both individual enterprises and the national economy, and to assist in implementing the policies of the leadership to achieve victory.

How the Soviet Union achieved victory in World War II is an important research topic. The role of accounting in the Soviet victory seems to be in need of further research. For example, the most spectacular Soviet economic achievements of the war, such as out-producing Germany in tanks and artillery have not been linked to any accounting adaptations. Also, a study of changes to the accounting profession itself because of the war would be valuable. It is known that prior to the war, most Soviet accountants were men. During the war the accounting profession changed significantly in that most accountants were women. The accounting profession in Russia remains largely female to the present day.

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