

Soviet Economic Growth, Military Buildup, and Diplomatic Relations: A Historical Analysis

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Abstract:

This article explores the economic development, arms race, and diplomatic relations of the Soviet Union in the 1920s and 1930s. At the beginning of the 20th century, the Soviet Union experienced revolution and civil war, and its economy almost collapsed, but it later achieved recovery through the New Economic Policy (NEP). In the mid-1920s, after Stalin came to power, the Soviet Union began implementing a five-year plan with the goal of rapid industrialization and agricultural collectivization. During this period, the Soviet economy underwent fundamental changes. In terms of military affairs, the Soviet Union accelerated its military construction to respond to domestic and international security threats, and began to participate in the international arms race. In diplomacy, the Soviet Union attempted to expand its influence and export revolution. The international hostile situation has intensified its confrontation with the West.

Keywords: Economy, NEP, Arms Race, Trade.

1. Introduction

The Soviet Union was a unique country in the history of mankind. "The Union of the Soviet Socialist Republics" is a country with no geographic or national features. How this former superpower prospered, developed, and declined; How its economy operates. This is an important issue for people.

In this paper, we will explore several questions about the Soviet Union.

1. What effect did the New Economic Policy (NEP) have on the Soviet Union's economy and society, and what were its short-term and long-term impacts on Soviet prosperity and development?
2. In what ways did the arms race influence Soviet

domestic policies and international strategies, and how did it challenge the economic sustainability of the Soviet Union?

3. How did the economic and strategic decisions made during the arms race affect the Soviet Union's global political and economic position?

4. What were the key factors that contributed to the rise and decline of the Soviet Union, and how did events such as the New Economic Policy and the arms race play roles in shaping its trajectory?

1.1 Historical context

The Soviet Union, officially called the USSR (USSR), is a unique entity in the history of mankind., charac-

terized by its lack of geographical or ethnic homogeneity. Its rise, development, and eventual decline present a complex narrative that offers significant insights into the economic and political dynamics of the 20th century. This literature review examines crucial elements such as the New Economic Policy (NEP), the arms race, and their impacts on Soviet economic and political strategies.

1.2 The New Economic Policy (NEP)

The NEP was a strategic shift introduced by Lenin in 1921, marking a significant departure from the previous wartime communist policies. The goal of the NEP was to revive the Soviet economy by reintroducing limited market mechanisms and preserving state control of key industries. This period saw a remarkable recovery in agricultural production, reaching 92% of pre-war levels by 1926, and an increase in foreign investment, exemplified by ventures like Armand Hammer's and Henry Ford's engagements in the Soviet market (Soviet Union).

Lenin's rationale behind NEP was rooted in pragmatism, recognizing that a purely state-controlled economy was unsustainable in the early stages of socialism in Russia. The policy allowed for private enterprise and small-scale capitalism under strict state oversight, termed "state capitalism." Despite its successes, NEP faced opposition within the Communist Party, particularly from figures like Trotsky, who feared it might pave the way for capitalism to re-emerge (Soviet Union).

1.3 Political Struggles and Economic Reforms

The introduction of NEP was not just an economic maneuver but also a response to significant political pressures. The failure of wartime communist policies led to widespread dissatisfaction among farmers and workers, culminating in events like the Kronstadt Rebellion. These uprisings underscored the need for economic reforms to stabilize the Soviet regime and alleviate social tensions (Soviet Union).

The internal political landscape of the Soviet Union during this period was marked by intense factional struggles. Lenin's declining health and eventual death in 1924 precipitated a power struggle among the Bolshevik leaders. Stalin emerged victorious, systematically eliminating his rivals through political maneuvering, most notably Trotsky. This consolidation of power set the stage for Stalin's later policies, which diverged significantly from Lenin's economic strategies (Soviet Union).

1.4 The Arms Race and Its Economic Impact

The Cold War arms race had far-reaching effects on the Soviet economy. The relentless pursuit of military parity

with the United States imposed severe strains on the Soviet economic system. Resources were heavily diverted towards defense spending at the expense of consumer goods and other sectors. This focus on military capabilities was a double-edged sword, enhancing Soviet strategic positioning while simultaneously undermining economic sustainability (Soviet Union).

The economic burden of the arms race was becoming more and more unsustainable, which eventually led to the collapse of the Soviet Union. The extensive allocation of resources to military endeavors created inefficiencies and exacerbated existing economic challenges, ultimately playing a critical role in the dissolution of the USSR (Soviet Union).

1.5 Conclusion

The Soviet Union's history shows how complex it is to run a socialist country in a global context. The New Economic Policy was a practical way of managing the economy, balancing socialist ideals with necessary capitalist elements to ensure survival and growth. However, the political infighting and the pressures of the arms race highlight the inherent difficulties in maintaining such a vast and ideologically driven state. These elements collectively shaped the trajectory of the Soviet Union, influencing both its domestic policies and its role in the global arena.

2. Political Struggle and Economical Reform of the Soviet Russia in 1920s and early 1930s

2.1 Wartime Communism Policy

During the Russian Revolution and the Civil War, the Soviet Union under Lenin's leadership was confronted with unprecedented economic and political challenges. When the Civil War broke out in 1918, the Soviet government had to implement wartime communist policies. The core of this policy is to achieve centralized control over the economy through coercive measures to ensure the supply of military supplies and maintain social order. Private enterprises have been confiscated, agricultural products have been forcibly expropriated, and the level of government involvement in the economy has unprecedentedly intensified. However, although these measures helped the survival of the Soviet regime during the war, they also led to widespread social dissatisfaction and resistance, especially in farmers. Surplus Appropriation System had greatly dampened the enthusiasm of farmers for production. As a result, widespread famine has occurred in rural areas. This famine has hit over 30 million people in the Volga Basin

and large areas of Ukraine. According to contemporary sources, it caused 5.2 million deaths. The loss was not only reflected by materials. They also greatly magnified the depth of losses suffered by the Soviet Union in World War I. Therefore, the comprehensive reconstruction of the post-war economy had to wait until 1923, and the national economy did not recover to prewar levels until the late 1920s. Wartime communist policies brought disastrous results to farmers. Some of farmers expressed their dissatisfaction to the Soviet government:

“...These situations made the farmers extremely strongly oppose the Soviet regime, but they still endured and took away their food, but they did not provide them with anything, not even tar, without which food could not be produced. Special attention should be paid to the supply of laboring farmers, otherwise farmers will not believe any friendly words.”---A farmer¹

Lenin fully acknowledged their mistakes, and he said “This is the true truth. Soviet regimes often cannot provide essential goods to farmers, which is often due to poorly organized manual labor.”²

The failure of wartime communist policies not only caused resistance from farmers, but also expressed dissatisfaction through the actions of the Bolshevik base: soldiers and workers. In the spring of 1921, a strike broke out in Petrograd to protest against the material privileges of party members and officials, and Zinoviev’s suppression of striking workers led to an increasing scale of the strike. This strike further led to the occurrence of the Kronstadt incident. Although Kronstadt Navy eventually fell apart, it was a great shock for the Soviet government because they had been instrumental in the February Revolution and October Revolution.

The Kronstadt Uprising failed and brought about changes in the economy, for, in the words of the time, “concessions to capitalism cannot be allowed to undermine the political and social foundations of the Soviet government.”³

The Kronstadt Navy called for a free trade and market regime in order to eradicate hunger. Moreover, they hoped the new government to apply democracy. Only one of the existing Kronstadt documents deals with economic issues, dated March 1, 1921. It demonstrates the peculiar combination of wartime communism and emerging new

economic policies, constructed in a contradictory way on the basis of peasant trade freedom and the ban of wage labour: “an immediate disbanding of the food brigades . . . complete freedom for the peasantry, to be allowed to do with the land and the produce as he pleases . . . permission for small industries on the basis of his own labor, no wage labor”⁴ This fortress of the October Revolution ended with the slogan “Soviet without Bolsheviks”. The Soviet leadership had to deal with this situation. On March 1, 1921, when Soviet President Kalinin delivered a speech to about 16000 people gathered at Kronstadt Yakinaya Square, he was unable to convince sailors and local residents that this anti communist transformation was futile. The effect of the uprising was to accelerate the process of introducing a market economy.

Frequent strikes and uprisings shocked Lenin and finally made him determined to carry out reforms. He summarized the wartime communist policy in this way: “We plan to adjust the production and distribution of products in a small peasant country according to communist principles by directly issuing orders from the proletarian state. Real life has shown us wrong.”⁵

2.2 New Economic Policy (NEP)

The New Economic Policy (NEP) was put forward by Lenin at its meeting on March 8, 1921, which indicated that the war Communism had withdrawn and adjusted. NEP was carried out with the goal of boosting economy, boosting output and easing the stress on society. It also gave the Soviet Union an easy time to develop its economy. Lenin put forward that Russian socialism building at the beginning period, because of the weakness of the material base, it will only restrain the development of economy. For this reason, it is possible to refer to capitalism, for example, a market-based system for the production of goods and services to loosen control of SMEs based on the government’s control of big SOEs, so that they can release their energy and build up their economy. Another aspect is that there is a fresh recognition of the peasant class. He thinks that only by giving peasants the right to free land, which they depend on to survive, and by using food taxation, will they be motivated to build socialism. Lenin said that: “The fundamental and decisive task of the new economic policy for elderly care is to integrate the new economy we are building with the millions of farmers who rely on it

1 Vladimir Ilyich Lenin. “*Complete Works of Lenin*”(Volume 39) (Beijing: People’s Publishing House, 2020), 349

2 Vladimir Ilyich Lenin. “*Complete Works of Lenin*”(Volume 39) (Beijing: People’s Publishing House, 2020), 349

3 Tamás Krausz. “*Reconstructing Lenin*” (New York: Monthly Review Press, 2015), 365

4 See A. Slepikov, “*K tretyey godovshchine kronstadtskogo myatezha*,” *Bolsevik* (1924): 1, 45.

5 Vladimir Ilyich Lenin. “*Complete Works of Lenin*” (Volume 31)(Beijing: People’s Publishing House, 2020) <https://www.marxists.org/chinese/lenin-cworks/31/005.htm>

for their livelihoods.”⁶

Lenin’s proposal faced great resistance, and he had to resign in order to force all representatives to agree with his views. There was a heated debate within the party regarding the direction of economic policies, particularly the disagreement between Lenin and Trotsky on economic policies. Interestingly, Trotsky was the person who came up with the idea of NEP at first. But now he was afraid of capitalism to come back. Trotsky advocated for the rapid realization of socialist industrialization, while Lenin was more inclined to achieve economic recovery while maintaining political control. Some party members and workers also opposed NEP, because they believed that NEP betrays socialism. And Lenin himself acknowledged that NEP is not socialism. And he never regarded the New Economic Policy as a long-term plan, believing that it was only a necessary compromise for the Soviet regime in the short term. In “*Draft outline on the role and tasks of trade unions under the conditions of the new economic policy*”, Lenin claimed that:

“The New Economic Policy has brought about significant changes in the situation of the proletariat, and therefore also in the situation of trade unions. The reason for these changes is that the Communist Party and the Soviet Union put in place specific transitional measures in their overall transformation from capitalist to socialist. In many aspects, they have adopted different methods from before, using so-called “new circuitous methods” to seize some positions, retreat, and be more prepared to turn back into an attack on capitalism. For example, now not only is free trade and capitalism regulated by the state allowed but also developed, while on the other hand, state-owned enterprises are also switching to so-called economic accounting, which is actually to a considerable extent implementing commercial and capitalist principles.”⁷

Why Lenin adopted the production mode and economic policies he had always opposed is an interesting question. From my perspective, at the beginning, Lenin acted

6 Vladimir Ilyich Lenin. “*Complete Works of Lenin*” (Volume 42)(Beijing: People’s Publishing House, 2020)

<https://www.marxists.org/chinese/lenin-cworks/42/048.htm>

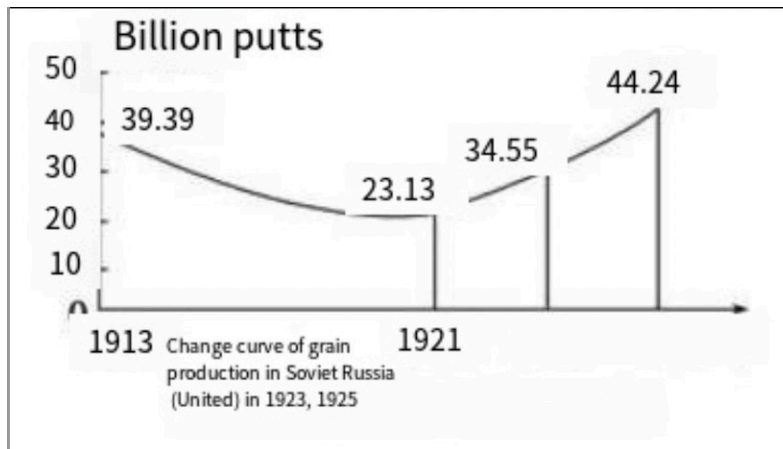
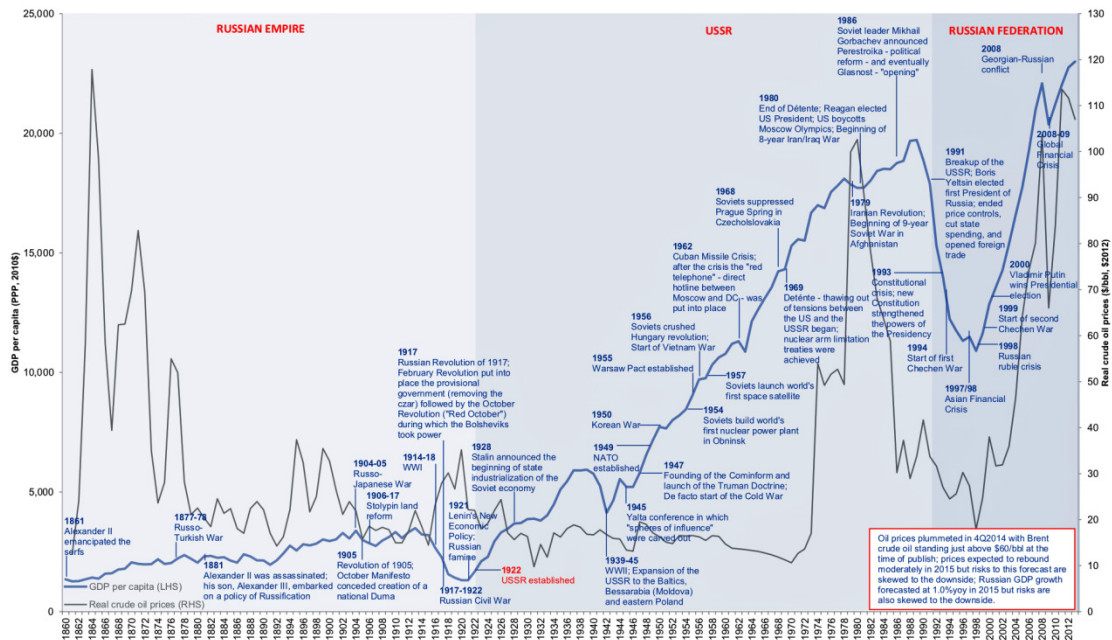
7 Vladimir Ilyich Lenin. “*Complete Works of Lenin*” (Volume 42)(Beijing: People’s Publishing House, 2020)

<https://www.marxists.org/chinese/lenin-cworks/42/075.htm>

according to the logic that he could never win and could never hope to govern, so at that time he was incendiary. He needed to degrade and destroy the existing order. But when he suddenly came to power, he had to restore order, and he carried forward in a more determined manner the kind of military Industrial Council or Ludendorff war system that he had so vehemently denounced. A hundred years later it is clear to us that this reflected “The Horse-shoe theory”, which means the transition of left and right, but in Lenin’s day many of his followers and the audience for his propaganda, including the peasants, could not have clearly anticipated it.

The introduction of the new economy policy has achieved tremendous success very soon. Farm output recovered faster than expected, and in 1926 farm output was 92 percent of its pre-war level. Peasants’ real income has also been raised, and their farm instruments have been upgraded. In the fall of 1922, the new Soviet Union began to sell grain to the West in order to make money. In 1924, there were more than one hundred million poods (Пуд) was a major measure in Tsarist Russia. for the first time, a sign of a successful New Economic Policy. It is one of the features of Soviet Russia in the New Economic Policy era that Lenin paid much attention to, thinking that it can promote rapid development of national economy and development of productive forces. Armand Hammer, for example, was an American businessman who had made significant investments in Soviet Russia at the time. Hammer also convinced the determined anti-Communist Henry Ford to set up shop in Russia. Ford took Hammer’s suggestion and went on to work as a distributor of Ford automobiles and tractors in Soviet Russia. When Ford was the first to do so, other firms followed suit. After that, Old Ford set up a car plant in Russia. Though he had been against the Bolshevik cause all along, he was very pleased with the work. Due to Lenin’s New Economic Policy, the Soviet Union made sure that the profits and profits of foreign traders were high. But NEP is far from being a full capitalist system. Lenin said NEP is “state capitalism”, that is to say, from the industrial point of view, all the major plants, mines, and businesses related to the life line of the country remain under the control of the country. SMEs, and those which cannot be set up by the government for the time being, may conduct private operations.

History of Russian economic growth: GDP per capita and oil prices



The concept “state capitalism” had an immediate political significance. The Soviet country favored organised mass investment and market ownership instead of unregulated private ownership, and the uncontrolled chaos of the petty bourgeoisie (twenty-five million little farms instead of one big one!). The rationale behind this is that “state-supervised capitalism” is the only way to achieve an “orderly withdrawal”, and that only state capitalism can substitute for the bureaucracy of war communism, which has created chaos. Certainly Lenin referred to it as “withdrawal” as opposed to “theory”; more specifically, it referred to a move away from the practical experience of wartime communism. Like his description of the transition phase’s situation as a “bourgeois nation”, he talked about a state-capitalist system that did not produce a bourgeoisie as a result of the NEP, provided that (and others) “state-owned

companies are largely placed on a commercial-capitalistic footing.” This is the real ‘retreat’ of socialism in theory, as the demand orientation has been taken over by profit margins. But from a political point of view, it was a step forward, for the political basis of the political system, which was a union between workers and farmers, was stable. During the New Economic Policy in Soviet Russia, economic relaxation did not translate to political leniency, as Lenin likened the situation to a tactical retreat requiring steadfast discipline to avoid collapse. Despite evolving into a de facto one-party state after the civil war, internal party conflicts emerged over crucial decisions. Lenin, known for his intolerance of dissent before the revolution, grappled with disagreements during the early years of Bolshevik rule, including debates over seizing power in October (challenged by Zinoviev), signing the Brest-Li-

tovsk Treaty with Germany (opposed by Bukharin and ‘left Communists’), and the use of Tsarist officers in the Red Army (advocated by Trotsky, resisted by Stalin).

By the end of 1920, factional struggle had not just become established practice within the party but had also generated an issue of principle. One of them, known as the Democratic Centralists, argued for greater democracy in the Party, whereas Lenin believed that it had gone overboard. Had the Democratic Centralists been victorious, it would have been able to provide an umbrella for a number of organized factions trying to get behind specific programmes, whose results would be determined by a ballot that everyone agreed was legally binding – but this diversity was contrary to the majority of rank and file Bolsheviks, who preferred decisive over democracy, and who were inclined to look down on high-level disputes. Anyway, Lenin wasn’t going to allow it. During the Tenth Party Congress, he brazenly mobilized his supporters – Stalin and Political Commissar Molotov – to pass a resolution ‘On party unity’ that banned factions. That gave Lenin’s party a handy tool to deal with its adversaries, and they could now be charged with breaking the prohibition of factionalism. It is wrong, however, to conclude that this decision has indeed led to the disappearance of the Partys. Indeed, during the 1920’s, they prospered more than ever – until Stalin stopped them.⁸

2.3 Bolshevik party struggle

In May 1922, Lenin suffered his first stroke and was partially paralyzed on the right side, leading to a reduction in government affairs. From late May to early October, Lenin’s health deteriorated. Feeling that his life was coming to an end, Lenin was very worried about the issue of his successor. Lenin began to express concerns about Stalin’s increasing power in his later years, although he attempted to balance the forces between different factions through political adjustments. He evaluated Stalin in this way:

“Stalin was very rude, and we can tolerate that defect when we treat him as Communists, but we cannot tolerate him as a General Secretary. So, I recommend you all think of a method to get rid of Stalin’s post and replace him with another General Secretary.”⁹

On Jan. 21, 1924, Lenin died in Gorky village of a stroke. Back then, many Bolsheviks would have been surprised to see Stalin placed as Trotsky’s equal in political status. Stalin did not possess any of the qualities usually attached to excellent leadership by the Bolsheviks. He wasn’t a charming man, he wasn’t a good speaker, he wasn’t a great Marxist theorist like Lenin and Trotsky. He wasn’t a war hero, he wasn’t a decent working-class kid, he wasn’t even an intellectual. The image of Nikolai Sukhanov was that he was a “gray blur” – a fine behind-the-scenes politician, a specialist in the inner workings of the Party, but one with no individual distinction. It was generally assumed that Zinoviev rather than Stalin was the dominant member of the Politburo triumvirate. But Lenin was more likely to appreciate Stalin’s abilities, for Stalin had been

⁸ Sheila Fitzpatrick. “*The Shortest History of The Soviet Union*” (New York: Columbia University Press), 53--54

⁹ Vladimir Ilyich Lenin. “*Complete Works of Lenin*” (Volume 43) (Beijing: People’s Publishing House, 2020)

<https://www.marxists.org/chinese/lenin-cworks/43/096.htm>

his right hand in the internal party struggle of 1920 – 1. Following a succession of political battles, Stalin became supreme. However, his reputation was not enough at that time, so Trotsky’s internal opponents began to criticize him and his New Economic Policy.

Trotsky claimed that during Lenin’s leadership, the Party meticulously understood and controlled policies, recognizing their significance, limits, and their role in advancing the proletariat. However, under Stalin’s rule, there was a departure from these Leninist methods. This deviation allowed capitalist forces to grow unchecked, leading to a situation akin to the primitive accumulation of capitalism. The result was the emergence of a wealthy peasant class among millions of small farmers. Furthermore, this uncontrolled capitalist development worsened the social composition of party members and cadres. In essence, the ruling team under Stalin implemented economic policies that moved towards capitalism, which contrasted sharply with the earlier rigorous control and clear understanding of policies during Lenin’s time. In the conflict between Stalin and Trotsky, particularly regarding industrialization strategies and policies towards peasants, there was controversy. But there was little difference between them on those key points: they were all pro-industrialism and had little compassion for the farmers.

However, the direct political conflict between Stalin and Trotsky still remained irreconcilable. Stalin’s mother once asked, ‘I don’t understand why my son can’t share power with Trotsky?’ The reason is actually very simple. Stalin and Trotsky are not the same type of people at all. One is biased towards theory, and the other is biased towards practical combat. Before the October Revolution, Trotsky spent most of his time writing articles and conducting theoretical research abroad. Stalin had been engaged in practical work domestically. Different experiences have shaped their different temperaments. Trotsky was like a glamorous intellectual, while Stalin formed a silent and rough man. The two of them looked down on each other from their first meeting. Trotsky’s evaluation of Stalin was “the most outstanding mediocrity in our party,”¹⁰ while Stalin’s evaluation of Trotsky was “a beautiful but useless person.”¹¹ They had completely different views on the future development of Soviet Union, and no one could accept someone they didn’t like or look down upon. They

¹⁰ Lev Davidovich Trotsky. “*My Life: An Attempt at an Autobiography*” (Beijing: China Social Science Press, 2003) https://www.marxists.org/chinese/trotsky/1929/trotsky_1929book42.htm

¹¹ Joseph Vissarionovich Stalin. “*Complete Works of Stalin*” (Volume 13) (Beijing: People’s Publishing House, 1956), 259

devoted their entire lives to a career that they believed was wrong. This was the root of the conflict between Stalin and Trotsky. Before his death, Lenin realized the huge danger of a split between them, but he no longer had the time or the ability to engage in such a split. After his death, there was a huge power vacuum left behind, and beside the vacuum were two people who were at odds with each other but held high positions of power. Such a power struggle was destined to have a cruel process and a tragic ending.

Let's take a look at who were in the top echelons of the Soviet Union now, Stalin, Zinoviev, Kamenev, Bukharin, and Trotsky. Stalin had a clear idea of struggle from the beginning, and he never fought alone. He always did a good job in combat, which Trotsky was not equipped with. Trotsky had a high regard for himself and looked down upon others. As a result, he had poor social connections within the party. Stalin first allied with Zinoviev and Kamenev. Trotsky also "helped" here. After Lenin's death, he wrote two articles criticizing Zinoviev and Kamenev, which led to their cooperation with Stalin. None of them could have defeated Trotsky alone, but if they united, the situation would have been very different. They joined forces to attack and published articles claiming that Trotskyism was not true Leninism. Of course, both them differ from classical Marxism in some ways. Stalin even said that the party's task was to bury Trotskyism, and Trotsky quickly implemented the dismissal of the Chairman of the Revolutionary Military Committee. Next, Stalin united with Bukharin to confront Zinoviev and Kamenev. If Trotsky had united Zinoviev and Kamenev at this time, he still had a chance of winning, but Trotsky did nothing. By the time he joined forces with Zinoviev and Kamenev a year later, they had no power left. As expected, they lost completely and were all expelled from the party. There were only Stalin and Bukharin left. Bukharin was completely unable to compete with Stalin, but he later insisted on openly confronting Stalin on the issue of grain collection. Soon, he was also expelled from the Politburo. Thus, Stalin defeated all opponents through political struggle, and the era of Stalin came. Although Lenin had won the Communist Party in the October Political Revolution, the necessary economic revolution in accordance with Marxism had not been carried out. Stalin would later emerge as its leader.

2.4 Transition from NEP to Forced Collectivization

Russia has been in a state of politics and economy for a long time. Since 1853, Russia has been defeated in the Crimean War, Russell-Japan War and First World War.

Russia was called "the weakest link in imperialism". The Five Years' Civil War resulted in a complete breakdown in economic and social conditions. The Rouble fell from 2: 1 to 1, 200: 1. In the postwar period, the industrial production was reduced to one seventh of its pre-war level, while the value of agriculture was reduced to one-third. The Soviet Union's outside conditions were not good either. In 1927, England broke away from the Communist International, broke off its trade treaties, and declared war on the Comintern at the Six Nations Foreign Ministers Conference. Under this kind of turmoil, both inside and outside, Stalin guided the Soviet Union to construct a powerful socialist nation. He was acutely aware of the instability of the post-War World War. The key to Soviet Union's success in the next big battle was just one thing — quickly! He suggested that "if you're slow, you'll be left behind, and if you're late, you'll be hit."

Stalin said: "We're 50 to 100 years behind the advanced nations, and we need to do it in 10 years." Even though it was said in 1931, the outbreak of the Russo-German War in 1941 was ten years late.

In order to make sure that Soviet socialist system was pure and its economy was developed rapidly, Stalin decided to abandon New Economic Policy and take other measures to improve its economy.

But by the end of the 1920's, the NEP's limits and inconsistencies were beginning to show itself in Soviet leadership. The NEP, though successful in stabilising the economic situation and easing the immediate aftermath of the war, has also brought in factors which are perceived to be inconsistent with the objectives of socialism. The emergence of the kulaks (wealthier peasants) and freedmen (private traders and small business owners) represented a significant deviation from the Marxist vision of a classless society. These groups were perceived as threats to the consolidation of socialist power and the ideological purity of the Soviet state.

The NEP, according to Stalin and his followers, has achieved its short-term goal of restoring the economy, but is currently impeding the advancement of socialism. The NEP, they argue, has given rise to excessive power in the capitalist sector and thus threatens the prospects for socialism. This perspective was driven by both ideological commitment to Marxist principles and practical concerns about the control and stability of the state. The NEP's relatively liberal economy has been perceived to promote inequality and generate economic interdependence, which may weaken the Soviet Union's center of power.

2.5 The First Five-Year Plan and NEP Finished

In 1928, Stalin issued his Five-Year Plan, which meant

that he had decisively changed his NEP policy towards a more concentrated and controlled economic system. The first objective of the Five-Year Plan was to speed up industrial development and collective farming so as to remove the remnants of privately owned businesses and strengthen the socialist economy.

The “Great Break” of 1929 – 1932, as Stalin called it, consisted of three main programs: forced industrialization by means of the Five-Year Plans, organized by the National Planning Authority, agriculture collectivization, and the Cultural Revolution. The latter, in particular, is intended to strengthen the Communist Party’s authority, and by means of so called outside threats, encourage its followers, such as the Communist Party’s youth and city laborers, to wage war on their enemies from within.

The goal of Stalin’s First Five-Year Plan was to radically change the Soviet Union from agricultural to industrial power. Rapid industrialization was at the forefront, requiring significant investments in heavy industries such as steel, coal, and machinery production. It gives priority to developing an industry that is critical to sustainable economic growth and to strengthen its military capacity.

2.6 Impact on Agriculture and Rural Society -- Collectivization

The Bolsheviks had long thought that collective farming was better than small scale, as it was only on vast tracts of land that they could use large-scale farm machines. Furthermore, the collectivization could make peasants become proletarian. However, in the New Economic Policy era, it is considered that converting peasants into such views will be a lengthy and difficult process. In 1928, only 1.2 percent of the planting land was planted in the village, while the state owned land occupied 1.5 percent. The rest of the land was cultivated by peasants themselves. The First Five Year Plan did not foresee a large scale shift towards collective farming in his term of office; indeed, the difficult issue of fast industrialisation would appear to be enough for the regime to deal with in the next few years, with no fundamental agricultural restructuring required.

The greatest characteristic of Soviet agriculture in this period was collectivization. This initiative sought to replace individual peasant holdings with collective farms (kolkhozes) and state farms (sovkhozes). The aim was twofold: to improve farm production by mechanisation, and to secure a steady supply of grain and other resources to sustain the growing industry. The economic policy of Stalin emphasized the importance of industrialization and not of agriculture. Collective farming is in fact a second objective, which may be taken into consideration when confronted with predictable opposition from peasants. In

the Soviet Union Communist Party, however, it was the need for class struggle, not prudence, that prevailed in the argument. In 1928, the peasants fought with the Soviet Union for the price of farm produce. While it was possible for the government to increase its buying price, economists said it was only by “squeezing” the peasants. It was a rare visit for Stalin, who left the capital, to Siberia to get a first-hand look at the situation. His report was that the Kulaks had tried to increase their prices by keeping their grain at the market, which was a form of political sabotage. More precisely, the Kulaks wished to keep more corn on the farm, whereas the Bolsheviks were willing to give it to urban laborers so that they could advance their industrialization. Then there was the introduction of a new system of punishment for stockpiling, which led to more opposition from peasants. The Stalinist took the form of an ideology hostile to the Kulaks as a political instrument, and took harsh measures to attain its economic and political objectives. In the winter of 1929, a comprehensive group program was put into practice to resolve this issue, which was to turn the newly-created collective farms into the sole legitimate supplier of foodstuffs, while the country was the sole buyer. We’ll solve the Kulaks’ problem completely by driving them out of the village. This led to extensive opposition by farmers who were afraid they would lose their land and self-government. This increased the suspicion of the government towards farmers, making all the issues in the countryside more likely to be viewed as a protest by farmers and not by any other objective factor, which gave rise to widespread famine.

The immediate impact of forced collectivization on agriculture and rural society was catastrophic. The disruption of traditional farming practices and the seizure of livestock and grain led to a significant drop in agricultural productivity. Many peasants slaughtered their animals rather than surrender them to the collective farms, resulting in a severe reduction in the number of livestock.

The forced collectivization and dekulakization campaigns also led to widespread social upheaval. Traditional rural communities were dismantled, and the social fabric of rural life was torn apart. Peasants who resisted collectivization faced brutal reprisals, including execution, imprisonment, and deportation. The fear and uncertainty generated by these campaigns led to a climate of suspicion and distrust within rural communities.

The collectivization of agriculture was a failure. It caused decades of regression in Soviet agriculture, alienated farmers, and made food shortages a common phenomenon in rural areas. The most tragic consequence of forced collectivization was the widespread famine that ensued, particularly in Ukraine, the Volga region, and Kazakhstan. The combination of reduced agricultural productivity,

harsh requisitioning policies, and poor planning led to a catastrophic food shortage. The famine, known as the Holodomor in Ukraine, resulted in the deaths of millions of people between 1932 and 1933. The exact number of casualties is debated, but estimates range from 4 to 7 million.

The famine was exacerbated by the state's refusal to acknowledge the crisis and its continued requisitioning of grain for export and urban supply. The ideological policy of forced collectivization ignored the actual situation of agricultural production and the interests of farmers, resulting in decreased productivity, food shortages and mass starvation. The Soviet Government denied that there was a famine and limited domestic and foreign assistance. This deliberate policy of ignoring the suffering of millions of people has led many historians to classify the Holodomor as a man-made famine and, in some cases, as an act of genocide.

2.7 The Industrialization Drive

The First Five Year Plan represented the Soviet Union's major efforts to modernize and industrialize its economy. The goal of this ambitious project is to speed up the development of heavy industrial production, particularly in the fields of mining, metallurgy and machinery. In 1929, when the First Five-Year Plan was adopted, industrialization was the most important task for the Russian government. From 1930 to 1937, the Heavy Industry Directorate, which controlled the process of industrialisation, was run by Sergo Ordzhonikidze, one of Stalin's strongest and most energetic leaders.

The First Five Year Plan will concentrate on steel, which will boost Ukrainian production capacity at its current capacity and create large scale new facilities, like Magnitogorsk in the south of the Ural Mountains. Tractor plants are also highly valued, not only due to the immediate need for collective farming (this has become even more pressing due to the fact that the peasants have killed their animals in the course of collectivisation), but also due to the easy conversion of these plants into tanks in the future. To liberate our nation from its reliance on foreign machines, we have made rapid progress in the field of machine tools. Although the government invested heavily in developing the textile sector under New Economic Policy, and there were many skilled workers in the textile sector, it fell into a difficult situation. According to Stalin, the Red Army will use steel instead of leather and fabric.

In the First Five Year Plan, all had been given up for metal. In fact, there has been such an underinvestment in coal, electricity, and railroads that there is always a risk of a lack of fuel and electricity, as well as a failure of transpor-

tation, which usually puts the steelworks at risk of being shut down. According to Gleb Krzhizhanovsky, an Old Bolshevik in charge of the State Planning Commission up to 1930, Stalin and Molotov had been too preoccupied with producing steel to overlook the fact that these factories depended on railway transport for raw materials and dependable sources of fuel, water, and power.

But in the initial Five Year Plan, it could be the nation's greatest challenge to organize and distribute. Like a decade before, in the time of war communism (failed and only temporarily), the government had virtually total control of the city's economic, distributive, and commerce, and that assumption was a lasting one. Furthermore, as a large part of peasants' farming has been collectivized, the old hybrid economy has been vanishing quickly.

The Soviet Union was confronted with the problem of lack of funds in the Five Year Plan. To advance the course of industrialization, the government must depend on low-cost labour. Large-scale industry projects like the Magnitogorsk smelting works have drawn inmates, driven out Kulak, and "disruptive" engineers from more wholesome regions. They were supervised by the GPU, and they joined forces with the Communist Party that had just been trained in order to create a new Soviet industrial system. The volunteers of the Young Communist Youth League were also active. They were considered to be the pioneers of "conquering the natural world" and building socialism in the wilderness. Their work was to industrialize and develop the economy of a nation, which sought to transform nature into productivity by means of collective work and technical advancement. The Nazis, on the other hand, urged them to reconnect with nature. It was an idealised culture and racism that aimed at restoring supposed ethnic supremacy by strengthening ethnic purity and traditional nature. Though they were all about altering nature, Russia's methods were more concerned with technology and society, whereas the Nazis were concerned with the reconstruction of cultures and nationalities.

Grouping is an important method for realizing industrial and modern development. Through the pressure on peasants to collective ownership, the government tried to free up a lot of labour for industry and city development. But the group's progress isn't always going well. The peasants are confronted with great economical and social stress, and the government's collectivization policy has caused severe protests and objections. Nonetheless, it eventually gave the Soviet Union enough food and materials to sustain its industrial development.

The First Five Year Plan also emphasizes the geographical and political choices. In deciding where to build plants and facilities, the authorities have to choose whether to build a new plant or to build an infrastructure in the Ural

Mountains. Although Siberia, Central Asia and Caucasus are regarded as a priority for growth, the emphasis remains on Russian and Ukrainian centers because of their defence requirements. Fierce regional rivalry (for example, the Ukrainian/Ural rivalry) usually results in a double-win – granting permission to build two separate plants, one per area, whereas the original intention was to create just one factor. In the Soviet Union's First Five Year Plan, geography and politics combined with ideology resulted in overambitious goals and higher investment in plant and facilities. That's one of the key elements in the Initial Five Year Plan's soaring targets and rising costs.

The First Five Year Plan is not only an economy and industry project, but also has brought about deep social transformation in the Soviet Union. Female employment has been greatly improved and has been an integral part of the female emancipation campaign - which is still far from being truly liberated, but it is still a progress. Millions of young peasants have moved out of the countryside to seek employment in the urban areas. The large scale migration from countryside to city affected the Soviet Union's society and economy.



The transformation of NEP into compulsory group and fast industrializing has far-reaching effects on politics as well. Stalin took advantage of this period of vigorous economic transition to strengthen his position and remove his political opponents. The Five-Year Plan and the movement of collectivization gave Stalin a way to assert his loyalty and repress dissent in the Communist Party as well as the wider community.

One of the most notable aspects of this period was the series of purges and show trials that targeted perceived enemies of the state. The Communist Party, the intelligentsia, the military leadership, and the common people were charged with the crimes of sabotage, anti-revolution, and so on. The Great Terror, which ended in the end of 1930, resulted in tens of thousands being killed or thrown into

labour camps.

These purges served multiple purposes. They removed any possible competitors and strengthened Stalin's grip on the party and the state apparatus, which was far more brutal than Lenin's factionalism, for he had employed a lot of terrorism, whereas Lenin dominated politics and organization. Even though there have been a few cleansings, they are much more moderate. It has also created an atmosphere of terror, which deters dissent and guarantees adherence to the government's policies. The show trials, which were widely publicised and put on display for the greatest publicity, were a testament to the government's resolve to eradicate and punish any opposition.

The political repression and cleansing had a far-reaching effect on Soviet society. Terror and doubt pervaded every social stratum, from the top Communist Party members to common people. The purges upset the operation of both the government and the industrial sector, with the removal of experienced and competent people and their replacement by less-competent but more faithful staff.

The atmosphere of fear also strangled intellectual and cultural life. Writers, artists, and academics must move through an uncertain environment, always on guard against the creation of works that might be considered anti-revolution or ideological wrong. The government's control over culture production intensified, with socialist realism becoming the predominant art and literature style, promoting an ideal and propagandistic image of Soviet life.

2.8 Long-Term Consequences

The transition from the NEP to forced collectivization and rapid industrialization had far-reaching consequences for the Soviet Union. While the policies achieved some of their economic objectives, the human and social costs were immense.

The Soviet Union has become a powerful industry that is able to rival the main capitalism. Building on the basis of the 1st Five-Year Plan, it was possible to develop industry and expand the army, which was critical in World War II. But the emphasis on heavy industrial production has always been detrimental to consumption and quality of life, which has resulted in a permanent imbalance in the economy.

The social turmoil brought about by the collectivization and industrialization transformed the Soviet Union. The collapse of the Kulak class and the enforced incorporation of farmers into collective farms changed the countryside, that turned farmers into proletarians. The purges and the suppression of politics created a culture of terror and submission that strangled creativity and critical thinking. The consolidation of Stalin's power had permanent polit-

ical consequences. The autocracy of Stalin's reign set a precedent for the centralized and oppressive governance that characterised most of Soviet history. The legacy of the purges and the culture of monitoring and suspicion remained in Soviet society long after Stalin's death.

The human cost of this transformation was enormous. Millions were killed by starvation, cleansing, and forced labour. The damage and disruption that such policies have inflicted on Soviet society is profound. The misery experienced by millions of common people is a sharp reminder of the human cost of fast and forced change in economy and society.

3. The economic impact of the arms race

In 1945, at the end of World War II, the Red Army was undoubtedly the most powerful land force in the world. The Great Patriotic War of 1941-45 was undoubtedly a testing ground for weapons. In contrast, no other country except the Soviet Union and Germany had such a brutal armored attrition war. As a result, the Soviet Union developed its own system of warfare, and it became the best way to demonstrate Soviet power throughout the Cold War.

Since the Red Army's armored forces were quantitatively and qualitatively superior to the NATO camp until the mid-1980s, so was the air force. Without tactic nuclear weapon, NATO has no hope of winning.¹²

Therefore, I will focus my research on nuclear weapons. First of all, nuclear weapons require not only strong economic support, but also advanced science and technology. Moreover, nuclear weapons are a new kind of weapon for both sides, and both sides stand on the same starting point. The nuclear race also indirectly contributed to the space race, which further brought about the technological revolution. In my chapter, I will explain how the nuclear arms race leads to economic growth.

3.1 How does the arms race affect the economy

In 1945, both the United States and the Soviet Union learned about nuclear weapons and their power. How to deliver nuclear weapons to the other side's territory remains a problem. At the time, the United States was the only country capable of nuclear deterrence. The first B29 rolled off the production line in 1943. It has a combat radius of 1,600 miles and a maximum payload of 9 tons. On August 6, 1945 Japan Time, the B29 dropped its first atomic bomb, proving its ability to possess and strike.¹³

¹² Simon Lunn "Tactical Nuclear Weapons and NATO" (Strategic Studies Institute, U.S. Army War College) P235-257

¹³ John T Correl "The Matterhorn Missions Air Force Magazine March" 2009, p62-p65

Although the Soviets quickly developed Figure 4 by mimicking the B29 cratering in Siberia, with the outbreak of the Korean War, both sides realized that bombers were not an effective means of strategic nuclear deterrence. The bomber was slow, poor in maneuverability, and easily intercepted. In the Korean War, the Soviet mig-15 and the American F-86 were the first mature generation of jet fighters after World War II to compete together. Unlike the F86, the mig-15 was designed to be an interceptor. As a result, the mig-15 was mounted with two 23 mm and one 37 mm cannon. Actual combat experience has shown that this combination of weapons has great power at an altitude of 10,000 meters. Oxygen is scarce at 10,000 meters. At that time, the 12.7 mm machine gun commonly used by the U.S. Army was far less lethal than the Soviet Union's large-caliber machine gun at low temperatures and thin air because of its small size and the oxidant content it carried. The maximum climb of the mig-15 is 50,000 feet, or nearly 15,000 meters. In the Mig Corridor over the Yalu River, the mighty American air Force faced its first real threat.¹⁴

After the Korean War, both sides realized that the use of strategic bombers for nuclear deterrence was not an effective means. Both sides need a more covert, fast and accurate nuclear delivery vehicle. Intercontinental missiles, rockets if not nuclear warheads, have become a new generation of deterrence. At the end of World War II in 1945, the United States, the United Kingdom, and the Soviet Union all sent various investigative teams into Germany in an attempt to explore and learn the unknown military secrets of the Third Reich. Among them, rocket technology is undoubtedly a point of interest to both sides, as well as nuclear weapons. In the fall of 1945, the United States began Operation Paperclip, rallying German scientists and their resources. Two of the most important were von Braun and Rudolf Hermann.¹⁵ Von Braun was involved in almost all of the early rocket research in the United States, and his most important achievement was the Saturn V launch vehicle that sent humans to the moon. Of course, the Soviet Union began a similar program. It is clear that both sides realize that rocket and missile technology, which is still in its infancy, will have incalculable potential in the future.

On October 22, 1946, at Stalin's behest, the NKVD transferred 6,000 captured German rocket project scientists to the Soviet Union. After a brief period of detention, Stalin

¹⁴ Ethan J. Johnson "MiG! 6 o'clock high! A history of the Design Bureau and an analysis of its aircrafts combats history" 2004, p53-p56

¹⁵ Tom Bower, "The Paperclip Conspiracy: The Hunt for the Nazi Scientists" (Boston: Little Brown and Company, 1987), 126

returned the men to East Germany in 1951.¹⁶ In the five years between the end of World War II and the outbreak of the Korean War, the United States had military bases in Western Europe, and the B-29s deployed on those bases were sufficient to threaten major Soviet cities. October 30, 1947 was an important date. At the Kapustin Yar test site near Stalingrad, the Soviets tested their first rocket: the R-1, modeled on the German V-2. The missile is not suitable for nuclear deterrence: its engine is only capable of delivering a one-ton warhead 256 miles away.¹⁷

The first few rocket tests didn't go well. The first major breakthrough came on August 21, 1957. The R-7, code-named SS-6 (Surface-to-Surface) by NATO, finally hit its target after three failures, becoming the world's first intercontinental missile (ICBM). On March 29, 1958, the R-7 delivered a warhead to a range thousands of miles away, demonstrating the feasibility of using intercontinental missiles to replace bombers for nuclear deterrence.

However, the Soviet Union never used the R-7 as an important part of its nuclear deterrent. Because of its unreliability, the Soviet Union soon retired it. However, as early as 1954, the Council of Ministers of the Soviet Union approved a proposal for the study of space problems. The resolution called for the use of an R-7 rocket in 1957-1958 to put an artificial Earth satellite of about 1,000 kg into orbit. At the end of 1956, scientists found it difficult to put a 1000KG payload into Earth orbit. But in the context of the space race, speed became the only metric. In order to win the honor of launching the first artificial Earth satellite, scientists reduced the weight of the satellite to 100KG, and the scientific task carried by the satellite itself was reduced to verifying the feasibility of observing and receiving satellite signals in orbit. The launch of the launch vehicle 8K71PS №M1-PS with the first artificial Earth satellite took place on October 4, 1957. It was also the fifth launch of the R-7 rocket. The rocket successfully placed the Sputnik satellite into an orbit with a perigee of 228KM and an apogee of 947KM with a period of 96.2 minutes.

The significance of winning the first satellite launch for a country is as follows:

1. Mankind has officially entered the space Age

16 Jeffrey S. Bolling, Georgetown University, *"From Red Wings to Red Stars Bombers, Intercontinental Ballistic Missiles and the Evolution of the Soviet Strategic Arsenal in the Early Cold War"* 2009-2010, p56-57

17 Michael J. Neufeld, *"The Rocket and the Reich"*, 282; Belyaev M. Yu., G.P. Anshakov *From the First Manned Mission into Space to the Permanently Manned Orbital Station 2021 P2*

2. Promote scientific and technological research
3. Strengthen national defense capabilities
4. Promote technological development
5. Boost national pride
6. Promote economic growth
7. Stimulate innovative industries¹⁸

With the advent of man-made Earth satellites, man could, for the first time, get a 3-D, complete view of his planet. Although Sputnik I could only give off a normal buzz, the first remote viewing took place in 1946. Between 1946 and 1962, Guided Missiles (BM) and Geophysics Rockets (GPMs) were used for long-range sensing. It gave researchers the chance to take the first small scale pictures of the Earth from high up in the sky, improve geographical and thematic charts, and for the first time monitor the seasonal variations of nature pictures. On the basis of analyzing the data acquired by BR and GPR, some advice is given to choose the optimal orbital height and observing cycle, and to observe the Earth's surface in the future. Scientists have acquired expertise in processing and interpretation of the earliest pictures of the universe that allow for cloud cover. The BR and GFR pictures don't include Earth's entire surface area. They have, however, been a major advance in developing new surveillance techniques and exploration techniques, selecting optimum GPS tracking parameters, as well as their spectrum and space resolution dependent on satellite height, MSC and OSS orbits. The initial MSC, OSS and AES surveys were carried out at an altitude of between 250 and 600 kilometres, with a high degree of detection capability. Another key characteristic of satellite images is that they are able to capture and transfer information quickly, as well as the ability to repeatedly explore the same region, thus enabling the dynamics of nature to be monitored and more closely analyzed in order to improve the analysis of interactions among nature's constituents, thus improving the ability to produce new global geographic and thematic maps. Therefore, it is possible to apply spatial information to geographical, natural and other earth-sciences. Farming plays an important role in the real world exploitation of satellite data, which calls for periodic surveys of farmland and timely reception of soil and crop conditions so that long term crop prospects can be established.¹⁹

The Soviet Union has changed from being a nation with 82% of its population to one in which most of its GNP is

18 Steve Garber *"Sputnik and The Dawn of the Space Age"* October 10, 2007, NASA History Web Curator

19 L. A. Vedeshina, * and D. A. Shapovalovb *"The First Scientific and Technical Experiments in Space EarthSciences"* (On the 60th Anniversary of Satellite Images of the Earth from Manned Spacecraft) 2022 p1689

derived from rural areas, to 78% of its GNP, with 40 to 45% of its GNP coming from manufacturing and associated sectors. The Soviet Union's Per capita GNP stood at

around \$300 in 1928, around \$600 in 1950, around \$850 in 1960, \$1, 250 in 1970, and around \$1, 500 by 1980. However, farming also plays an important role.

TABLE 1: SOVIET AGRICULTURAL PRODUCTION
(thousand metric tons)

Product	1951-55 Average	1956-60 Average	1961-65 Average	1966-70 Average	1971-75 Average	1976-80 Plan Average
Grain	88,500	121,300	130,300	167,600	181,500	215-220,000
Cotton(raw)	3,888	4,363	4,996	6,099	7,700	9,000
Sunflower seeds	2,456	3,672	5,068	6,389	5,971	7,600
Sugar beets	23,981	45,644	59,170	81,118	75,921	95- 98,000
Meat	5,665	7,854	9,320	11,583	14,050	15- 15,600
Milk	37,907	57,217	64,714	80,553	87,445	94- 96,000
Wool	226	317	362	398	441	n.a.
Eggs(million)	15,874	23,580	28,736	35,840	51,475	58- 61,000
Potatoes	69,337	88,258	81,628	94,813	89,737	n.a.
Vegetables	11,203	15,043	16,877	19,472	22,755	n.a.

Sources: Compiled from *Ekonomicheskaja Gazeta*, vol. 6 (1976), pp. 3-6; U.S. Department of Agriculture, *Agricultural Statistics of Eastern Europe and the Soviet Union 1950-70* (Washington, D.C.: U.S.D.A., 1973); U.S. Department of Agriculture, *The Agricultural Situation in the Soviet Union: Review of 1975 and Outlook for 1976*, no. 118 (Washington, D.C.: U.S.D.A. Economic Research Service, Foreign Agricultural Economic Report, April, 1976); David M. Schoonover, "New Soviet Plan Stresses Slower Livestock Gains," *Foreign Agriculture*, vol. 14, no. 3 (January 19, 1976), pp. 2-4, 12. n.a. = not available.

As you can see from this Table 1, agricultural production in the Soviet Union rose steadily in the decades after World War II.

There is no doubt that remote sensing observation plays an important role in increasing agricultural production. Under Khrushchev, one can be sure that the pursuit of agricultural policy was extensive and intensive in nature. On the one hand, Khrushchev is most often remembered for the movement he promoted with the Virgin Land Project as an example. While this plan was initially modest, it became less so over time. The program began in 1954 with the goal of expanding the sown area by 32 million acres by 1955. By 1960, however, 104 million acres had been added. In fact, between 1950 and 1971, the total sown area increased by 149 million acres, a considerable expansion of inputs.

On the other hand, one can see many of the changes of the Khrushchev era as leading to a more intensive pattern of resource use: a big improvement in the quality of farm managers, a big improvement in material incentives, especially on collective farms, and some positive organizational changes, such as the abolition of mechanical tractor stations. Overall, the impact of these changes must be positive. Even where problems remain (e.g., the availability of adequate labor resources), it is important to remember that without improved incentives, the current labor

supply problem could be much worse than it really is. Of course, there is no clear line between the extensive and intensive nature of resource use patterns. In fact, such shifts are usually long-term and subject to adjustment rigidities. Moreover, it is difficult in practice to isolate and assess the independent forces that have contributed to this change. In this sense, while the Soviet Union's long-term intensification strategy was rational, we should not be surprised by the short-term reversal. The important question, however, is whether these reversals, especially given the peculiarities of the Soviet natural environment, can be managed so that long-term progress is unchecked. Looking back briefly to the Brezhnev period, a few generalizations seem appropriate. First, the large-scale campaign planning of the Khrushchev era no longer exists. Second, some of the lesser-known but perhaps more important changes of the Khrushchev era seem to have been preserved; For example, organizational improvement, specialization and emphasis on improving incentive mechanisms. Third, at least in the first few years, despite (or because of) severe climate reversals, impressive efforts have been made to scale up investment and direct it towards production intensification, for example, through soil improvement (drainage, fertilization, etc.). All this formed the cornerstone of the Soviet Union's most powerful era.

**Table 2 : SOVIET PER CAPITA CONSUMPTION OF SELECTED FOODS, 1950-1970
(kilograms)**

Food Item	Norm	1950 Actual	1960 Actual	1970 Actual
Meat and Fat	82	26	40	48
Fish & Fish Products	18.6	7.0	9.9	15.4
Milk & Milk Products ¹	405	172	240	307
Eggs (number)	292	60	118	159
Sugar	40	11.6	28.0	38.8
Vegetable Oil	9.1	2.7	5.3	6.8
Potatoes	97	241	143	130
Grain ²	110	172	164	149
Vegetables & Melons	146	51	70	82
Fruit & Berries	113	11	22	35

Source: U.S. Department of Agriculture, *The Agricultural Situation in the Soviet Union: Review of 1975 and Outlook for 1976*, no. 118 (Washington, D.C.: U.S.D.A., Economic Research Service, Foreign Agricultural Economic Report, April, 1976), p. 23.

¹ Includes the milk equivalent of butter.

² Flour equivalent.

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4. Economic Policies and International Trade Relations During the Cold War

Cold War can be seen as a conflicts between Soviet Union and United State. Due to the different ideologies and perspectives, I do not suppose that who are completely wrong. However, if just pay all attention to the political or even military conflicts between two countries who dominated the worldwide economy even circumstance in that period is too unilateral. At that period, the diplomatic and economic policies were much more significant and remarkable. If analysis the impact which is brought by Cold War, the history and relation between countries is not sufficient, we should definitely involve the economic trades and policies with other countries. The concentration on two countries, the picture of the world cannot be formed, so that the most nuclear definition and concept of the Cold War will be permanently unknown by the scholars.

20 L. A. Vedeshina, * and D. A. Shapovalovb “*The First Scientific and Technical Experiments in Space EarthSciences*” (On the 60th Anniversary of Satellite Images of the Earth from Manned Spacecraft) 2022 p1689

4.1 Economic policies

US politics may not have been necessary in future studies of the Soviet Union, but it did lead to a number of decisions that were taken by the Soviet Union. The United States has followed a capitalistic economy, which is broadly based on free markets and private property. The United States carried out the Marshall Plan, which gave financial assistance to Europe after the war in order to reduce communist influence. Moreover, the United States has pushed forward a number of international trade agreements, including North American Free Trade Agreement (NAFTA) and World Trade Organization (WTO) in order to consolidate their dominant position in global trade. The Marshall Plan should not be overlooked, which required every beneficiary to enter into a bilateral agreement with the United States, which required them to maintain a balanced fiscal position, to resume fiscal consolidation, and to keep the currency “within reach”. The project helped shape the European Payments Union in 1950, which preceded the European Economic Community in 1957. But what was important was that the Marshall Plan put an end to the Marshall Plan in the early years of the Cold War – at least in West Germany. And Soviet Union launched a similar program known as the Molotov Plan to counter the danger of American alignment. The Soviet Union introduced socialism economy, set up state owned companies and organized agriculture. The Soviet Union built up its industry foundation and economy through a five-year-plan and nationalizing policy to improve its status in the world. In addition, the Soviet Union has also built up a number of business and business relationships with some Communist nations to broaden its influence. The Soviet Union, Bulgaria, Hungary, Poland, Romania and Czechoslovakia have declared that they would set up ECONOMIC CO-OPERATION and Exchange (Economic Co-operation), which is located in Moscow. Following this, Albania, East Germany and Mongolia joined in the process. In 1956-1961, the Chinese side took part as an observer, but withdrew when the Sino-Soviet relationship collapsed. Member States such as Yugoslavia, Laos, Angola, Ethiopia, Afghanistan, Democratic People’s Republic, Mozambique and Cuba from 1964 to 1972 were also present as observers. Initially, Deputy Prime Ministers were appointed as Heads of State, followed by Prime Ministers. Two diametrically opposed and concurrent economic and market emerged in the Cold War. However, this organization ended up with failure because of the disagreement in decision-making and ideology.

Moreover, the most efficient and broad policy is planned economy. The Soviet Union’s “Five Year Plan” is the best example. They used this policy to construct the infrastruc-

ture, industrial development and every development that would require in developing a country. The First Five-Year Plan of Soviet Union means that between 1928 and 1932, the Communist Party of Soviet Union and its government implemented a large scale, integrated socialism, so as to make the Soviet Union’s over-agriculture. It was the very first time in the history of humanity that they had started building on the basis of a carefully laid out scheme. It was also the start of humanity’s large scale socialist modernization. The Soviet Union started its transition from agriculture to industry after the implementation of the Five-Year Plan. It also set up a comparatively integrated state economy system, which paved the way for socialism industrialization. But, while such a planned economy provides many advantages for the Soviet Union’s basic development, it must be done quickly once domestic infrastructure is built. This is why the Soviet Union’s economy and its system are falling apart.

4.2 Business relationship with other countries

The analysis of Soviet Union’s economic policy shows that the economic cooperation is the most important, not only economically, but also in foreign affairs. The Soviet Union, as a communist nation, has little foreign policy and focuses on self-development rather than establishing an international relationship with other nations. But I think the major cause is political differences, so the Soviet Union could not ally itself with other Western nations that control the world’s economy. The Cold War would have vanished if the Soviet Union had done so. The economy of CMEA was very different. Cuba, Mongolia, and Vietnam were comparatively behind the rest of the world, whereas Eastern European and Soviet Union were more advanced. CMEA is a closed-off economy zone, where the main business activities are carried out within the country. In 1950, for instance, the Soviet Union accounted for 81.1 per cent of its external trade through its membership. The Committee has taken advantage of schemes for allocation of resources between States and neglected the market’s function. They are not involved in the course of industry transfer and finance innovation, which influence the development of industry structure and the change of the way of growth. Economic cooperation established under the Soviet Union cannot be sustained due to a dispute over its future prospects. In my opinion, the Soviet Union will not be able to support its members. The explanation is that in the past, West European countries like Britain have already begun to industrialize, so they must have more advanced facilities to support them. But for the Soviet Union, as a nation that was just beginning to build, it was at a relatively fragile time, so I don’t believe that it could

stand up to an advanced nation. Moreover, the states that had entered the organisation received a certain amount of assistance from the Soviet Union, and therefore had no capacity to resist a counter-offensive.

4.2.1 Case Study in India

In addition to the main opposing nations - the Soviet Union and the United States - Cold War - there were also other Asian states associated with the world's development and model. India stands out as an excellent example of what a nation would do if it decided not to become an isolationist. In the Cold War, India pursued a Non-Aligned External Policy but was closely associated with the Soviet Union, and gained extensive Non-Aligned Movement's military assistance. The NAM is an international organisation that has 120 countries and 17 countries that are affiliated to it. Established in the Cold War, it has a separate external policy and has no affiliation with United States or Soviet Union super powers. Two thirds of the United Nations are members of NAM, and around 55 per cent of the global population also reside in the Non-Aligned Movement. The Non-Aligned Movement regularly hosts conferences, with conferences to date being held in ex-Yugoslavia Egypt Zambia Algeria Sri Lanka Cuba India Indonesia Colombia South Africa Malaysia Serbia Venezuela Azerbaijan and Uganda. In his address in Sri Lanka, Indian Prime Minister Jawaharlal Nehru used the Five Principles of Peaceful Coexistence (Respect for Sovereignty, Territory Integrity, Non Invasion, Non Interference, Equal, Mutually Beneficial and Harmonious Co-Existence), which Chinese Premier Zhou Enlai had put forward a year ago to address the Sino-Indian Political Divide as the Non-Aligned Movement. Later, during the 1955 Bandung Conference, the leaders of the 29 Third World Nations expressed their unwillingness to become embroiled in the United States' Cold War with the Soviet Union. Instead, they viewed the struggle against colonialism as a means of achieving national independence and elimination of poverty and economy. Even though most of them claimed to have their own foreign policy, in reality, they were siding with the Soviet Union and against the West. Cuba has been the Soviet Union's faithful ally all along. Even India, which was a founder of the movement, started to support the Soviet Union during the Cuban conference, which resulted in a conflict about Cambodia's position (then under Vietnamese occupation) which ultimately resulted in Myanmar's withdrawal from the Cold War. In fact, the Non-Aligned Movement no longer had any worth remaining. The focus of attention had moved away from Cold War politics to economy. In the post-cold War era, the G-22 has been more active in promoting the benefits of developing countries compared to the Non-Aligned

Movement. Notably, the two biggest developing countries in the world, Brazil and China, are not fully members of the Non-Aligned Movement. But they all play an essential part in this group of 22. For India, I don't exactly approve of them being an alignment state, since they have a possible inclination, and the rest of the group have their own inclinations, so their original relations aren't quite clear.

4.2.2 Case Study in China

Another case in point is China. In Cold War, the importance of Chinese studies lies in its close and contentious relations with the Soviet Union up to the fall of Soviet Union. In August 1945, when the Japanese Anti-Japanese War was about to come to an end, the Soviet Union launched an attack on Japanese forces and took over the northeastern part of China. In that time, the Soviet Union seized two billion dollars worth of industry equipment as "spoils", and seized three billion dollars in bullion and 850m coins. The Soviets gave part of Japan's arms to China's military, but they refused to let them take control of the northeastern region. The Soviet Union supplied CCP with arms during the civil war, but did not give full support to CCP. The PRC was established in 1949, and the Soviet Union was the first nation to recognize the PRC. The People's Republic has adopted a "unilateral" foreign policy, namely, it is more inclined towards socialism, and "Moscow - Peking" has been a popular tune since the foundation of the PRC. The Soviet Union and Chinese Friendship, Coalition and Mutual Assistance Treaty were signed in 1950. On May 1, 1960, USSR was hit by a U-2 aircraft, U-2 fell, United States and USSR tense, Chinese repeated its aggression. The Eleventh International Trade Union Congress Council was convened in Beijing at the beginning of June. The CCP was active in its criticism of CPSU's stance. In late June, CPSU launched a campaign against Peng Zhen's CCP delegation in Bucharest, which was attended by the Communist Party of over fifty nations, and launched an assault on the Chinese Great Leap Forward in order to suppress the CCP. On the 16th of July, 1960, the Soviet Government announced that the Chinese Ministry of Foreign Affairs will call back all the specialists from the Soviet Union on Sept. 1. Out of this total, 343 TA contracts have been terminated and 257 S&T co-operation projects have been halted. The Chinese have attributed some of these difficulties to what they see as a betrayal by the Soviet Union to pull out their specialists and pressure them to pay off their debts. Actually, China carried on with the Great Leap Forward. The Great Leap Forward's mistakes were one of the causes that caused the Soviet Union's experts to withdraw. Back in 1958, the Chinese were generally contemptuous and disrespectful of the Soviet specialists and regarded them as conservative.

From a historical point of view, Chinese relationship with Soviet Union looks odd. In my opinion, the influential element is the difference of ideas. Based on the current Chinese analysis, they concluded that the Soviet Union's decision to back China was due to a number of factors: Firstly, the U.S.S.R.'s alliance didn't offer an unconditional assurance for the United States' fight. Instead, it could be used as an instrument of diplomacy by the Soviet Union in negotiating a rapprochement with the United States. Secondly, Chinese modernization efforts, especially in the fields of defence and industrial development, were unable to obtain the Soviet Union's unselfish help. Instead, the Soviet Union would use its modernization to build up its reliance on the Soviet Union, so that it would become an inferior part of the Soviet Union. Thirdly, Chinese and Soviet Union's internal and external relations started to move in reverse, and the shared language and mutual benefits are increasingly rare. It is worthwhile to pay close attention to whether the Soviet Union will turn into the next Yugoslavia. By the end of the sixties and seventies, the Chinese and the Soviet Union were among their greatest foes. In the beginning of 1970's, Chinese criticism of the Soviet Union's social imperialism and revisionism was still ongoing. Revisionism is the modification of a set of scientific theories proposed by Germany's philosopher Karl Marx. The tendency of ideology and ideology goes against the fundamental principles of Marxist philosophy and therefore does not inherit and develop Marxist. But one party can't be absolutely right, I guess the Chinese and the Soviet Union have their own interests in mind, and I don't believe their reasoning is right, for Soviet Union has already built its foundation, while China is still a novice. If China could have more experience which is gained by the development of the country, the gap between the two countries can be reduced. Along with the development of Chinese economy, the Chinese revolution is also very dramatic due to the realistic demands and foresight of the country's sustainable state. However, this doesn't necessarily mean that all Chinese decisions are absolutely right.

4.3 Eastern Europe and the North Atlantic Treaty Organization's economic impact on the Soviet Union.

The majority of European states that have decided to establish ties with the Soviet Union are situated in East Europe. Now, they had to look for a powerful nation to depend on, as they had already begun to build their own nation. The Warsaw Treaty (1955) has great influence on Soviet Union's relationship with other East European states. Therefore, we should not neglect North Atlantic

Treaty Organization for further analysis of Soviet Union. The United States saw the need for a powerful, comprehensive, and economic re-militarisation of Europe to stop the proliferation of communism throughout the continent, which prompted then US Secretary of State George Marshall to put forward a plan of huge financial assistance for Europe, while Western European nations were ready to think about collective security. In May 1948, Republican Senator Arthur Vandenberg presented a proposal for the United States' president to sign a security agreement with Western Europe, which would respect the Charter of the United Nations but remain outside the Security Council. Talks about creating NATO had already started. The North Atlantic Treaty Organization (NATO) and Warsaw Pact, which were both ideological opposites during the early Cold War, had a primary objective: to stand against one another; an attack by a foreign power on a Member States required immediate help from other Member States in any way, including military aid for the Soviet-backed Warsaw Pact, which represented the Eastern Bloc nations, whereas the US-backed NATO and its members stood for the West. But neither of them had ever engaged in a direct battle, particularly in Europe. On the contrary, the United States, Soviet Union, and its allies were engaged in a strategy designed to restrict one another in Europe as well as to gain influence on the world scene. It seems to me that the most important aspect of this double organisation is that the original intention of the Soviet Union to start this Treaty with NATO was to make a complete statement about the Cold War.

5. Conclusion

To sum up, the Soviet Union's First Five-Year Plan, launched by Stalin, is a clear illustration of the ambitious economic objectives that have been achieved by means of coercion. Propaganda campaigns glorified collective farming while downplaying the profound hardships and widespread resistance encountered in rural communities. The farmers who opposed the collectivization were confronted with serious consequences, such as being arrested, deported or even executed, under the supervision of the national police and the army. This has created a pervasive atmosphere of fear and mistrust amongst the rural population. In spite of enormous human expense and opposition, the First Five-Year Plan did reach certain goals in terms of economy. Especially in industrial production, which paved the way for the Soviet Union to become an industrial power in the future. But the cost of such achievements was astonishing: the forced displacement or death of hundreds of thousands of farmers, and the production of agriculture suffered for many years. In addition, the First Five-Year

Plan was a critical period in Soviet history, when central economy and national authority were given priority at the cost of manpower. This method laid the foundation for later programs that further strengthened state power and radically transformed Soviet society.

The Soviet Union's spectacular industrial success in the middle of the twentieth century helped to establish itself as a world power. Driven by central planning and large amounts of government investment, Russia's economic growth boomed, strengthening its capabilities in all sectors. Not only did this industry turn the Soviet Union into a powerful economy, it also paved the way for later geopolitics, especially during the Cold War. The Soviet Union, propelled by a growing industrial base, began a war against the West, motivated by a contest of weapons techniques, atomic power, and strategic clout. This rivalry has increased East-West tensions, which will determine the political and security dynamics of the world for the next few decades. So the Soviet Union's massive industrial progress has not only strengthened its internal capacity, but also laid the groundwork for a protracted and powerful conflict with its West counterparts.

From 1945 to 1980, the Soviet Union did indeed have serious efforts in transforming agriculture, but this work was also the source of perpetual frustration and mixed results. Immediately after the devastating war that was World War II, agricultural recovery became the top priority of the Soviet government in its broader agenda for reconstruction. The state remained insistent on forced collectivization by consolidating small farms into enormous state-controlled units. Although there were several successes in restoring the pre-war agricultural levels, inefficiencies inherent in a centrally planned economy still hampered this sector.

Ambitious attempts at agricultural reform were made during the leadership of Nikita Khrushchev. The most notable of these was the Virgin Lands Campaign of the 1950s. This campaign aimed at increasing grain production by bringing virgin lands under cultivation, especially in Kazakhstan and Siberia. Although this campaign showed some promise during its initial years, it failed to make any sustainable gains. Monoculture practices and poor planning caused soil exhaustion and declines in yields. Other reforms by Khrushchev, like improving farm management and providing incentives for farmers, received strong opposition and were only partially effective. The Soviet agricultural sector started to stagnate during the Brezhnev era, from 1964 to 1982. While the government continued to pour money into agriculture, such as mechanization and large-scale irrigation projects, the productivity remained very low. The rigid centralized planning system further reduced the flexibility and adaptivity of agricultural success, while more complications

were added by the aging rural workforce. Probably the most illustrative case of this inefficiency was the periodic shortages of major foodstuffs despite huge overproduction in other sectors.

In this entire period, the Soviet Union was seriously faced with logistical problems in relation to the delivery of agricultural products. Most often, centralized planning meant missing a match between supply and demand; there was huge food wastage since the facilities for transportation and storage were not adequate. The top-down decision-making process was too rigid to allow space for local adaptation, thus killing innovation and timely responses to the varied needs of the Soviet Union's huge agricultural regions.

By the 1970s, it had become only too obvious that the Soviet model for agriculture was not yielding expected benefits. Although modernizing this sector and improving the standard of living in the countryside was a step in the right direction, the Soviet Union became more dependent on grain imports to meet internal demand by the day, which fairly pointed to a failure of achieving self-sufficiency. Such dependence on imports did not just further underscore the frailties of Soviet agriculture; it also put additional stress on the country's economic resources.

In summary, the Soviet Union's agricultural growth from 1945 to 1980 was substantial in terms of state-driven efforts but was nullified by systemic inefficiency, bad planning, and failure of incentives regarding innovation and productivity. Centralization of agricultural policy guaranteed state control but took away the flexibility and local decision-making crucial to success in a country of such diversity and size. Some periods, particularly in the first years, were observed to boost productivity as a result of Khrushchev's reforms; however, the general outcome was stagnation and dependence on imports. Soviet agriculture at this time serves as a clear example of the constraining effects a planned economy can have on the management of complex and dynamic sectors such as agriculture, whose nature demands the motivations of adaptability, innovation, and local knowledge in the drive toward further growth and progress.

In general, the analysis of the economic policies of Soviet Union and trades with other countries cannot escape from the circumstance of the politics and conflicts in national systems. The situation of economy is determined by the situation of the politics, it is totally true no matter how the world will develop in the future. The destruction of the Soviet Union is a considerable issue, all the countries which are communism countries should have a forethought of their development, avoid the bureaucratism and too rigid mindset.

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