

# **Quantification and Evaluation of Production Value under the Planned Economy System: A Comparative Analysis of Market-Oriented Reforms in China and the Soviet Union**

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**Abstract:** During the 1960s and 1970s, China and the Soviet Union, as socialist states operating under a planned economy, successively encountered bottlenecks in their economic development. These included the inability of central planning to fully adapt to the immediate demands of the market; low production efficiency coupled with significant waste of means of production; and a degree of confusion in the formulation of production quotas for local production units by the central authorities. These issues concerning the quantification of production value are crucial to the operation of the planned economy; the design of these indicators and actual inputs influence the actual trajectory of the socio-economy. Taking the reform measures of the planned economies in China and the Soviet Union as a starting point, this paper analyses, from the perspective of the quantification and evaluation of production value, the drawbacks of replacing physical indicators with value indicators in the Soviet Union's

Lieberman-Kosygin reforms, compares the logic of production value assessment under incremental reform during China's Reform and Opening-up, and, drawing on Kornai's theory of transition economies, the experience of implementing planned economies and their operational logic, explores the balance between the quantification and assessment of production value under a planned economy. It proposes that the assessment of value must take into account both quantity and quality, the matching of supply and demand, and alignment with the superstructure. The study finds that a single value indicator is prone to causing a disconnect between the production side and actual demand, whereas a dynamic evaluation system that balances planned regulation with market adjustment is key to achieving the rational quantification and

effective evaluation of production value.

**Keywords:** Production Value; Quantification and Evaluation; Planned Economy; Sino-Soviet Reforms; Incremental Reform

## **1. Introduction**

The planned economy system centres on the state apparatus's coordinated planning and allocation of resources, with the quantitative assessment of production value serving as the crucial link between national planning and enterprise production, determining the quality of resource allocation and economic development. In the mid-to-late 20th century, both the Soviet Union and China undertook reforms to break free from the constraints of the planned economy, attempting to explore market-oriented reforms within the framework of the planned economy. The Lieberman-Kosygin reforms of the 1960s adopted profit as the core value indicator, making it the new focal point of production value assessment. China's early reform and opening-up, on the other hand, took incremental reform as its path, gradually exploring a production value assessment system that combined planning with the market. Ultimately, these two reform processes yielded starkly different practical outcomes.

From a theoretical perspective, Hayek, a key founder of neoliberal theory, criticised the lack of a market foundation in the production value assessment of planned economies from the perspectives of the doctrine of ignorance and economic accounting. Firstly, Hayek proposed the doctrine of ignorance, intending to draw an analogy between the state's act of formulating development strategies through planning and the fact that humans can only grasp 'fragmented' knowledge, thereby pointing out that attempting to formulate plans for future economic development detached from the market is

foolish. In other words, the plans devised by the socialist planned economy were irrational; as they were unable to allocate resources effectively and in a timely manner, these plans lagged significantly behind the market's allocation of social resources, resulting in poor economic circulation and irrational resource allocation [1]. Furthermore, the cornerstone of Hayek's challenge to the planned economic system in the economic sphere stemmed from his mentor Mises's 'Argument from Economic Calculation', which emphasised that the value of production is measured by market prices, and that these prices play a decisive role in the system of evaluating production value. Faced with the Soviet planned economic system—which, following Stalin's New Economic Policy, gradually established 'limited commodity-money relations' and a framework 'centred on physical indicators, with value indicators serving as a supplement' [2]—this theory seemed to 'genius-like' foresee that 'socialism need not necessarily abolish money entirely. It is conceivable that the use of money might be permitted in the exchange of consumer goods. However, since the prices of various factors of production (including labour) are not expressed in monetary terms, money cannot play a role in economic accounting [1]."

Kornai, however, pointed out that due to the undeniable role of the 'state' within the planned economic system, its resource-constrained structure tends to cause production value to become easily detached from actual demand at the very outset of assessment; furthermore, socialist planned economy theory emphasises that a rational assessment of production value must be grounded in public ownership; the authority to allocate resources already creates friction with market demand, making it imperative to strike a balance between macro-level equilibrium and micro-level dynamism at the grassroots level. This is because, regardless of the social system, the functioning of society inevitably requires building a foundation for balanced operation upon the friction and contradictions between ideal institutions and real-world conditions. In other words, it is highly unlikely that a social system could exist which both upholds the 'pure requirements of socialist ideology' and simultaneously fulfils every possible aspect of development, from the societal to the individual level.

From a practical perspective, the standardisation of production value quantification and the one-sided nature of production value standards in the Soviet Union's economic reforms became major contributing factors to the failure of those reforms. In contrast, China's reforms simultaneously implemented gradual market-based adjustments to its production value standards. Although certain loopholes emerged during the implementation of the 'dual-track system' that disrupted socio-economic order, the transition from a planned economy to a socialist market economy was, in essence, achieved smoothly.

Taking the quantification and evaluation of production value as its central focus, this paper examines the reconstruction and implementation of production value evaluation systems in the planned economy reforms of both China and the Soviet Union. It analyses the operational logic and practical contradictions inherent in their economic evaluation mechanisms. By integrating planned economy theory with practical experience, the paper aims to provide theoretical and practical references for understanding the operation of the planned economy system, its value evaluation mechanisms, and the pathways for market-oriented reform.

## **2. The Theoretical Foundation of Production Value Quantification and Evaluation under the Planned Economy System**

### **2.1 The Logic of Production Value Assessment in the Socialist Planned Economy**

The socialist planned economy, grounded in Marxist theory of reproduction, divides social production into two major sectors: the production of means of production and the production of means of consumption. Its core objective is to achieve proportional balance in social reproduction through the quantification and evaluation of production value following the completion of the 'production' stage. Huang Zhenqi points out that the evaluation of production value under the planned economy essentially involves the state consciously regulating production proportions through planning to avoid the waste caused by the anarchic state of capitalist production. Its core lies in balancing the expansion of production scale with the macroeconomic equilibrium of the national economy, ultimately serving to meet the

people's ever-growing material and cultural needs. Objectively, this standard for the evaluation of production value must align with the fundamental purpose of socialist production—namely, that production fundamentally serves the people's ever-growing needs for a better life. This standard is capable of correctly addressing two key relationships: the relationship between the material accumulation of means of production and the necessary consumption for production; and the relationship between the state's macro-level production and construction needs and the people's micro-level demands for livelihood development.

Regarding the formation and development of the socialist planned economic system. The emergence of the planned system is both a product of the continuous refinement of socialist reproduction theory and the fundamental pathway for promoting the practical refinement of Marxist reproduction theory across different historical periods. Faced with the transitional stage of socialist society, establishing an effective system of production and reproduction within this social phase has become a pressing issue requiring urgent resolution. The 'value assessment' stage, situated between the two major processes of 'production' and 'reproduction', bears the crucial responsibility of acting as the 'lubricant' between these two sectors of production during the period of economic reform. From the perspective of Marxist political economy, Bai Hexiang argues that the valuation of production value in a socialist planned economy does not entirely exclude the market. Rather, it combines planned regulation with the laws of market value on the basis of public ownership. The quantification of production value must not only reflect the scale and volume of production on the part of the producer, but also reflect the utility of the 'production' stage within the entire social production process—that is, the degree to which the outcomes of production match social needs.

## **2.2 Criticism and Insights from Transition Economics Theory Regarding the Evaluation of Production Value**

As a key figure in the study of 'transition economics', the Hungarian economist Kornai pointed out that a planned economy is a resource-constrained system. Its evaluation of production value, centred on state planning

indicators, tends to lead production enterprises to focus solely on whether their production value meets the standards set by the state in terms of physical output or monetary value, whilst neglecting actual production efficiency and market demand. He proposed that, to ensure the effective evaluation of production value during the reform period, conditions such as material incentives, rigorous accounting and flexibility must be met. A single, flat planning indicator struggles to provide a reasonable assessment of market demand when evaluating production value; therefore, market mechanisms must be introduced to construct a dual-track evaluation system combining the state-owned and non-state-owned sectors. Put simply, on the one hand, we must remain unwavering in our commitment to state-owned enterprises, rejecting all forms of property rights reform within them and opposing the entry of any private capital into state-owned enterprises through financing channels, thereby avoiding a 'rejection reaction' between depersonalised property rights and the market that would reduce enterprise production efficiency; on the other hand, to ensure macroeconomic stability during the transition period and prevent the disorderly expansion of state-owned enterprises, we should proactively grant state-owned enterprises partial autonomy and pricing power internally; however, we should restrict the credit limits granted to state-owned enterprises by financial institutions such as banks, thereby imposing strong constraints on the enterprises' budgeted accounts through the external financial environment, with the aim of improving production efficiency whilst minimising the waste of means of production as much as possible.

Hayek, who emerged from classical liberal economics and exerted a significant influence on subsequent neoliberalism, focused his critique of the value assessment of production under the planned economy on the perspective of economic accounting. He believed that the value assessment process in a planned economy lacked a foundation in accounting. His unwavering faith in the role of the market led Hayek to maintain that value accounting without market prices as an evaluation standard constituted a significant flaw. This not only affected the final assessment of production value but also meant that the state's centrally determined quantitative indicators would, from the outset, struggle to meet the dynamic demands of the market,

resulting in severe disconnects. Market information, being too dispersed, could not be fully captured by state planning, whilst single quantitative indicators were prone to distorting the assessment of production value, thereby leading to inefficient resource allocation and waste. Although his theory contains certain ideological biases, it highlights the core problem within a planned economy: the absence of market feedback in the assessment of production value. This stems from the fact that a planned economy excludes means of production from the realm of commodities, and the scale of consumer goods available for exchange is similarly limited; consequently, exchange itself is not as significant as it is in a market economy. Furthermore, due to the 'limited commodity-money relationship' in Stalin's economic theory, materials used for production do not enter the market sphere of exchange. Consequently, they cannot be exchanged using money—which plays an increasingly diminished role in a planned economy—as a medium of exchange, and the monetary price of means of production ceases to exist. 'The accounting function that money performs in production under a free economy will not exist in a socialist society.' [1]

### **3. A Comparative Analysis of the Practice of Quantifying and Evaluating Production Value in the Planned Economic Reforms of China and the Soviet Union**

#### **3.1 The Soviet Lieberman-Kosygin Reform: The Practical Dilemmas of a Single Value Indicator**

The Kosygin Reform targeted the problem of restricted development in the production sector caused by the shortcomings of the planned economy system. It advocated using "profit as the core indicator for evaluating enterprises", gradually shifting the quantification and evaluation of production value from traditional physical indicators to value indicators, in an attempt to enhance enterprise production efficiency through profit incentives. In terms of the quantification of production value, the reform adopted the total value of products produced as the core indicator, replacing the previous physical indicators such as output and quality; in the evaluation system, enterprise profits were linked to workers' bonuses, and the total profit level of the products produced by an

enterprise became the sole criterion for enterprise assessment and the distribution of workers' benefits [3].

Issues concerning the evaluation of production value indicators had already begun to emerge at the very inception of the Stalinist economic model. A planned economy can be viewed both as a state-controlled 'resource-constrained economy' and as a supplementary economy designed to achieve rapid growth through 'accumulating strength for a sudden burst' over a short period. Through state planning, it allocates all resources available for production and development within the spatiotemporal constraints of 'the entire nation' to the areas of greatest urgency on the present or future timeline, using the 'quantity' of production of means of production (Department A) and development of means of production (Department B) to catch up with the 'quality' of development. Essentially, it is a means of plugging the gaps left by the nation's past slow or even stagnant development within a short timeframe, effectively 'paying the price for past shortcomings'. In order to achieve predictable development within a short timeframe, the indicators used in a planned economy to assess production value are naturally unlikely to be the 'general equivalent' required for market exchange, but rather tangible means of production that can be invested in 'reproduction'. Consequently, prioritising natural (physical) indicators when formulating plans and evaluating economic development outcomes is a key principle [1]. The value assessment system of the planned economy, which disregarded market prices and focused on the quality and quantity of physical goods, clearly aligned with a key principle of value assessment in the Stalinist economic model: restricting retail sales of commodities and reducing production costs.

The shift in the qualitative and quantitative standards for determining production value from physical output to the actual profits derived from the products did indeed promote a certain degree of economic development in the early stages of reform, temporarily alleviating the predicament of the Soviet economy's sluggish growth rate that had persisted since the mid-Brezhnev era. This alleviation was possible because, from the Khrushchev era onwards, the Soviet planned economy had ceased to pursue its plans with "excessive rigidity". The clear-cut, top-down 'vertical' production planning of the Stalin era, with its well-defined divisions of labour among

production ministries, was gradually dismantled. The jurisdictions and responsibilities of numerous production ministries began to overlap, and the economic development items in the centralised plan often included a significant proportion of intermediate and final product categories belonging to different production sectors, which were far broader in scope than before [4]. Although various departments theoretically proposed re-establishing a 'process-target' style of planning, in practice they continued to formulate production plans for the new quarter by referring to the production plan levels of the previous quarter.

However, as reforms progressed, the inherent flaws in this single-value-indicator evaluation system gradually became apparent over time, giving rise to a series of practical difficulties: Firstly, there was a severe disconnect between local realities and central planning, with discrepancies frequently arising between the central government's quantitative production value standards and the actual output of local enterprises. Apart from unforeseeable local contingencies (such as delays, wastage or reduced output in transport or agricultural raw materials caused by weather and other factors), human error within enterprises cannot be entirely avoided. In pursuit of total product value, enterprises often opt to reduce output and raise prices, or overlook the wastage of raw materials. This results in a rise in nominal output value whilst actual labour productivity declines, leading to a severe mismatch between national economic accounts and actual production output data. Furthermore, there is a contradiction between central planning and the dynamic nature of market demand. Due to the prescriptive nature of a planned economy and resource constraints, the production targets assigned to enterprises often struggle to adapt to the frequent fluctuations in market demand. The reform itself has only introduced market-oriented value indicators at the production end, whilst no corresponding market-oriented reforms have been implemented on the demand side. Consequently, enterprises focus narrowly on meeting profit targets, neglecting the market's actual demands for product quality and variety. This results in an imbalance between supply and demand, significantly reducing the social utility of the value produced.

The problems arising from changes to reform-era value indicators were not confined to

the relationship between central and local authorities, or between planning and the market; they also existed amongst the interest groups that formed following the establishment of these new indicators. Enterprise profit distribution was based on the allocation of production value; an evaluation system centred on profit made the enterprise the basic unit of interest distribution, giving rise to a departmentalised form of small-group ownership. Various ministries engaged in cut-throat competition for means of production, exacerbating the waste of raw materials and bureaucratic corruption, and intensifying the conflict of interests between direct producers and the state.

The starting point of the Lieberman-Kosygin reforms was to enhance the vitality of the Soviet economy, beginning with the linking of enterprise profits to production value and culminating in market-oriented value indicators at the production end. However, the core of the reform—the system for evaluating production value—never managed to address the fundamental issues of the planned economy. It merely made minor adjustments to planned targets, placing one-sided emphasis on profit incentives at the production end whilst neglecting market feedback from the demand side. Ultimately, this led to the quantification and evaluation of production value becoming detached from the actual conditions of economic development, which became a major cause of the reform's failure.

### **3.2 China's Early Reform and Opening-up: A Diversified Production Value Assessment System under Incremental Reform**

In the early stages of China's reform and opening-up, adhering to the principle of prioritising the planned economy whilst supplementing it with market regulation, and adopting incremental reform as the pathway, a diversified production value assessment system was established that balanced planned indicators with market demand, thereby overcoming the limitations of a single-indicator planning system. In terms of the quantification of production value, the reform and opening-up did not entirely abandon physical indicators; rather, whilst retaining the planned indicators of the state-owned sector, it introduced market value indicators for the new sectors emerging from incremental reform (such as township enterprises and foreign-invested enterprises). The

state-owned sector continued to focus on physical indicators such as output and quality, ensuring the supply of essential materials for national key construction projects and basic social production and living needs; the incremental sector, however, adopted market efficiency and product competitiveness as quantitative standards, adjusting the production scale and product range of these enterprises in accordance with real-time market demand, thereby achieving diversification in the quantification of production value.

In terms of production value assessment, the reform established a dual evaluation system of 'planned regulation plus market feedback': firstly, to address issues such as passive work attitudes and raw material wastage in the production processes of state-owned enterprises, value-based indicators such as profit and cost were introduced into the production value assessment framework for these enterprises. This approach balanced the fulfilment of national plans whilst using market-based incentives such as profit to stimulate production enthusiasm, thereby compelling enterprises to reduce consumption and enhance efficiency. This marked a significant 'leap' in market-oriented reform, shifting the focus from the consumer goods market to the market for factors of production; furthermore, for newly emerging production sectors, the criteria for assessing the value they create are entirely market-oriented, with the market competitiveness and economic efficiency of enterprises' products serving as the core metrics, thereby fully leveraging the market's feedback role in the production value assessment process; finally, through favourable policies on opening up, the policy advantages of special economic zones, and the vast demand created by the market, the alignment of production value assessment with market demand is promoted, ensuring that production value is reflected not merely as nominal output but as actual market efficacy.

In his book "The Miracle of China: Development Strategy and Economic Reform", points out that China's reformed system for evaluating production value is grounded in the country's resource endowments. By fostering new economic entities through incremental reforms, it safeguards the fundamentals of the planned economy whilst introducing market mechanisms as a supplement to the evaluation of production value. This approach avoids the rigidity of

single-plan indicators and prevents the blindness associated with them, thereby achieving a gradual optimisation of the quantification and evaluation of production value.[5]

#### **4. The Core Contradiction in the Quantification and Evaluation of Production Value under the Planned Economy System**

##### **4.1 The Contradiction Between the Singularity of Quantitative Indicators and the Plurality of Production**

Under the planned economy system, the quantitative standard for production value is often defined solely by a single physical indicator. Although using physical output as the core criterion for value assessment can be effective in the early stages of a nation's socio-economic development or during the restructuring of industrial chains of varying nature across society-enabling the concentration of resources to tackle major undertakings-it will, in the long run, gradually lag behind the market that emerges once social productive forces have developed to a certain extent. At this stage, social production exhibits the diversity of product value, encompassing not only quantitative dimensions such as output and scale, but also qualitative dimensions such as quality and efficiency, whilst inevitably involving social dimensions such as resource consumption and environmental impact. The Liberman Kosygin reforms, which adopted the total value of a company's output as the sole quantitative indicator, neglected the quality and efficiency of production. In order to achieve the total value of their output, enterprises exploited the loopholes created by the absence of natural (physical) indicators, deliberately producing goods with high planned prices and long production cycles. By producing goods with complex manufacturing processes, they achieved high value standards with relatively small quantities, thereby creating a situation where output value existed in name only without corresponding physical output; the distorted and deviant planned economy continued to treat physical output as the core value indicator, yet neglected the inevitable costs and losses inherent in production. These issues all resulted in quantitative measures of production value failing to fully reflect the actual outcomes of production.

#### **4.2 The Contradiction between the Closed Nature of the Evaluation System and the Openness of the Market**

As a resource-constrained economy directly controlled by the state, the planned economy strictly serves the needs of the state plan throughout the entire production process—from the formulation of production plans to the allocation of means of production and the production of goods. Consequently, the valuation of products after production is likewise centred on the state plan, forming a closed evaluation system. Just as Mises, citing 'the argument of economic calculation', one-sidedly criticised the planned economy for 'rejecting commodity exchange and the money market'. Although the planned economy promotes the 'decommodification' of the means of production, it does indeed suffer from a lack of effective feedback regarding the varying demands of different regions, industries and markets. As the primary agents of production, enterprises were accountable only to the national plan, rather than to market demand. This led to a disconnect between the valuation of production and actual market needs and their immediate fluctuations. Consequently, the fruits of production could not be transformed into tangible social value; instead, this exacerbated problems of production losses and the waste of means of production. A vast quantity of finished goods, unable to meet genuine market demand in a timely manner, were stockpiled or discarded, effectively becoming 'deadweight supply'. Kornai pointed out that this closed evaluation system was an inevitable consequence of the resource-constrained structure of the planned economy; only by introducing an open market feedback mechanism could the evaluation of production value be rationalised.

#### **4.3 The Contradiction between the Rigidity of Macroeconomic Regulation and the Flexibility of Micro-Level Production**

As enterprises' annual production plans were uniformly set by the state, they were compelled to commence production strictly in accordance with the 'path' laid out by the state. The state's macroeconomic control mechanisms were characterised by a high degree of rigidity, making it difficult for enterprises to alter or adjust parameters such as the types and quantities of goods produced in response to actual market demand. Consequently, enterprises

lacked the flexibility to adjust their production targets autonomously. Consequently, enterprises can only passively fulfil state-set targets, unable to adjust production plans in response to actual production conditions or real-time market fluctuations. This results in the quantification and evaluation of production value becoming detached from the realities of enterprise operations, with the micro-level dynamism of production sectors being stifled by macro-level planning arrangements. Much like the planned economy system implemented in China prior to reform and opening-up, the scope of state planning was overly comprehensive and rigid, hindering the initiative of various production sectors whilst, in turn, severely impacting the balance of the nation's macroeconomic development and overall economic stability. At the same time, enterprises directly involved in the production chain saw their productive vitality and the enthusiasm of the workforce stifled by directive planning. Ambiguity regarding responsibility, a lack of motivation, and the prevalence of a 'one-size-fits-all' approach were commonplace, severely undermining the autonomy and independence of micro-level producers. In summary, the strength of the planned economy lies in macro-level balance, as it can mobilise all available resources to meet national macro-level demands; however, its weakness lies in overly strict micro-level control. The quantification and evaluation of production value must strike a balance between the rigidity of macro-regulation and the flexibility of micro-production within the production sectors.

#### **5. How to Address the Core Contradiction Between Quantifying and Evaluating Production Value**

##### **5.1 Identifying Key Variables That Influence the Balance in the Process of Quantifying Production Value**

The quantification of production value must not focus solely on quantitative indicators such as enterprise output and output value; it must also incorporate efficiency indicators such as quality, cost, and resource consumption. This approach will establish a multi-dimensional, multi-layered, and multi-faceted evaluation framework, thereby creating a quantitative system that balances quantity and quality and unifies scale and efficiency within the production value evaluation

system. First, within the context of a planned economy, the establishment of an orderly production and evaluation system must, in the short term, rely on the market foundations of the old society. A "one-size-fits-all" approach should not be adopted too hastily; instead, theoretical innovation and practical exploration should proceed sequentially, taking into account the overall revolutionary development process of society and the current state of economic construction under the people's government. The "reconstruction" of the socialist economic system must be carried out under the scientific guidance of Marxist theory. Therefore, a sound economic system should be formed on the basis of a comprehensive economic development theory, and a brand-new model can only be realized on a theoretical foundation that is constantly innovating and renewing itself. As Stalin put it: "Without new theory, our cause will perish" [6]. This point is powerfully demonstrated by both Lenin's "New Economic Policy"-with its strategy of "taking one step back to move two steps forward"-and the current reality of China's economic takeoff following reform and opening-up.

The historical experience of Soviet reform shows that a single value indicator easily leads enterprises to prioritize output value alone, neglecting the crucial factors of production efficiency and product quality; Conversely, China's successful reform experience strongly demonstrates that during the initial stage of combining a planned economy with partial market mechanisms to explore the path toward a socialist market economy, retaining the rational core of physical indicators while introducing value indicators as a supplementary measure-thereby preventing enterprises from falling into an output-only mindset-holds significant reference and practical value during economic system transitions. Through the coordinated calculation of quantity and efficiency indicators, it is possible to achieve a comprehensive quantitative assessment of production value, thereby resolving the disconnect between output and quality, as well as between scale and efficiency, at the systemic level.

## **5.2 Establishing an Effective Evaluation Pathway Linking Supply and Demand Through Market Feedback**

The essence of production value lies in the social

utility of production outcomes; its process evaluation must be guided by market demand to achieve an effective connection between the production and demand sides. The production value assessment standards under a planned economy do not exclude the market; rather, the lag in the production process makes it difficult to maintain stable and continuous operation in the face of the immediacy of changing market needs. To address the issues of misalignment between production and demand, as well as the detachment of production value assessment from social utility, the variable and essential condition of "market feedback" should be introduced into the production value assessment system. This is not only to ensure that enterprise production meets state-mandated needs at all times but also to enable real-time tracking of market dynamics during the dynamic production process, thereby better aligning with actual market demand. China's early reforms introduced market-oriented mechanisms through incremental reforms, making market feedback on products the most critical dynamic evaluation criterion for production value assessment in incremental production sectors. This achieved a dynamic alignment between production and demand, enabling timely adjustments to the production structure and providing a visual pathway and feasible solutions for the evolution of production value assessment within the context of planned economy reforms.

## **5.3 Paving the Way for an Appropriate Institutional Environment in Production Value Assessment through Incremental Reform**

As a critical benchmark for measuring total production value during the enterprise's production phase, the production value assessment system is not an indicator designed to operate in isolation from the economic system. Rather, it is a systematic endeavor embedded within an economic institutional environment with which it is deeply aligned. The Kosygin reforms, having failed to dismantle the core of the planned economy or formulate form a complete set of reform plans for both the demand and production sides, rashly implemented a single value indicator. This led to a disconnect between the production evaluation system and the macroeconomic institutional environment at the national level, inevitably resulting in a succession of problems throughout

the entire economic chain; In contrast, China's reforms adhered to a gradualist approach at the institutional level. By retaining the fundamental framework of the planned economy while gradually introducing market mechanisms, adjustments to the production value assessment system were aligned with institutional reforms, thereby achieving a smooth transition.

In response to the practical challenges of a disconnect between the assessment system and the institutional environment-and the chaos that radical reforms can easily provoke-we must ground our efforts in the realities of our own institutional framework and adopt a gradualist path of optimization. Adjustments and reforms to the production value assessment system should not be made in a one-sided manner merely to address economic issues; rather, they must be based on the country's actual economic foundation and real-world conditions. By making partial modifications and adjustments to key aspects of the old system that can be resolved at present, we can gradually move from the "shallow waters" of reform into the "deep waters," thereby avoiding problems such as detachment from reality that radical reforms might bring. To effectively curb the possibility that state-owned enterprises, after securing initial financing during the early stages of marketization, might be swept away by widespread market demand and engage in massive production disregarding actual conditions, the government should also exercise strong oversight over the banking and financial sectors to prevent excessive market financing from causing behaviors such as "investment hunger" and "quantity-driven impulses" among state-owned enterprises [1]

#### **5.4. Activating an Efficient Production Value Assessment System Through Macro-Level Control and Micro-Level Vitality**

To address the issues of insufficient vitality caused by overly tight national macro-control and disorder resulting from excessive local micro-level deregulation, a coordinated mechanism based on "joint management and consideration of the overall situation" should be established. The advantage of the planned economy lies in its ability to achieve proportional balance in the national economy through macro-control, while at the micro-level, the vitality of enterprise production is the foundation for realizing production value. The

quantification and evaluation of production value must balance macro-level equilibrium with micro-level dynamism. On one hand, national planning ensures macro-proportional balance in the national economy, thereby preventing anarchy in production; on the other hand, granting enterprises a certain degree of autonomy in production and operations allows them to adjust production strategies based on actual production conditions and market changes-while fulfilling national plans-thereby stimulating micro-level production dynamism. By prioritizing major enterprises while allowing smaller ones to operate with greater autonomy, and by clarifying the distribution of rights and responsibilities between public ownership and various forms of ownership in light of the rapid development of the market economy, public-owned enterprises serve as the "anchor" of the national economic system. They play a foundational role in stabilizing the macroeconomic landscape and supporting economic development at the national level, while also representing the economic status of the broad masses of the people as "masters" in the political sphere. Meanwhile, enterprises under various forms of ownership are an indispensable driving force propelling the national economy onto the "fast track" of rapid development. The emergence of enterprises under various forms of ownership has injected a powerful "catalyst" into the previously calm domestic economic environment, effectively "liberating and developing productive forces" for China as it prepares to enter the new century. To a certain extent, this represents a burst of accumulated strength built upon the foundation of past public-sector economic development, propelling China's productive forces at the beginning of this century to a new level. Deng Xiaoping, the chief architect of reform and opening-up, repeatedly emphasized the importance of developing productive forces and issued numerous directives: "The fundamental principle of Marxism is to develop productive forces" [7], "Marxism places the greatest emphasis on developing productive forces" [8], and "The ultimate goal of Marxism is to realize communism, and communism is built upon the foundation of highly developed productive forces" [9].

Huang Zhenqi's proposal to "maintain control and manage effectively at the macro level, while liberalizing and invigorating at the micro level"

[10] is precisely the core embodiment of the unity between the macroeconomic balance of the national economy and the microeconomic vitality of enterprise production.

## 6. Conclusion

The quantification and evaluation of production value constitute a core component of the operation of a planned economy; the design of its indicators, the construction of its system, and the outcomes of its implementation directly influence the operational efficiency of the planned economy and the trajectory of market-oriented reforms. The market-oriented economic reforms in both China and the Soviet Union represent two profound explorations of the transition from a planned economy to a socialist market economy, and whilst there are certain differences in their practical pathways and reform directions, the theoretical divergences and concrete practices across different reform domains highlight the significance of reform. The key to identifying the core contradictions in the quantification and evaluation of production value under a planned economy lies in determining whether there is a disconnect between single indicators and the increasingly diverse nature of production, between closed systems and market openness, and between rigid macro-level indicators and micro-level production flexibility. The Kosygin reforms in the Soviet Union, by implementing a single indicator for assessing total production value whilst neglecting market demand and institutional support, resulted in the evaluation of production value being incompatible with the actual economic situation, ultimately leading to the reforms' demise with the passing of their architect; In contrast, during the early stages of China's reform and opening-up, the country adopted a path of incremental reform, establishing a diversified system for evaluating production value that balanced production and the market, quantity and quality, and macro- and micro-levels. This achieved a gradual optimisation of the system for quantifying and evaluating production value, laying the foundation for the transition from a planned economy to a socialist market economy.

Judging from the theoretical framework and long-term practical experience of the planned economy, the quantification and evaluation of production value do not lead to a dichotomy between planning and the market, but rather can

achieve an organic integration following the balancing of multiple factors. A sound system for the evaluation of production value should be grounded in the institutional foundation of public ownership, with the macro-level balance of social reproduction as its core objective. It should take into account both the quality and quantity of products, as well as scale and efficiency, whilst aligning with the value assessment and incentive mechanisms within the national macroeconomic system. This approach stimulates micro-level production flexibility and initiative among enterprises, strengthens the market's attachment to products through measures such as reducing production costs and improving product quality via technological advancements, further emphasising the positive feedback from market demand in improving the efficiency of the production sector, and granting enterprises appropriate autonomy in production and operations, thereby achieving the unity of state macro-regulation and market self-regulation. It is hoped that this may provide a new perspective for a better understanding of the differing outcomes of the reforms in China and the Soviet Union, and offer some modest insights for the development and refinement of the socialist market economy system.

Under the socialist market economy system, the quantification and evaluation of production value must still inherit or draw upon the rational core of macro-coordination from the planned economy, whilst integrating the decisive role of the market in resource allocation. This will enable the construction of a more scientific, comprehensive and diversified value assessment system, ensuring that production value not only reflects the quantitative scale of economic development but also the actual achievements of high-quality development, whilst serving as the 'broad and smooth path' towards the common development of the people's pursuit of a better material and spiritual life. Ultimately, this will realise the goal of "the people's aspiration for a better life" and serve the fundamental objective of "eliminating exploitation, eradicating polarisation, and ultimately achieving common prosperity".

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