

The Supply-Side Structural Reforms

-Adapting to and Leading China's New Normal

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Abstract: The Central Economic Working Conference proposed supply-side structural reforms which can be regarded as major innovations and necessary measures that adapt to and lead the new normal of economic development. The 13th Five Year Plan is a critical period for the transformation of economic development patterns and economic restructuring, so clarifying the theoretical values and practical significances of the supply-side structural reforms, making a clear explanation of the scientific connotations and policy implications of these reforms from a scientific standpoint, and discussing concrete measures to promote the reforms against the background of the economic new normal not only has academic values but also has important practical implications. Viewed from the practical standpoint of China's new normal and through analyzing the basic national conditions, this article proposes a roadmap for implementing the proposed reforms and points out that only by doing well in the hybrid operation of "addition, subtraction, multiplication and division", based on the framework of the "five policy pillars", an innovative path of the supply-side structural reforms with Chinese characteristics can be paved.

Keywords: the supply-side structural reforms; economic new normal; five policy pillars; the hybrid operation of "addition, subtraction, multiplication and division"

Since the 12th Five Year Plan, the unreasonable phenomena of long-term structures in the process of economic development have become increasingly prominent. At the meeting of the Central Leading Group for

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Financial and Economic Affairs, Xi Jinping, the General Secretary, first proposed "the supply-side reforms" and clearly put forward the idea that, "we should properly expand aggregate demand and at the same time endeavor to strengthen the supply-side structural reforms, enhance the quality and efficiency of the supply system and strengthen the driving force for the sustained economic growth." Thereafter, Xi Jinping, General Secretary, and Li Keqiang, Premier, have continued to stress "the supply-side reforms" on many occasions.^[1] The 2015 Central Economic Working Conference put more emphasis on the significances of supply-side structural reforms and proposed that, "promoting supply-side structural reforms could be regarded as the major innovations that adapt to and lead the new normal of economic development, as the active selections that adapt to comprehensive power competition after the international financial crisis, and as necessary requirements that adapt to the new normal of Chinese economic development." Against this background and through answering three major questions, namely; what the supply-side structural reforms are, what the significances of promoting supply-side structural reforms under the economic new normal are, and how the supply-side structural reforms actively adapt to and lead the economic new normal, this article clarifies the theoretical meanings and policy implications of supply-side structural reforms and tries to answer how to deal with challenging issues in the period of the 13th Five Year Plan, and to realize "walking steadily to reach far" of China's enormous economy.

1. What are the supply-side structural reforms

Proper understanding of supply-side structural reforms in economics requires beginning with the

original theory. In the early 19th century, classical liberalism economic thought advocated by Say, a French economist, was the most important thought source of the supply-side school. Especially "Say's Law", namely the theory of supply automatically creating demand, is the most important statement about the demand-supply relationship in classical economics.^[2] The economic policy advocated by Say's Law is basically characterized by *laissez-faire* and non-intervention and emphasizes the absolutely dominant role of the market, which was pursued by the primary capitalist countries in the early 20th century.

The Great Recession, 1929-1933, seriously challenged economic policies which were based on classical liberalism. Different from the automatic market clearing emphasized by Say, Keynesianism, which is based on the theory of "Scarcity of Effective Demand," gradually became the prevailing macroeconomic policy in capitalistic countries. Keynesianism, with demand management at its core, emphasizes the state's interference and control over the economy. In practice, through a series of economic policies characterized by demand management, the "New Deal" which began in 1933 successfully handled the U.S. economic crisis.^[3] After the Second World War, Keynesianism economic policies gradually became common macroeconomic tools adopted by capitalistic countries.

In the 1970s, the "stagflation" phenomenon, the universal coexistence of high unemployment and inflation, caused Keynesianism to be widely questioned, because Keynesian economic policies with "demand management" acting as the core were regarded as the primary reason for the "stagflation" phenomenon, and the liberal economic school thought the state's interference was the main cause for stagflation because it inhibited market vitality. So the opinions of

supply-side economics represented by Mondale and Laffer once again drew people's attention and became the theoretical foundation for the economic policies of the Thatcher and Reagan administrations. The economic policies of the Reagan administration, known as "Reaganomics", include supporting free-market competition, loosening government's control over enterprises, lowering taxes and public expenses, balancing budgets, and emphasizing the control of the money supply against inflation. Generally speaking, the policy ideas of "Reaganomics" succeeded.^[4] However, the U.S. financial deficit continued to deteriorate during Reagan's administration, which was a norm in the U.S. economy that continued till the middle of the 1990s. At the same time, income distribution turned worse.

It should be noted that the policy objectives of supply-side economic theories on which "Reaganomics" were based and "supply-side structural reforms" emphasized by China are similar, namely, to unleash economic vitality and to promote economic growth. But there are significant differences in policy objectives and the development environment between "supply-side structural reforms" and "Reaganomics".

The policy objectives of "Reaganomics" give top priority to curbing inflation.^[5] To a great extent, the "stagflation" at the end of the 1970s in the U.S. economy was related with the rise of energy prices shocked by oil supply and U.S. military spending which caused the coexistence of the stagnation of economic growth and inflation. At present, the inflation pressure is very low in China,^[6] but structural overcapacity is severe, which distorts the resource allocation. In addition, the Chinese economy is slowing down, but it still remains strong in general. This is quite different from the negative growth of the U.S. in 1980. Maintaining strong growth creates objective conditions for

supply-side structural reforms.

There is a big difference between our current economic structure and the U.S.' during the Reagan era. In 1980, the urbanization rate, the added value of the service industry, and the service employment percentages were respectively 73.74%, 63.57% and 65.70%. These indexes are signs of developed economies, while in China the urbanization rate was 54.41% and the added value of the service industry accounted for 48.2% in GDP while the employment percentage was 40.6% in 2014, which is still in the stage of middle income.

These differences demonstrate that the policy measures of our supply-side structural reforms cannot directly copy Reagan's economic policies of the early 1980s. The policy measures of "Reaganomics" highlight tax reduction (especially tax reduction for the wealthy) and deregulation, and then solve the "stagflation".^[7] Taking the transformation of the economic development pattern and the economic restructuring as the core issues, the Chinese supply-side structural reforms are designed to improve total factor productivity by enhancing the adaptability and flexibility of the supply structure.

In this sense, there are both short-term tasks and long-term strategies in Chinese supply-side structural reforms; thus we should prepare for a long fight and organized battles of annihilation in key areas. In the short term, we focus efforts on the five tactical tasks of "cutting overcapacity, destocking, deleveraging, reducing costs, and identifying growth areas" as the core. For the long term, supply-side structural reforms shall take the transformation of the economic growth pattern as the target, especially to change development ideas and carry out the five development concepts of "innovation, harmonization, green, openness, and sharing".

Overall, there are essential differences between our supply-side structural reforms and the economic policies proposed by the Reagan administration which are based on the supply-side economics in policy backgrounds, policy objectives and measures. So, when carrying out supply-side structural reforms, we should clarify some errors in theory and practice, and be aware that directly copying the historical experience of the U.S. is undesirable. Different economic ills should be dealt with by different policy prescriptions, and it is a basic starting point for China to implement supply-side structural reforms.

2. The significances of promoting supply-side structural reforms in China

First, supply-side structural reforms are prerequisites of the economic new normal. At present the economy is plagued by "supply malfunction" characterized by structural overcapacity. Since the 12th Five Year Plan, economic growth has declined significantly, and the ostensible reason is "inadequate demand," while the actual reason is "supply malfunction" resulting from the disconnection between supply structure and market demand. For one thing, some industries represented by iron and steel have serious overcapacity and inefficient resources allocation; for another, with the limitation of supply-side, Chinese residents' effective demand cannot be satisfied, and the disconnection between domestic demand and domestic production is increasingly apparent.^[8] If the "supply malfunction" cannot be effectively solved, simply "expanding domestic demand" will inevitably add difficulty to long-term restructuring.

In fact, during the 12th Five Year Plan period the supply-side structural change was significant.

The percentage of tertiary industry in GDP in 2010 was 44.2%, up to 51.6% in the first three quarters of 2015. The fact creates favorable conditions for supply-side structural reforms in the context of the economic new normal, and how to do well in the reforms becomes important.

Second, supply-side structural reforms are required to assist demand-side restructuring. The objectives of supply-side structural reforms are to resolve overcapacity and to promote effective supply for the demand-side. So, supply-side structural reforms cannot be separated from the demand-side. We should actively adjust the supply-side through innovation to achieve the goal of leading the demand-side, to form the "balance of supply and demand."

Overall, the demand-side structural changes were far behind supply-side changes in the 12th Five Year Plan period. Among them, the percentage of gross capital formation in GDP dropped slightly, from 47.2% in 2010 to 46.1% in 2014. The percentage of residents' consumption needs in GDP increased from 35.9% in 2010 to 37.7% in 2014. Also, the positive effect of net exports of goods and services on overall economic growth was very limited.^[9] If the supply-side reforms are not thoroughly instituted, demand will decline and an overstock condition will result from the "imbalance between supply and demand". If this situation cannot be effectively abolished, it will become a constraint to economic growth and will influence employment growth and rising income, which will then influence the contribution of resident consumption on economic growth and will restrict long-term demand-end structural transformation.

Third, supply-side structural reforms conform to the objective requirements of promoting urban development. In China, the urbanization rate reached 54.77% in 2014 and as estimated it

will reach about 70% by 2030. Urbanization is the fundamental driving force behind economic structural changes and it will influence economic growth from both the supply-side and the demand-side. From the perspective of supply-side, the process of urbanization is the process of changing the supply structure of the labor force, with relocation of labor among different departments; from the perspective of the demand-side, rapid urban development not only generates huge investment demand, but also promotes economic growth through increased resident consumption.

In the promotion of urbanization, the economic structural changes in China will outstandingly display two long-term features: From the demand-side, the proportion of resident consumption is rising, and hopefully the proportion will reach 60% by 2030 (the proportion was 37.7% in 2014), forming a growth pattern with consumption as a major driver; from the supply-side, the proportion of tertiary industry is rising, and is estimated to reach 65%-70% by 2030, basically due to growth in the service industry. How to promote the population transfer with industrial development and how to accelerate industrial development with demand promotion in the process of urbanization are not only demographic problems, but also priorities for supply-side structural reforms in China.

Fourth, vigorously implementing supply-side structural reforms is a necessary requirement for the transformation of economic growth patterns. Based on economic growth accounting, economic growth is a consequence of capital accumulation (influenced by the savings rate), labor input (including the quantity and quality of labor), and the total growth in factor productivity. China has maintained the savings rate at nearly 50% since 2007, which is one of the highest savings rates in the world. It is expected, however, that with

economic restructuring and an aging population, the savings rate will decline. Maintaining the savings rate above 35% is highly probable even though it is still a high rate when compared to other countries. If the 35% rate is maintained the proportion of capital formation in GDP can still maintain its high level. In this sense, investment will still be an important driver for Chinese economic growth. The sustained high investment rate certainly increases the capital output ratio (capital stock/GDP). According to estimations, the current Chinese capital output ratio went up to 3.8 in 2013 from 2.0 in 2000, which reflects the Chinese economy being increasingly capital intensive during the period. Additionally, the ratio also reflects capital efficiency, the higher the ratio the lower the capital efficiency. So, investment efficiency is the key to converting the high savings rate into a high growth rate. Although investments belong to the demand-end in the short term, its long-term influence on economic growth belongs to the supply-end. Investments determine the sustainability of economic growth. In this sense, the efficiency of capital markets determines whether savings can be converted into effective investments which then promote effective supply.

Regarding labor input, an aging population will reduce the labor growth rate, which may even become negative. In 2010, China entered a declining period of demographic dividend, and "demographic dividend" has disappeared since then.^[10] As for labor quality, Chinese education development has greatly improved labor quality. Between 2010 and 2014, the proportion of people with college degrees or above rose from 8.75% to 11.01%, an increase of 2.26%, and the proportion of people with a senior high school education (including technical secondary school education) rose from 13.72% to 16.35%, an increase of 2.63%, which exceeded the declining rate of the working-

age population. This indicates that the Chinese labor market is entering an "education dividend period" and that the decent of the "demographic dividend" is more than offset by the "education dividend."^[11] Converting the "education dividend" into a "human capital dividend" is conditional, and highly depends on the improvement of allocation efficiency of new capital and whether innovation driven growth pattern can be realized. If this does not happen the "education dividend" will be wasted. Furthermore, the transference of labor employment from primary industry to secondary industry and tertiary industry also enhances labor productivity.

So, based on the future trends of the savings rate and labor quantity, simply relying on the growth pattern of increasing capital investment and labor quantity will not sustain high-speed growth. Sustaining high-speed growth must be based on improving the contribution of total factor productivity to economic growth. For one thing, it depends on the increase of factors' allocative efficiency, giving full play to the potential advantages of the "education dividend" and enhancing the efficiency of capital investment; for another, it depends on technical progress and the promotion of innovation, and these two aspects belong to supply-side. In this sense, improving the efficiency of capital markets is at the core of supply-side reforms, which can provide favorable conditions for releasing the "education dividend" and labor allocation efficiency, and then increase the contribution of total factor productivity to economic growth to maintain high-speed growth.

3. How to promote supply-side structural reforms

How to promote supply-side structural reforms becomes particularly important after having a

scientific understanding of their importance. We think there are two things that must be done to promote supply-side structural reforms. The first is to do well in the hybrid operation of "addition, subtraction, multiplication and division" . The second is to solidly implement the "five policy pillars".

About the hybrid operation of "addition, subtraction, multiplication and division: "

(1) The core objective is "addition". The core objective of supply-side structural reforms is transforming the outdated economic growth pattern in which investment demand serves as the core. The so-called "addition" is to optimize the supply structure, enhance efficient supply capability, add effective investment, actively explore all kinds of PPP (Public-Private-Partnership) patterns, invest in major infrastructure, accelerate the urbanization rate, and boost consumer demand. These actions will create a more dynamic "balance of supply and demand" .

(2) The primary objective is "subtraction". Structural overcapacity is China's new normal, and how to solve this problem is the primary objective. The so-called "subtraction" is to settle structural overcapacity and to eliminate outdated capacity through rational resource allocation, reducing enterprise costs and institutional factors which hinder economic vitality, limit government's unreasonable interference in business enterprises, and bring subject activity into play. By encouraging "addition" and "subtraction" we can promote effective supply while eliminating outdated capacity.

(3) The innovation objective is "multiplication". Supply-side structural reforms cannot do without innovation. For the long term, constructing innovation driven growth patterns is necessary." Multiplication" is to pull the multiplier effect of development through unleashing innovation,

creating a sound environment of entrepreneurship, carry out an "internet+" action plan, develop technology and application of IOT, improve the density of education spending, R&D spending, human capital investment, environmental protection investment, economic geography, and infrastructure. Furthermore, we can apply multiplication to strengthen global resource allocations, deeply enter into the global industrial chain, value chain, and logistics chain through opening to the outside world. Constructing new economic development patterns with innovation serving as the core we can realize double growth of economic aggregate and economic quality.

(4) The minimum objective is "division". Supply-side structural reforms take improving economic development quality as guidance, so it is necessary to avoid development risks." Division" is to avoid financial risks, ecological risks, environmental risks, energy risks, resource risks and other risks in the process of development as planned through macroeconomic control systems with the 13th Five Year Plan as the core. We must avoid falling back on "old practices" which lead to capitalist economic crisis. We must also avoid falling back on "old ways" of capitalist "black" development.

Next, carry out the "five policy pillars".

Carrying out the "five policy pillars" is the precondition of doing well in the hybrid operation of "addition, subtraction, multiplication and division".

(1) Stable macroeconomic policies create a steady financial and monetary environment. Further policies should implement tax breaks, reduce enterprises' burden, construct new local finance and taxation systems, and properly expand finance and taxation sources. We must also promote the steady monetary policy, and at the same time add more flexibility. For one thing, adapt to the new international monetary system

after RMB entering into SDR. Also, effectively face the challenge of the exchange rate for the U.S. dollar' s appreciation, and perfect the exchange formation mechanism and create a sound financial and monetary environment for structural reforms.

(2) Precisely make industrial policies and exactly orient structural reforms. Starting from the supply-side, further optimize supply structure with accurate industrial policies, promote agricultural modernization to build a new countryside with modern agriculture at its core, push the development of high-end manufacturing industry relying mainly on technology and innovation, put capital accumulation and talent accumulation into practice, eliminate outdated capacity, perfect industrial structure to accelerate the formation of a powerful manufacturing country, push the development of the service industry, especially the high-end service industry represented by the financial and manufacturing service industries, and organically combine with the industrial system.

(3) Make flexible micro-policies, perfect market environments and stimulate enterprise vitality and consumer potential. Further deepen reforms, eliminate institutional factors which hinder economic development, put the leading role of the market into practice, create a more relaxed management and investment environment for the market, and boost confidence toward markets and enterprises. For the state-owned enterprises, accelerate structural reforms, enhance resource allocation efficiency and let them play a leading role. For private economy, eliminate institutional barriers, put the advantages of private economy in technology and provide funding to support growth, create effective supply, enhance supply quality, and expand consumer demand.

(4) Carry out reform policies and push harder to put the reforms into practice. On the basis of

national co-ordination, make full play of local initiative and introduce suitable policies with the full consideration of local differences. Emphasize effectiveness, adjust now and again in reforms, dare to overcome difficulties and challenges, continuously improve supply-side structural reforms from both policy level and implementation level. Introduce a third party evaluation and supervision mechanism, and evaluate the implementation of reforms with more scientific methods.

(5) Make service quality the foundation and defend people's livelihood principles. Enhance service quality by improving human capital levels through improvements in all forms of education at all levels, expand consumer demand through improving the social security mechanism including poverty alleviation. Overall, do well in social policies, guarantee basic public services, and starting from the construction of people's livelihood, put the effectiveness of supply-side structural reforms into practice.

4. Conclusion

In the context of the economic new normal, the Party Central Committee proposed supply-side structural reforms which can be regarded as major strategic innovations that actively adapt to the economic development environment and actively lead economic development patterns. The purpose

is to transform the economic growth patterns which relied on factors and to make innovation the new driver of economic growth.

Through analyzing the basic national conditions in the context of the economic new normal, this article makes scientific evaluation and answers a major theoretical issue about why "promoting supply-side structural reforms could be regarded as the major innovation that adapts to and leads the new normal of economic development, as the active selections that adapt to comprehensive power competition after the international financial crisis, and as necessary requirements that adapt to the new normal of Chinese economic development." This article also proposes the hybrid operation of "addition, subtraction, multiplication and division" and the "five policy pillars" for implementing supply-side structural reforms.

The four kinds of relationships, namely, the relationship between short-term measures and long-term objectives, the relationship between tactical goals and strategic goals, the relationship between enhancing supply and expanding domestic demand, the relationship between macro-control and the administrative simplification are crucial to supply-side structural reforms. Only by vigorously pursuing multiple dimensions and multiple levels at the same time and by combining a series of policies, China's economic long-term structural problems can be solved.

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- [1] On November 17, 2015, at the meeting of preparing Program of "13th Five Year Plan" Li Keqiang emphasized that push at the ends of supply-side and demand-side to make the industry promote toward the high-end. On November 18, 2015, Xi Jinping mentioned "the supply-side reforms" again in APEC and pointed out that to solve the deep-seated problems of the world economy, greater efforts should be made to push structural reforms, to make the supply system adapt to the demand structural variety.
 - [2] In classical economics and neoclassical economics Say' s Law is significant and provides theoretical basis for "general equilibrium theory". Neoclassical economics emphasizes the absolute efficiency of market and proposes that the market is able to automatically clear, reaching Pare to Optimality.
 - [3] The content of "New Deal" includes: rectifying financial system, rebuilding bank credit system and dropping the gold standard; subsidizing farm to stabilize prices of agricultural products; creating employment and promoting consumption through "welfare-to-work" and public works; perfecting social insurance system and drawing up *Social Insurance Law* and acts related to labor protection; reforming administrative organs and emphasizing functions of state budget.
 - [4] In Reagan' s first year in office (1981) the inflation rate was 10.35%, which declined to 3.55% at the end of his first term (1985) and it remained at a moderate level during his second term. Except the negative growth in 1982, the economic growth rate maintained at 3.5% in 1983 -1989 and the growth level is better than that in 1974 -1980.
 - [5] The U.S. economy entered into continued high inflation in 1973-1981, during which the average inflation rate reached 9% and it is a period the inflation rate remained at a high level and the inflation lasted for a long time after Great Depression.
 - [6] For example, Consumer Price Index (CPI) has maintained below 3% since 2012, and Producer Price Index (PPI) has taken on deflation for 45 consecutive months since March, 2012.
 - [7] In 1980, the marginal tax rate of individual income tax reached up to 70%, and enterprise tax rate was 46%. Compared with the economy from the middle of 1970s to 1980s, the U.S. economy had noticeable improvement in Reagan area, but many analysts suggested that the situation cannot completely attribute to the economic policies of Regan.
 - [8] For example, the rapid growth of travelling abroad, overseas shopping, overseas purchasing and high-end consumer goods show that domestic consumer goods manufacturing enterprises cannot meet the ever-growing needs of the people toward high quality goods
 - [9] Overall, the world economy recovery is sluggish, so the net pulling effect of external demand to China' s economy relatively weakens. From import and export data in the first three quarters of 2015, the import and export showed negative growth, especially the total import declined 15% from the year earlier (the total export declined 1.8%). It was the expansion of trade surplus, but the expansion is a kind of passive descent, because the less import is the main reason for the descent of trade surplus.
 - [10] The proportion of working-age population declined from 74.5% in 2010 to 73.4% in 2014, with a drop of 1.1 percentage points.
 - [11] In 2014, the gross enrollment rate of senior high school education and higher education reached 86.5% and 37.5%, which are obviously higher than those in middle-income and high-income countries (respectively, 76% and 34%), and there is greater difference when compared with developed countries. In 2001-2013, the number of Chinese college graduates, post-graduates and returned students respectively reached 46.475 million, 3.698 million and 1.321 million; in 2000, the number of people with college degree or above reached 45.71 million and in 2012, the number reached 133.56 million which is 2.29 times larger than that in 2000. It must be said, Chinese human capital is the foundation to support the improvement of innovation ability. According to statistics of the Global Innovation Index in 2014, published by University of Connecticut, Chinese education development level ranked 18th among 143 countries and ranked first among middle income countries.