

From Supply School to Supply-side Structural Reform: A Review of Supply-side Theory Developments

Lu Li

School of Public Affairs, University of Science and Technology of China, 96 Jin Zhai Road, Hefei 230026, China

Abstract

Reform of the supply side is proposed for the first time, but “supply”, “supply-side”, and “supply management” are not. Early 18th century, the French economist Say put forward the most distinctive idea of supply management - Say's law, which was considered as the theoretical source of the supply economics. As with the development track of most economic theories, the Western Supply School economics has also been continuously developing under the influence of the development and evolution laws of the negation of negation that are involving in “wave advance” and “spiraling”. In the 1980s, related theories of the supply economics were introduced into China, and Chinese scholars carried out a series of reflections and innovations on it based on theory and practice. With the "Supply-side structural reform" proposed, supply theory is prevalent again. Connecting the supply-side with reform is a unique meaning given by China. With China's practical exploration and theoretical development, it also has rich time connotation, and the supply-side economics is standing out. This paper teases out the past and present of supply-side theory systematically and provides a review of the latest research on it.

Keywords: supply-side school, supply-side structural reform, supply theory, review

1. Theory Origin: The Western Supply School Economics

1.1 Say's Law Creates a Pioneer

Western economics has a long history of supply. Dong-qi Chen (2016) pointed out that before the emergence of Keynesianism, even the whole western economics theory emphasized supply, thinking that supply is more important than demand. Zuo-jun Li (2016) holds that the related theory of supply-side reform is as old as economic history. From the perspective of economic ideology and economic history, supply management policy is dominant in history. The most important source of thought for the supply school is the classical liberal economics thoughts advocated by French economist Say (1767–1832) in the early 19th century. At that time, he described the relationship between supply and demand in the book “introduction to political economics”, and put forward a famous point of "supply creates its own demands". After the summary of Ricardo and Muller, Say's political economy thoughts were widely spread and influenced the development of the entire history of economic thought, especially the classical liberalism. His view also been known as “Say's Law” by descendants.

"Say's law" is closely associated with France capitalist economy. At that time, France was a capitalist country with a strong financial capital and a rich purchasing power. Meanwhile, its inflation, plagued by years of war, is experiencing a serious economic crisis and a recession. On the one hand, the economic situation in France has caused a sharp devaluation of the currency of the public, and the real purchasing power has declined. On the other hand, people can't buy goods to meet the normal consumption because of the shortage of products in the market. In the face of the situation, Say argues that France's priority is not to curb or stimulate demand, but to increase production and supply. By the increase of effective supply, we can expand the demand for raw materials, reduce unemployment, increase the income of the public, and increase the demand indirectly, namely, "supply creates its own demand".

"Say's law" emphasizes the role of market and free competition. It is believed that under the influence of the "invisible hand" of the market, the aggregate supply and demand of society will be adjusted spontaneously to balance. The classical liberal economic thought represented by say was gradually accepted by major capitalist powers such as English, French and American, and showed strong effectiveness before the 1930s.

1.2 Inheritance and Development of Supply Economics

"Say's law" has been accompanied by criticism. Sismondi believes that laissez-faire competition will lead to extremely unfairness. Malthus, in contrast, made a distinction between demand and supply, and thought demand was more important. Keynes, who was a master of Malthus, had almost completely repudiated the "Say's law".

In 1929-1933, the United States experienced the most notable economic crisis in history, creating a decade of depression. The root cause of it is "overproduction", which is impossible in the classical liberal economic system represented by "Say's law". At this time, John Maynard Keynes was born and launched the "Keynesian revolution" in response to the depression. He argued that demand, not supply, was the key of the economy and the government should actively intervene economic activity according to the situation of economic operation, from "night watchman" to "adjust". When the economy is declining, tax should be reduced to increase

government investment; When booming, increased to maintain the relative balance of the economy. Influenced by the idea of government intervention and Roosevelt's "New Deal", Keynesianism mounted on the stage.

In the 1970s, western developed countries such as the US and the UK were in a "stagflation" crisis, while the Keynesian macro-control broke down because of the inflation and high unemployment. At this time, the supply-side school believed that the root was insisted on demand and neglected of supply. Then, the supply-side school reappeared on the historical stage, and inherited and developed under the friction between the "mainstream supply-side school" represented by Arthur Laffer and the "moderate supply-side school" represented by Martin Stewart Feldstein.

There has been a heated discussion about the supply school, and more scholars think that the differences in some branch views are the friction and dissension under the same principle. According to the study, this paper has organized the generalities and differences of both ideas (see table 1).

Table 1. The generalities and differences between Laffer and Feldstein's thought

	Generalities	Differences
Arthur Laffer	1. Supply side 2. Recognize the market self-regulation mechanism and oppose excessive state intervention.	1. The "Laffer curve", the tax rate is maintained at a reasonable level. 2. The "Say's law", the idea of classical liberalism 3. To restore the gold standard of monetary policy
Martin Stewart Feldstein	3. Advocate for a tax cut 4. Macro microanalysis, more microanalysis	1. The tax rate is not isolated; it criticizes the "naive Laffer curve" 2. Keynesianism will continue to work. 3. Disapproving of the gold standard, by slowing the growth of the money supply, to curb inflation.

The main points of the supply-side school is that the only source of economic growth is on the supply side, and tends to reduce tax and government's economic intervention. However, some scholars criticized it because the theoretical system was not formed. Undoubtedly, its policies have effectively relieved America's "stagflation", returning to the stage with the "economic recovery plan" put forward by Ronald Reagan in 1981.

1.3 The Spiral Development of the Supply School

The supply-side school shows a spiral development path of "negation of negation". Peng Sun (1998) argued that the supply-side school becomes the negation of negation of the Say's law. Kang Jia (2014) has developed its development curve, believing the existence of the second round of the "denial". The first one can be summarized as the "Say's law - the Keynesian - supply-side school" and the second characterized by "supply-side economics - the restoration of the Keynesian-supply management". It is believed that the two rounds of "negation of negation" can better summarize the development of western supply school economics.

At the beginning of the 19th century, Say proposed that "supply creates its own demand". During 1929-1933, the Keynesian revolution and the Roosevelt's New Deal were mutually effective to deny "Say's law". In the 1970s and 1980s, the United States was in the "stagflation" crisis. The supply-side school, represented by Laffer and Friedman, reaffirmed the correctness of "Say's law", thus the complete path of the first round of "negation of negation" was formed.

The second round of "negative of negation" begins with the revival of Supply-side economics. The generalities between Supply-side economics and Reaganomics make the economic recovery gradually, however, until the end of the second term in the Reagan administration, the US economy is still growth slowly. America's situation caused the public's deputation, the Keynesianism waves again. By the early 21st century, the reverse and countercyclical operations of Keynesian were still dominating mainstream economics. During the global financial crisis of 2008, the American government adopts the "supply management" and a series of policy application mark the second regression of Supply-side economics.

By the two rounds of "negation of negation", we can find that the western supply-side economics shows spiraling. From the initial "Say's law" to "supply school" to "supply management", the theoretical research has been gradually deepened. We can grasp the core meaning fully in the source of the inheritance and development of the supply-side school.

2. Theoretical Innovation: China's New Supply Economics and Supply-side Reform

2.1 Say's Law Creates a Pioneer

In the late 1980s, several works were introduced to China. The book "the supply-side revolution" by Paul clay Roberts in 1987, described the economic theory and practice of supply-side economics systematically. Chinese scholars paid attention to the supply-side in 2008.

After the global financial crisis in 2008, some officials and scholars began to consider the demand management and the "troika" theory. They proposed that China should connected the macro-control with the supply side management. The domestic scholars, especially the new supply-side economics school, having done a lot of research on it. There are two major forces: One is represented by Kang Jia, the former director of the

finance research institute, and another is Tai Teng, president of the Wanbo economic research institute. Kang Jia established the "China new supply economics research group" in 2011 and published the article "China needs to build and develop new supply economics with reform as the core", which marks the arrival of China's new supply economics. In March of the same year, Huaxia institute was established. "The new supply-side declaration" was issued by Tai Teng in 2011, proposed a relatively complete theoretical system in 2013. On December 8, 2013, the two forces gathered together, holding the third plenary session of the 18th CPC central committee, which showed that Chinese scholars began to think and innovate Chinese economic theory and policy design based on economic theory and Chinese reality. Since then, more than 100 economic professionals in China have published a large number of monographs, papers, research reports, etc. The new supply-side economics school is in the ascendant.

The new supply-side economics school represented by Kang Jia and Jing-chun Su (2016) is based on the theoretical framework of "five integration". Its main research area is the relationship between demand and supply. "Eight pairs" and "five equal" are proposed on the basic policy propositions.

Tai Teng and Bi Fan (2016) have redefined the economic cycle from the perspective of supply. They divided a complete economic cycle into: formation stage, expansion stage, maturity stage and aging stage. The reasons for the recession are the aging of the supply structure, the supply constraints and the supply restraining. Furthermore, a new theory of "new supply creation demand" was established.

2.2 The Supply-side Reform Practice Has Endowed the Supply-side with Distinct era Connotation

On November 10, 2015, the "supply-side structural reform" was put forward by Xi Jinping for the first time. He pointed out that "while expanding aggregate demand appropriately, we should strengthen supply-side structural reform and improve the quality and efficiency of the supply system." Since then, boosting the supply-side reform was put forward on various occasions. As far as current (February 2018), President Xi Jinping has published 25 important remarks concerning it. The important meeting also attaches great importance to the reform of the supply side. It seems that the central government has begun to approve supply side ideas, and gradually regarded it as the country's major economic policy. Supply-side structural reform has become the mainstream of China.

According to the government's public records and the relevant reports, this section organized the exploration and the main arguments from November 10, 2015 to February, 2018.

In view of China's practical exploration, although the "supply-side reform" has influenced by western economics, it is fundamentally different from the western supply-side theory in theoretical background and basis, policy means and mechanism, especially the thinking method.

As President Xi said, "The supply-side structural reform is different from western economics, and we can't regard it as an example of the western". In a word, the supply-side reform given a distinctive era feature by China is rooted in the reality of China (see table 2).

Table 2. China's supply-side reform is compared with the western supply-side school

	China's supply-side reform.	Western supply-side school
Theoretical background	Three stage	"Stagflation" crisis.
The main idea	Supply side and demand side shall not be disregarded. Deal with market and government relations.	The free market Stimulate the supply
Policy proposition	Through the five development concepts of "innovation, coordination, green, openness and sharing" The five pillars of policy: "macroeconomic policy should be stable, micro-policies should be kept alive, industrial policies should be implemented, reform policies should be implemented, and social policies should be carried out."	Tax cuts Privatization of the real economy. Reduce government size
Implementation mechanisms	Structural problems, institutional mechanisms, structural optimization and innovation are promising to unleash potential	The economic structure and system are relatively mature and rigid, and the flexibility of structural adjustment is insufficient and the release potential is difficult.
Thinking method and philosophical foundation.	Political economy and materialist dialectics.	Liberal economic thought

2.3 Supply-side Reform is the Modern Economic Theory of China

Since the "supply-side structural reform" was put forward, Chinese scholars have been paying more and more

attention to it. At the moment, "there are many different explanations for it in the world of academia and the media", said by Yi-fu Lin, "we should committed to our own theoretical innovation. This section combs the current viewpoints in order to correctly grasp and know the supply side. It focuses on three areas: First, connotation and essence ; Second, background and necessity; Third, implementation path. In short, what is supply-side reform, why, and how.

2.1.1 Connotation and Essence

Many scholars given the interpretations .For example, Yong-zheng Zheng (2015) believed that the most important is to have a new system supply. Feng Lu (2017) argued that the reform is the key measure, following the rules of economic cycle and structure adjustment, using the market mechanism to boost the double adjustment. The key point of supply-side reform is based on market system. The supply-side reform has double connotations, which is to accelerate the marketization in key areas and strengthen mechanism of the market.

Zuo-jun Li (2016) believed that the supply-side reform was "the reform of the institutional contradictions of economic structural problems". There are two levels of supply-side reform, the first floor is "to deal with the relationship between the government and the market"; The second floor is "to solve the institutional contradictions at a deep level". He also stressed that it should be aimed at "promoting comprehensive reform of the economic structural problems". Mainly includes the reform of the subject, the elements and the structure. And it represents four features: emphasis on market, efficiency, long-term and system.

2.1.2 Background and Necessity

Most scholars argued that the supply-side reform is closely related to the current situation of China's economic development, and it has unique national conditions, background and tasks. After more than 30 years of high-speed growth, China's economic gone into a new normal. In terms of content, it's called "three stage superposition," which is the "economic growth shift," "the structural adjustment period," "the early stage of the period of stimulus"; In terms of the phenomenon, it is seen as "four drops of one rise", namely, the decline in economic growth, the decline in industrial prices, the decline in the earnings of real enterprises, the decline in the growth of fiscal revenue and the occurrence probability of economic risks. The main contradiction of supply and demand lies in the supply side. It is necessary to promote supply-side reform in order to transform demand and supply mismatch into structure and supply and demand balance.

2.1.3 Implementation Path

Scholars have discussed it from different angles. The scholars, led by Zuo-jun Li, put forward the detailed implementation measures. They believed that it is a systematic project, which requires targeted countermeasures from seven aspects, such as cultivating the main body, increasing the input of factors, institutional change, structural optimization, factor upgrading, adjusting stock and optimizing increment, etc. On the contrary some scholars, led by Jing-lian Wu, are more concerned about the logic. They points out that it is effectively the resource configuration. Cost reduction, leverage to be motivated and creative by entrepreneurs and employees. Therefore, it is necessary to push forward the supply-side reform from the two aspects of institutional environment and subject reform. In order to create a good system environment we need to improve the architecture. At the same time, the government, corporations and society are all in the process of reform. He-lin Pan (2016), and other scholars emphasized the "structural" is the focus of the reform of the supply side. They think that tax cuts can provide wider space for "structural" optimization and the PPP mode can improve the efficiency of the supply of public products and benefits.

References

- Dong-qi Chen, (2017), *The Road to the New Growth: An Outline of Supply-side Structural Reform*. Beijing: Chinese People's Publishing Press, 80-81
- Zuo-jun Li, (2016), *Supply-side Reform What Reform? How to Reform*. Beijing: China Machine Press, 44-45
- An-gang Hu et al. (2016), *The Strategic Innovations Towards Adapting to and Leading China's New Normal Status*, *Journal of Tsinghua University*, 2,17-22
- Zhi-ying Liu et al. (2016), *Supply-side Reform*. Beijing: Tsinghua University Press, 28-29
- Lu Li et al. (2017), *The Research of Graduate Education's Regulation Mechanism on the Review of Supply-side Structural Reform*, *Journal of Degree and Graduate Education*,2,68-72
- Kang Jia, Jin-chun Su (2016), *Supply of Reform China New Supply-side Economics*. Beijing: China CITIC Press, 54-62
- Jin-lian Wu et al. (2016), *Reading Supply-side Reform*. Beijing: China CITIC Press, 30
- Chinese Academy of Governance (2016), *China Supply-side Structural Reform*, Beijing: Chinese People's Publishing Press, 19-20
- Tai Teng, Bi Fan, (2016), *Ten Remarks on the Supply-side Reform*. Beijing: Eastern Press, 4-5
- Long Chen, (2016), *Supply Side Reform: Macro-background, Theoretical Basis and Implementation Path*, *Journal of Hebei University of Economics and Trade*, 5, 18-21
- He-lin Pan, (2016), *From Demand to Supply-side Reform* Beijing: China Social Sciences Press, 61