

# International Experience of Supply-side Reform and Its Enlightenment to China

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**Abstract**—In recent years, the sustained downturn of China's economic growth has brought about structural contradictions, and the way to continue stimulating demand cannot effectively promote the economy. In 2015, the central government formally put forward a new policy of supply-side reform. In this paper, by analyzing and comparing the specific measures, effects and key factors of success or failure in the process of supply-side reform in the United States, Germany, Argentina and Japan, and considering the problems arising in the earlier stage of supply-side reform in China, it is put forward that from the perspective of combining supply side and demand side, market-oriented measures should be replaced by administrative measures, and long-term planning and short-term regulation should be adopted to promote the smooth development of supply-side reform in China.

**Keywords**—Supply-side reform; demand side; industrial structure; tax reduction and burden reduction; human capital investment

## I. INTRODUCTION

After 40 years of reform and opening up, the growth rate of China's economy is obvious to all over the world. At the same time, the government is constantly adjusting policies and reforming according to the stage of China's economic development. However, in recent years, the economic growth has slowed down. The government failed to effectively boost economic growth by continuing to expand domestic demand, stimulating consumption, increasing investment and encouraging exports.

In view of this, the central government formally proposed the policy of supply-side structural reform in 2015. Supply-side factors mainly include labor force, land, capital, system and scientific and technological innovation. The reform of supply-side structure is to reduce ineffective supply, expand middle and high-end supply, optimize the allocation of resources, alleviate the imbalance of economic structure, and realize the upgrading of industrial structure from the perspective of improving supply quality, so as to better meet or even stimulate demand and make the economy continue to develop healthily.

In fact, China is not the first government in the world to propose supply-side reform.

Many developed countries and regions have experienced periods of rapid economic growth. When economic growth stagnated and continuing stimulating demand became ineffective, they all tried the policy of supply-side reform.

However, due to the different implementation means and methods in different countries, the effect of the reform was different from it in the end. Therefore, it is of great significance to analyze the successful experience of these countries and draw lessons from the failure of reform for China to successfully promote supply-side reform.

## II. DIFFERENT PATHS OF SUPPLY-SIDE REFORM FROM THE PERSPECTIVE OF INTERNATIONAL EXPERIENCE

### A. Supply-side Reform in the United States

After World War II, Roosevelt's New Deal in 1933 and Johnson's Great Society in 1967 constantly stimulated the American economy from the demand side. In these reforms, government-led investment has played a certain role in stimulating economic growth and employment. Although it eased the economic crisis and social contradictions in the short term, it accumulated a huge fiscal deficit in the long run. When Reagan came to power, it faced a 31% fiscal deficit, with inflation rate as high as 13.5%, and GDP as negative growth.

Owing to the ineffectiveness of continuing to stimulate demand, in 1981, the U.S. government proposed a supply-side reform to improve supply in three aspects. The first is the deregulation of the government.

All the control plans should carry out economic benefit analysis and evaluate the impact on society. The second is to control the money supply, curb inflation, stabilize the price level, and stimulate domestic industrial competition by expanding imports. The third is to reduce taxes and burdens, provide enterprises with various preferential tax policies, reduce the enterprise income tax by 13%, improve the enthusiasm of enterprise investment and innovation, and reduce the personal income tax by 23%, and enhance the enthusiasm of individual labor [1].

It is worth mentioning that Reagan's New Deal seems to have failed to adopt reform measures in terms of human capital investment and liberating financial constraints. In fact, these two policies were implemented during the period of Roosevelt's New Deal and Johnson's Great Society. Meanwhile, the policies of deregulation and encouraging innovation in Reagan's New Deal indirectly promoted product innovation and mode innovation in the financial industry.

In terms of results, in the short run, Reagan's supply-side reform has helped the economy to recover, curbed inflation and increased employment. In the long run, it has brought

sustained growth driven by market-led innovation. Inflation dropped from 13.5% in 1980 to 4.5% at the end of 1982, and GDP growth remained above 3.5% until the end of Reagan's term, which also created a long-term economic prosperity in the United States.

From the micro perspective, its deregulation, free competition, import increase, burden reduction and tax reduction and other measures have brought about great changes to the industrial structure of the United States, such as the impact on agriculture and traditional manufacturing, and the rapid development of high-end manufacturing, service industry and financial industry.

### B. Supply-side Reform in Germany

Since the World War II, the German government has been pursuing the social market economy model of "insisting on the founding of the manufacturing industry, financial balance and appropriate intervention". With the development of economic globalization in the 1990s, a large number of labor-intensive industries have been transferred to developing countries. The cost of labor in Germany has been rising, capital and technology have been greatly outflowing, and the unemployment rate has remained high. The merger of the East, the West and Germany has led to a decline in overall income and insufficient domestic demand. In addition, excessive exchange rates have led to weak exports and overcapacity. From 1988 to 1990, Germany's trade surplus reached 273.2 billion marks, and inflation exceeded the Federal Bank's 2% warning line. By 1993, Germany's GDP growth rate fell to -1%.

Faced with the empty shell, overcapacity, structural imbalance and growth recession of German economy, the German government began to adopt rational supply-side management. In addition to reducing the tax burden and controlling money supply as in the United States, the specific measures of reform put special emphasis on the investment of human capital.

First, with dual vocational education as the guarantee, theoretical learning in universities, practical training in enterprises, universities and enterprises share the responsibility of training students [2]. By means of tax incentives, enterprises are encouraged to invest and cooperate in schools and the field of vocational education is developed, so as to guide the transformation of educational concepts and social culture and establish diversified training objectives. Second, by cutting too much social welfare, the unemployed are encouraged to strengthen their investment in human capital and actively participate in the labor market. About 27% of the unemployed no longer have unemployment benefits, and 48% of the unemployed have their benefits cut. The third is to liberalize the constraints of the labor market, lift employer's dismissal restrictions and allow flexible working system [3].

It can be seen from the above policies that, as a manufacturing and export power, Germany always takes improving the international competitiveness of its manufacturing industry as the ultimate goal in its reform policies [4]. In order to improve the quality of the

manufacturing industry, the government constantly reduces the cost of enterprises, invests in human capital for the adjustment of industrial structure and quality upgrading, reforms the exchange rate to promote export, and even escorts the entity first in the management of the financial and real estate industries.

The rationality of the German government is reflected not only in its extreme emphasis on the real economy, but also in its resolute resistance to bubble booms and financial bubbles. Firstly, the German government tried its best to promote exports with a low exchange rate and face appreciation pressure from the United States in order to actively establish the euro zone in response; secondly, it reduced the production costs of enterprises by maintaining lower wages and land prices; finally, it always maintained price stability, curbed speculation and hot money flow, and safeguarded the healthy development of the economy.

In terms of breaking financial constraints, Germany has liberated the financial constraints of small and medium-sized enterprises (SMEs) with an efficient indirect financing system. First, it established a universal banking market mechanism with high access and strict supervision to ensure that market participants do not take risks for profit and stick to serving the real economy as the core.

Second, it allowed state-owned and private financial institutions to compete with each other to promote the efficiency of financial services through market-oriented development. Third, it served the entity at a lower cost than the direct financing market by relying on the banking system's deep understanding of SMEs, especially those in local pillar industries. The relatively low average rate of return of German banks has made more resources invest in the real economy instead of overflowing into the financial sector to avoid the breeding of bubbles.

From the results of the reform, Germany's economy has recovered since 1994, and the problem of excess production capacity has been solved by increasing exports and improving product quality, and the international competitiveness of German manufacturing industry has been further enhanced by technological innovation.

### C. Supply-side Reform in Argentina

After World War II, the frequent regime changes, populism and a series of misguided economic policies led to the great economic recession of Argentina in the 1970s. In this context, the military government that was back in power formulated a "national restructuring process" plan to implement supply-side reform, including adjusting the supply side by reducing government intervention and controlling the money supply, and adjusting the demand side by increasing investment and stimulating exports. However, the combination of high interest rates and financial liberalization created speculative exposure and caused a huge influx of hot money into Argentina's financial system. Meanwhile, under the dual influence of financial bubble growth and import opening, domestic entities suffered a great blow, a large number of industrial production enterprises closed down, and the national industry fell into a serious recession. The reform in

1976 only brought 3 years of false prosperity. Subsequently, the financial crisis broke out in 1980, the economy collapsed in 1981, and Argentina formally fell into the middle-income trap.

In 1989, Argentina ushered in the second supply-side reform of democratic government. Menem's neo-liberal reform paid too much attention to liberal theory without considering Argentina's actual situation, including unbalanced economic structure, uncompetitive secondary industry, and human capital structure that could not match industrial upgrading [5].

The reform brought another short-lived prosperity and ended in the financial crisis of 2001. From the results, the reform brought about 10 years of economic growth and curbed hyperinflation. However, the extreme liberalization combined with the wave of privatization reform led to the transformation of state-owned monopoly into foreign-owned monopoly in the main economic sectors of the country, resulting in new imbalances in the economic structure. The low education level of human resources structure could not meet the development needs of transnational corporations, and domestic unemployment was further intensified, which eventually led to the absurd situation of simultaneous rise of economy and poverty.

In the case of Argentina, the short-sighted government failed to improve the fundamentals of the economy or to drive long-term growth by making reforms that take a long time to bear fruit, such as investment in human capital and tax cuts. Blind pursuit of the short-term growth regardless of economic structure, human resource structure and capital structure will inevitably lead to false prosperity.

#### D. Supply-side Reform in Japan

In the 1970s, with the rapid rise of Japan's economy, many global enterprises emerged, and Japan became a manufacturing power. Due to the excessive expansion of confidence, the authorities implemented a series of wrong reform policies, which reduced the competitiveness of core enterprises, gave rise to asset bubbles, and finally led to the financial crisis, economic collapse and long-term impact.

In terms of labor factors in the supply-side reform, due to the lack of consideration on the decline in the supply of labor caused by the ageing of the population and the artificial increase of wage level result in the substantial increase of enterprise operating costs [6]. With regard to land factors, due to the failure to curb the rise of land price, the profit rate of factories or office buildings renting land dropped. In order to make up for the production loss, the real economy further invested capital into real estate and continued to push up the price of real estate. On the money supply side, in order to subsidize the export industries hit by the appreciation of the yen, the government began to implement quantitative easing policy, which led to the decline of interest rates and induced speculation.

As the real economy cannot develop and the speculation and expectation are not restrained by the government, the overseas speculative funds and the domestic funds exiting the real economy further enter the stock market and form a

bubble. In 1989, when asset prices rose to the point that the industry could not support, the expectation of appreciation was broken and speculators lost their desire to escape, which caused panic in the market and the subsequent collapse of the stock market. The government urgently announced the regulation of real estate finance and the tightening of banks, which led to the rupture of the financial capital chain of real estate finance, the sharp decline in land prices and a series of crashes. A large number of enterprises went bankrupt overnight, and the vicious circle began. Core multinational enterprises fled, domestic employment decreased, national income declined, and population continued to grow negatively.

### III. ENLIGHTENMENT OF INTERNATIONAL EXPERIENCE ON CHINA'S SUPPLY-SIDE REFORM

History is the best textbook. Combined with the characteristics of China's economy and society, the analysis and summary of the experience and lessons of other countries in the process of supply-side reform can also bring some enlightenment for China to further deepen supply-side reform.

#### A. Keep an Eye on Changes in the Demand side and not Simply Reduce Production Capacity

The purpose of the reform is to achieve a higher level of supply and demand balance. If we simply solve the excess capacity and inventory surplus, we can only achieve a low level of supply and demand balance. Through the last round of administrative reform to resolve overcapacity, the rapid decline of production capacity in China's traditional industries such as steel and coal led to a sharp decrease in supply and a recovery in prices of upstream products, but this also brought problems to the downstream industries of steel and coal. In the case of rising raw material prices in the upstream, downstream industries could only be forced to substantially reduce profits. Since the failure of such price transmission mechanism to respond to market signals, the capital will be concentrated in upstream industries with high profits. This violates the original intention of the reform, so it is not conducive to the development of the whole industry.

Supply-side reform does not mean abandoning the demand-side, but making the two develop in harmony. For example, Germany was faced with the problem of overcapacity at that time. In the reform, Germany did not simply stop production, but actively stimulated the export of surplus products through the devaluation of its currency to absorb overcapacity. Indeed, China is now the world's largest exporter, and it is very difficult to maintain the rapid growth of exports. It is increasingly difficult to rely solely on the devaluation of the domestic currency to boost exports. However, China still has many ways to create overseas demand, such as the government's "One Belt And One Road" development plan.

#### B. Adopt More Flexible Market-oriented Methods

Although the means of administration are efficient and rapid, the "one-size-fits-all" way of execution is also prone to bring many social problems. For example, in 2016, in order to cope with the excess inventory of real estate, a series of real estate stimulus policies issued by the government led to the

crazy flow of hot money to real estate [7]. As a result, instead of solving the problem of the excess inventory of real estate in third-tier and fourth-tier cities, housing prices in first-tier and second-tier cities with low real estate inventory soared, and the real estate bubble became prominent. Therefore, intervention through administrative means can easily lead to overcooling or overheating of the industry and make it difficult to control.

In the successful international supply-side reform, the way of reducing government intervention is basically adopted, and the supply-demand balance is regulated through a more liberal and open market. The Reagan Administration not only relaxed the control of aviation, railways, telecommunications and natural gas industries, which were traditionally monopolized by the state, but also relaxed the control of oil prices and labor prices, increased support for small and medium-sized enterprises and encouraged free competition among enterprises. The market and financial liberalization policies of the Reagan administration led to the conversion of many military technologies to civilian use, and even the birth and popularization of computers and networks.

#### C. Reform Requires both Long-term Strategic Planning and Short-term Regulatory Policies

Reform is a long-term systematic project, and the effect of policy implementation is often lagging behind. It also takes time for the market to respond and change, so we cannot change policy arbitrarily because the results of market reaction in the short term do not match expectations. For example, after the implementation of the New Deal of tax reduction and burden reduction by the Reagan administration, the already serious fiscal deficit was even worse. With the persistence of reform, the positive effect was gradually shown in the fourth year, and the long-term prosperity of the American economy was finally ushered in.

However, in the process of Argentina's reform, due to the government's eagerness for quick success and instant benefits, they chose the fast-acting monetary and trade policies, while ignoring two important tools that will take a long time to see results: human capital investment and tax cuts [8]. As a result, Argentina's two failed reforms led to a short-lived false boom, and it only ended up creating further structural imbalances in the economy.

On the contrary, the German government paid the most attention to long-term human capital investment in the reform process, advocated dual system of vocational education and diversified training objectives, changed educational concepts, and encouraged school-enterprise cooperation and joint innovation through preferential tax policies [9]. All these measures laid a foundation for the development and innovation of the German manufacturing industry.

#### IV. CONCLUSIONS

From the successful experience of supply-side reform in the United States and Germany, the most effective means are to reduce government intervention, establish a market-oriented and external environment of fair competition, release the

vitality of enterprises, reduce taxes and burdens, reduce business operating costs, create conditions for investment and innovation, strengthen the human capital investment, reserve talents for economic transformation and upgrading and continuous innovation, control the money supply, stabilize prices, control inflation, break the financial constraints, realize the financial marketization and improve the availability of financing, while increasing the efficiency of financial services for the real economy. However, the failure of supply-side reform in Argentina and Japan shows that the above measures must be used together. If we rely on a single approach or the wrong approach, supply and demand will eventually become unbalanced and lead to an economic crisis.

From the perspective of international experience, supply-side reform is the best choice to solve China's existing economic problems. We should first make it clear that supply-side reform is not to abandon the demand-side, but to make the two develop in harmony, so as to achieve a higher level of balance between supply and demand.

Secondly, in terms of reform means, we should reduce administrative means, open up the market, reduce monopoly and government regulation, encourage free competition, and regulate the allocation of resources and upgrade the industrial structure through the market.

Finally, we must not waver in our belief in long-term reform, and not give up or doubt the reform just because we encounter difficulties in the short term. Instead, by keep thinking and improving, we believe that the reform will surely promote the long-term prosperity of China's economy.

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