



中华人民共和国科学技术部

Ministry of Science and Technology of the People's Republic of China



CHINA S&T NEWSLETTER

No.6 2019

Content

A Special issue on China's Technology Market



A New Era of Struggle after a Splendid Chapter of 70 Years

This year marks the 70th anniversary of the founding of the new China. Thanks to ceaseless endeavor over the past seven decades, the country has witnessed dramatic changes. This represents a heroic chapter of struggle, no matter in Chinese or world history.

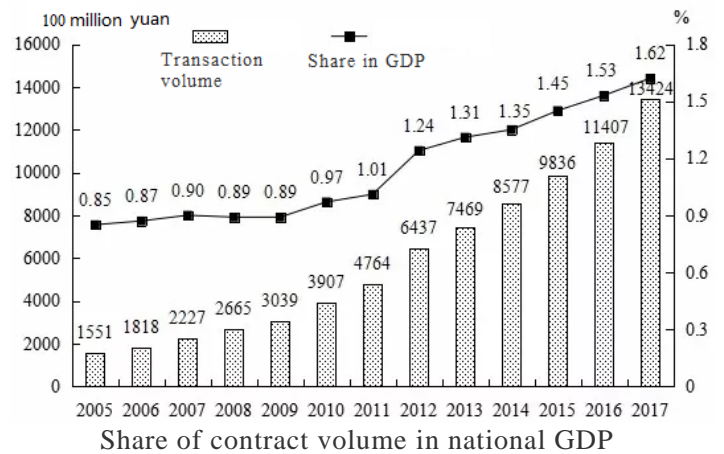
To demonstrate the great process and valuable experience over the past seven decades and the historic transformation and achievements of the Communist Party of China since the 18th CPC Congress, this special issue illustrates the struggle and patriotism of scientists and engineers and depicts the touching stories of the unity, ambition and fulfillment of dreams of the Chinese people.

China's Technology Market

In line with the overall arrangement of the innovation-driven development strategy, our technology market saw liquidity improvement and steady enhancement in transaction scale and quality in 2017. The national technology transaction volume topped 1.3 trillion yuan, a yearly increase of 17.7%. Technology service contract volume remained the top of four kinds of contracts, while technology development contract volume increased markedly. The number and amount of the technology contracts in e-information, advanced manufacturing and urban development & social construction exceeded those of 50% of national total. The transaction volume of major technology contracts valuing over 10 million yuan continued to increase rapidly, accounting for as high as 76.6% of national total. The role of enterprises as major players of two-way technology transfer has been enhanced, and that as major players of innovation continued to be enhanced.

I. Technology contract volume exceeded 1.3 trillion yuan and transaction volume increased steadily.

In 2017, our technology market transaction volume saw steady increase. The 368,000 technology contracts of all kinds reached a volume of 1.34242 trillion yuan, up by 14.7% and 17.7% respectively compared with the previous year. The share of contract volume in national GDP continued to increase and arrived at 1.62%. The average technology contract volume stood at 3.652 million yuan, a year-on year increase of 2.6%.



II. Technology service and technology development contract volume increased remarkably.

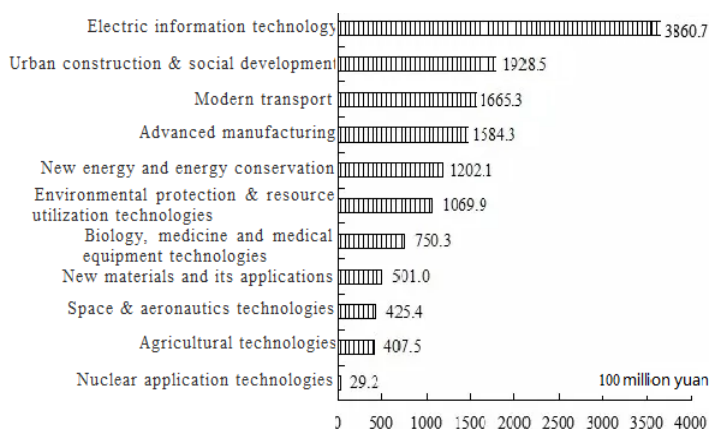
In 2017, the transaction volume of technology development and technology service contracts was on the rise, while that of the technology transfer and consultation contracts declined. Among the four kinds of contracts, the transaction volume of technology service and technology development contracts ranked No.1 and No.2 respectively, becoming the major types of technology transaction. The volume of technology service contracts ranked the top for five consecutive years, remaining the top of the four contracts. It reached 682.62 billion yuan, a year-on-year increase of 16.7% and 50.8% of the national total technology contract volume. The transaction volume of technology development contracts stood at 474.85 billion yuan, a year-on-year increase of 36.5% and 35.4% of national total. The number and amount of the two types of contracts continued to account for over 80% of the national total. Among the technology service contracts of all kinds, the general technology service was the major form, reaching a transaction volume of 667.43 billion yuan and accounting for 97.8% of the total technology service contract volume, a slight decrease compared with the previous year. 26,735 technology consultation contracts were signed, a year-on-year increase of 9.4%, reaching a transaction volume of 44.93 billion yuan, down by 4.1% compared with the previous year. It accounted for 3.3% of the national total technology contract volume.

III. Technology factors continued to concentrate in strategic emerging industries and areas of livelihood.

In 2017, various industries have become increasingly informatized and smart along with the adjustment and upgrading of industrial structure. E-information technology, modern transport and advanced

manufacturing have maintained a momentum of fast growth, while urban construction & social development, new energy & energy conservation and environmental protection & resource utilization concerning people's livelihood and sustainable development have staged sound performance.

In 2017, technology transaction volume in e-information, urban construction & social development, modern transport ranked top three. The number and volume of contracts both exceeded 50% of the national total technology transaction volume. Generally, all areas except new materials & its applications and nuclear application technologies witnessed different degrees of growth. E-information technology transaction volume remained the leader. The 143,633 transactions reached a total volume of 386.07 billion yuan, an increase of 16.5% and 28.8% of national technology contract volume. The number of contracts in environmental protection & resource utilization increased by 8,398 compared with the previous year. Space & aeronautics technology saw the greatest increase in contract transaction, up by 59.0% compared with the previous year. Second to it was urban construction & social development, a year-on-year increase of 34.7% and the third place was agricultural technologies, standing at 28.2%.



Distribution of national technology contract transaction volume in different areas (2017)

Technology transactions focused on social development and social services. Among various kinds of economic and social goals, those transactions have kept booming for fast economic and social development. The 127,466 technology contracts reached a volume of 388.22 billion yuan, a year-on-year increase of 10.0% and 28.9% of national total. Those for other civil use had a transaction volume of 200.64 billion yuan, a year-on-year increase of 26.1% and 14.9% of the national total, ranking No.2 in the national total. Those for industrial and commercial development reached a volume of 192.47 billion yuan, a

year-on-year increase of 54.5%, ranking the third place.

IV. Technology transaction volume of scheduled projects maintained steady growth momentum.

In 2017, the technology transaction volume of scheduled projects continued to grow. The 48,610 projects reached a total volume of 212.41 billion yuan, a year-on-year increase of 10.9% and 15.82% of national total technology transaction volume. Among them, provinces and municipalities with independent planning status had a transaction volume of 113.13 billion yuan, a year-on-year increase of 22.7% and 53.3% of the transaction volume of scheduled projects. The scheduled projects in cities and counties reached a transaction volume of 57.56 billion yuan, a year-on-year increase of 10.7% and 27.1% of the transaction volume of scheduled projects.

The total transaction volume of projects under the national S&T programs declined. National Major S&T Project, Natural Science Fund and National High-tech R&D Program (863 Program) ranked top three, standing at respectively 3.44 billion yuan, 1.27 billion yuan and 1.11 billion yuan and accounting for 23.8%, 8.8% and 7.7% of the transaction volume of those projects under national programs.

V. Major technology contract transaction volume accounted for over 70% of national total.

The transaction volume of major technology contracts above 10 million yuan maintained its fast growth. In 2017, 13,358 major technology contracts above 10 million yuan were signed, a year-on-year increase of 25.3%. The transaction volume stood at 1.02814 trillion yuan, a year-on-year increase of 17.7% and 76.6% of the national technology contract transaction volume.

40% of the major technology contracts were associated with the IPR. The share of the number and amount of the IP-related contracts in major technology contracts both exceeded 40%. 5,561 contracts have been signed, reaching a transaction volume of 412.17 billion yuan. Among them, technology secret was the major transaction form. The 2,959 contracts reached a transaction volume of 223.96 billion yuan, accounting for 21.8% of major technology contract volume. The 1,291 patent technology contracts had a transaction volume of 125.85 billion yuan, ranking the second. Computer software copyright ranked the third, having reached 934 contracts valuing 41.29 billion yuan.

VI. The role of enterprises as major players of two-way technology transaction was solid and technology transaction contracts of universities and research institutes rose remarkably.

As the biggest exporter and receiver, the role of enterprise legal person has been consolidated and highlighted. In 2017, the yearly contract volume exported and received by enterprises accounted for 88.5% and 76.8% of the national total respectively.

Among them, Chinese-funded enterprises were the biggest technology exporters and the biggest technology receivers. They exported a total of 232,000 technology projects with a transaction volume of 1.0226 trillion yuan, up by 14.6% and 22.0% respectively compared with the previous year. Those volume accounted for 86.1% of the enterprises' total exported technology contract volume and 76.2% of the national technology contract volume. In the meantime, Chinese-funded enterprises absorbed 228,000 technologies valuing at 841.9 billion yuan, accounting for 91.2% and 81.6% respectively of enterprise legal person technology absorption.

In 2017, through approaches of technology transfer, technology investment and industry-academia-research synergy, universities and research institutes signed 104,836 projects with a transaction volume of 122.26 billion yuan, an increase of 14.8%. As the sellers, universities saw their technology contract volume down by 1.2% compared with the previous year, while research institutes up by 22.9%.

(Source: MOST)