# MIZUHO CHINA MONTHLY

#### **Industrial and Regional Policies**

Stronger measures on China's "three rural issues" as they enter a new phase and the prospects for the development of agriculture and rural areas

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### - Executive Summary -

**Industrial and Regional Policies** 

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Though the 2019 NPC downgraded the target for real GDP growth to '+6–6.5%' (2018's target: 'around +6.5%'), it indicated it was prepared to defend the lower range of +6.0% as it seeks to bolster employment and finish building a moderately prosperous society in all respects. It said it would pursue a more proactive fiscal policy based on cutting enterprise costs and expanding infrastructure investment. It also pledged to pursue a prudent monetary policy that strengthened the supply of funds to private enterprises and small and micro businesses while refraining from introducing a deluge of stimulus measures. US/China trade frictions could continue to exert downward pressure. The economy could slow as the authorities keep stimulus and easing in check. Observers will need to monitor whether authorities can stabilize the economy by conducting economic policy management in an appropriate and timely manner.



Stronger measures on China's "Three Rural Issues" as they enter a new phase and the prospects for the development of agriculture and rural areas

-The essence of this year's No. 1 Central Document and the challenges of modernizing China's farm sector-

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## 1. Introduction: The background to the development of new measures on China's "Three Rural Issues" in the government's 16<sup>th</sup> No. 1 Central Document

The No. 1 Central Document (the leadership's annual policy statement, which sets forth policy priorities and assignments for the year ahead), which has focused on measures to tackle the so-called "san nong" (three rural issues)<sup>1</sup> since 2004, is released sometime between January and February each year. On February 19, 2019, Xinhua News Agency released China's No. 1 Central Document entitled "Several Opinions on Prioritizing Agricultural and Rural Development and Perfecting 'San Nong' Work". The document was jointly issued by the CPC Central Committee and the State Council on January 3, 2019.

The opening paragraph reads as follows: "This year and next year represent a decisive period for the comprehensive construction of a moderately prosperous society and there are many hard tasks that must be accomplished in the field of "agriculture, rural areas and farmers". The CPC believes that under the complicated situation of increasing downward pressure on the economy and profound changes in the external environment, efforts to tackle the problems facing "agriculture, rural areas and farmers" are of particular importance. Resolving the issues of "agriculture, rural areas and farmers" is the top priority of the party's work and we will work unwaveringly towards this end, further unifying our thoughts, strengthening our confidence, and implementing our work, consolidating the development of a good situation in agriculture and rural areas, and contriving to have the "three rural" issues serve as ballast. We will take the initiative in responding to various risks and challenges, and lay the foundations for ensuring sustained and healthy economic development and overall social stability, and achieving the goal of the first century (building a moderately prosperous society by around 2021, the 100th anniversary of the CPC)." As is evidenced by Table 1, whilst the "Three Rural Issues" have been regularly identified as targets in the No. 1 Central Document over the years (even in the many years when no mention is made of the so-called "San Nong" in the document's title), the particular emphasis on prioritizing the development of agriculture and rural areas and on tackling the "Three Rural Issues" in this year's first policy statement is a direct consequence of the dimensions and complexity of the issues now facing China's agricultural industry.

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<sup>&</sup>lt;sup>1</sup>The term "San Nong" specifically refers to "agriculture, rural areas and farmers", and these so-called "Three Rural Issues" first appeared in central government documents in 2001 as a comprehensive and structural issue needing to be addressed. The Government Work Report of 2003 included official pledges to take stronger action to resolve these issues and measures to tackle the Three Rural Issues were highlighted as a priority in the No. 1 Central Document the following year. Broadly speaking, the Three Rural Issues refer to the crisis facing China's agricultural industry, backward rural areas and poverty among farmers. Tiejun Wen, "Three Rural Issues and Institutional Transition" "China Economic Publishing House, 2009; Yongyu Shao, "Research on Urbanization and Industrialization in China: Historical and Spatial Developments against a Backdrop of Resource and Environmental Constraints" (in Japanese), Taga Shuppan, 2012, etc.



Table 1: "San Nong" Policy Themes in the CPC Central Committee No. 1 Central Documents since 2004

| Year | Title  |
|------|--|
| 2004 | Opinions of the CPC Central Committee and the State Council on Several Policies Accelerating the Growth in Peasants' Income  |
| 2005 | Opinions of the CPC Central Committee and the State Council on Several Policies Relating to  |
|      | Strengthening Rural Work and Improving the Overall Production Capacity of Agriculture  |
| 2006 | Several Opinions of the CPC Central Committee and the State Council on Promoting the Construction of a New Socialist Countryside   |
| 2007 | Several Opinions of the CPC Central Committee and the State Council on Actively Developing   |
|      | Modern Agriculture and Steadily Promoting the Construction of a New Socialist Countryside  |
| 2008 | Several Opinions of the CPC Central Committee and the State Council on Fortifying the Foundations of Agriculture and Further Promoting Agricultural Development and Higher Farm Incomes  |
| 2009 | Several Opinions of the CPC Central Committee and the State Council on Achieving Steady<br>Agricultural Development and Sustained Income Increases for Farmers   |
| 2010 | Several Opinions of the CPC Central Committee and the State Council Regarding Proposals on   |
|      | Strengthening the Efforts of Coordinative Urban-Rural Development and Further Consolidating  |
|      | the Basis of Agricultural and Rural Development  |
| 2011 | Decision of the CPC Central Committee and the State Council on Accelerating Water Conservancy  |
|      | Reform and Development   |
| 2012 | Several Opinions of the CPC and the State Council on Accelerating Ongoing Scientific and   |
|      | Technological Innovation in Agriculture and Enhancing the Security of Agricultural Product   |
| 2012 | Supply 1 Control of the CPC Cont |
| 2013 | Several Opinions of the CPC Central Committee and the State Council on Accelerating the  |
| 2014 | Modernization of Agriculture and Further Strengthening the Vitality of Rural Growth  Several Opinions of the CPC Central Committee and the State Council on Deepening Rural  |
| 2014 | Reforms and Promoting and Accelerating the Modernization of Agriculture  |
| 2015 | Several Opinions of the CPC Central Committee and the State Council on Strengthening Reform  |
|      | and Innovation to Accelerate the Modernization of Agriculture  |
| 2016 | Several Opinions of the CPC and the State Council on Attaining a New Concept of Development,   |
|      | Accelerating Agricultural Modernization and Realizing the Goal of a Moderately Prosperous  |
|      | Society  |
| 2017 | Several Opinions of the CPC Central Committee and the State Council on Carrying forward the  |
|      | Structural Reform of Agriculture on the Supply Side and Accelerating the Cultivation of New  |
|      | Kinetic Energy Driving the Development of Agriculture and Rural Areas  |
| 2018 | Several Opinions of the CPC Central Committee and the State Council on Implementing the Rural  |
| 2010 | Revitalization Strategy  |
| 2019 | Several Opinions of the CPC Central Committee and the State Council on Prioritizing Agricultural   |
|      | and Rural Development and Perfecting "San Nong" Work   |

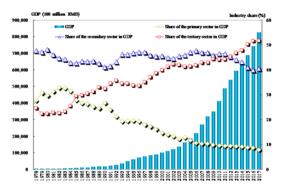
Source: Compiled from Chinese government (Ministry of Agriculture) websites and Xinhua News Agency press releases

Broadly speaking, the share of the primary sector – principally agriculture – in GDP declines significantly with economic development, and in China it dropped below 10 percent in 2009 (Figure 1). The decline in the ratio of the population employed in the primary sector has slowed in recent years however, and in 2017 it still accounted for a little less than a third, which puts it on a par with the secondary sector – primarily manufacturing (Figure 2). Data on the working populations in urban and rural areas moreover, show that whilst the rural workforce was eclipsed by that in urban areas in 2014, it continues to account for a significant percentage of the total workforce (Figure 3: its share declining from 55% in 2010 to 44% in 2018).



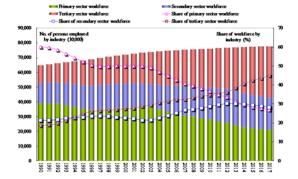


Figure 1: Long-term trends in the scale and industrial composition of China's GDP (1978-2017)



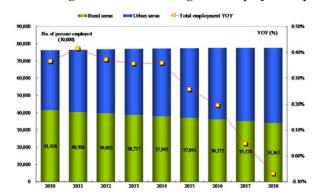
Source: "China Statistical Yearbook 2018"

Figure 2: Long-term trends in the numbers and composition of China's workforce by industry (1990-2017)



Source: "China Statistical Yearbook 2018"

Figure 3: Recent changes in employment patterns in urban and rural areas of China



Source: Compiled from China Bureau of Statistics "China Statistical Yearbooks" and "Statistics Bulletins"

Note: China recorded negative growth in its workforce in 2018 due to population aging and a declining birthrate.

This means that China's three rural issues have occupied a critical position in government policy for many years and, in terms of social stability, food security, the function of environmental resource conservation in agriculture, and the creation of new demand in times of economic downturn, policy on these issues continues to be an extremely high priority for the central government. Moreover, the fact that the government continues to develop new policy on the three rural issues argues that these have yet to be fully resolved.

This report presents the central themes of this year's No. 1 Central Document in light of the significance of China's three rural issues, offers an overview of the outcomes of measures taken thus far, and examines the new challenges facing the development of agriculture and rural areas under the conditions now facing the mainland.

#### 2. Policy priorities and characteristics of the No. 1 Central Document 2019

This year's No. 1 Central Document opens with the following requirements on implementation before elucidating eight key policy areas for the year ahead.

"We should fully implement the spirit of the 19th National Congress of the Communist Party of China (CPC) (held in October 2017), the 19th Second and Third Central Committees of the Party and the Central Committee of the Central Economic Work Conference (omitted), firmly grasp the overall tone of the work of striving in stability, shift to implementing the requirements for high-quality development, adhere to the general policy of priority development of agriculture and rural





areas, implement the rural revitalization strategy as the comprehensive foothold, checking it against those unequivocal tasks that must be achieved in the effort to tackle the "three rural issues" so as to achieve the goal of building a moderately prosperous society, adapt to the new requirements of rural reform and development in response to changes in the complex situation at home and abroad (omitted), deepen supply side structural reform of the agricultural industry, resolutely win the battle against poverty, give full play to the role of rural grassroots party organizations as fortresses in the battle (against poverty), comprehensively promote rural revitalization, and ensure the successful completion of the rural reform and development goals promised by 2020."

With trade friction between China and the United States intensifying and the Chinese economy still facing downward pressure, this year's No. 1 Central Document attracted particular interest, though rather than offering anything fresh, the document calls for the attainment of goals on key projects and the strengthening of efforts to tackle issues that have either yet to be effectively dealt with or remain unresolved. The document highlights eight key areas in its policy on the three rural issues, setting forth four to five in-depth tasks to be undertaken in each of the priority areas. This might lead to the impression that this year's No. 1 Central Document is slightly lighter and weaker on content than last year's, which called for the comprehensive implementation of the rural revitalization strategy, but its title and the priority areas it enumerates argue that it is firmly focused on addressing China's three rural issues.

The priority areas and the key tasks presented for each in the No. 1 Central Document for 2019 are summarized in Table 2, however, it is the policies on the three rural issues raised in areas (1) through (5) that are of particular interest here. The call for a decisive battle against rural poverty, greater security in the supply of key agricultural products, and the expedition of efforts to improve living environments and public services in rural communities (items (1) to (3) below) are tasks that of paramount importance and urgency. The development and expansion of rural industries so as to open up new channels for farmers to increase their incomes (item (4)) is a serious and important policy that has been a focus of government efforts in tackling the three rural issues for many years now, whilst the strategy presented in item (5) is focused on stimulating vitality through deeper rural reform. The policies relating to improvements in basic agricultural management systems and land tenure system and rural collective property rights system reform are also extremely important, but it goes without saying that these policy goals are unattainable in the short term.

The following section takes a look at the effects of policy on the three rural issues given in previous central documents in light of the main points of this year's document, and examines the outstanding issues and the need for new policy measures to tackle them.

Table 2: Policy priorities given in the CPC / State Council No. 1 Central Document 2019

| • •               |   |                          |  |  |  |  |
|-------------------|---|--------------------------|--|--|--|--|
| Policy priorities |   |                          | Overview of policy key points  |  |  |  |
| 1                 | Concentrate on precision policy<br>for a decisive win in the fight<br>against rural poverty | (1)<br>(2)<br>(3)<br>(4) | Complete the task of getting rid of poverty without compromise Target extremely poor areas Focus on solving outstanding problems Consolidate and expand the results of poverty alleviation |  |  |  |
| 2                 | Consolidate the foundation of<br>agriculture to ensure the<br>effective supply of important | (2)                      | Stabilize food production  Complete the task of constructing high grade farmland  Adjust and optimize the structure of agriculture   |  |  |  |





|  | agricultural products   | (4)                                    | Accelerate breakthroughs in key agricultural technologies   |  |  |  |  |
|--|---|--|---|--|--|--|--|
|  |   | (5)                                    | Implement security strategies for key agricultural products   |  |  |  |  |
| Solidly promote rural construction and accelerate the filling of short gaps in the living environments and public services of rural areas  |   |  | Implement the three-year action plan on the development of rural settlement environments Implement village infrastructure construction projects Improve the standard of rural public services Strengthen rural pollution control and ecological environment protection Strengthen rural planning and guidance   |  |  |  |  |
| 4  | Develop and expand rural industries<br>and broaden channels for farmers to<br>increase their income   | (1)<br>(2)<br>(3)<br>(4)<br>(5)<br>(6) | Accelerate the development of characteristic rural industries Promote the development of a modern agricultural products processing industry Develop new rural service industries Implement a digital rural strategy Promote the relocation of rural labor Support rural innovation and entrepreneurship   |  |  |  |  |
| 5  | Deepen rural reform in an all-<br>round way and stimulate the<br>vitality of rural development  | (1)<br>(2)<br>(3)<br>(4)               | Consolidate and improve the basic rural management system Reform rural land tenure systems Deepen rural collective property rights system reform Improve the agricultural support and protection system   |  |  |  |  |
| 6  | Improve rural governance<br>mechanisms and maintain<br>social harmony and stability in<br>rural areas   | (1)<br>(2)<br>(3)                      | Strengthen rural governance capabilities Strengthen the construction of spiritual civilizations in rural areas Continue to promote the construction of peaceful villages and beef up efforts to wipe out gangsters and eliminate anti-social forces   |  |  |  |  |
| 7  | Give play to the role of the<br>fighting bastion of rural party<br>branches and comprehensively<br>strengthen the construction of<br>rural grassroots organizations | (1)<br>(2)<br>(3)<br>(4)               | Strengthen the leadership role of rural grassroots party organizations Give play to the role of various organizations at the village level Strengthen the service functions of village-level organizations Improve guarantee mechanisms for the operating expenses of village-level organizations   |  |  |  |  |
| Strengthen the party's leadership over the work of "agriculture, rural areas and farmers" and implement the general guidelines for priority development of agriculture and rural areas |   | (1)<br>(2)<br>(3)<br>(4)               | Strengthen the institutional guarantees for rural revitalization initiatives undertaken by 5-level secretaries*  Firmly establish the policy orientation of agriculture and rural area development priorities  Cultivate "three rural" work teams that understand agriculture, love the countryside, and love farmers  Encourage farmers to take an active role |  |  |  |  |

Source: Excerpted from "Several Opinions of the CPC Central Committee and the State Council on Prioritizing Agricultural and Rural Development and Perfecting 'San Nong' Work"

#### 3. An overview of "San Nong" policy outcomes and progress on rural development

By far the most significant outcome of China's policy on the three rural issues to date has been the sharp decrease in the population of the rural poor and the decline in its poverty rate (Figure 4). This is the first priority area highlighted in this year's No. 1 Central Document and suggests that only a little additional effort is needed to lift all rural residents living below the current poverty line out of poverty and to bring them into the fold of the moderately prosperous society by 2020, but this final stage is likely prove the hardest to achieve since the circumstances of those remaining in poverty is particularly bad.

China has also made some progress in its effort to achieve food security, i.e. secure supplies of key agricultural products, which is the second priority area listed in this year's document. Having witnessed an unprecedented drop in food (grain) production at the end of 2001, China then recorded twelve successive years of production increases between its accession to the World Trade Organization (WTO) in 2003 and 2015. Food (grain) production declined in 2016, but was back on an increasing trend in 2017 (Figure 5), meaning that China has succeeded in winning extremely stable food security, which is a major result<sup>2</sup>.

<sup>2</sup> It has been widely pointed out that China feeds one fifth of the world's population from a comparatively small area of arable land. A recent technical book on

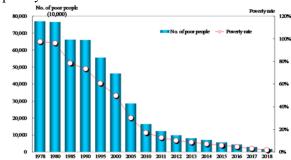


<sup>\*</sup> The term "5-level secretaries" refers to party organization secretaries at five administrative division levels, namely: provincial, municipal, county, town and village.

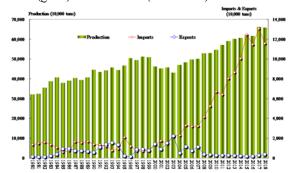


#### News from the China Advisory Department

Figure 4: Trends in China's rural poor population and poverty rates



Source: Compiled from the "Poverty Monitoring Report of Rural China 2015" and the "2018 Statistical Bulletin", China Bureau of Statistics Figure 5: Long-term trends in food (grain) production and food (grain) trade in China (1980-2018)



Source: Compiled from the "Rural Statistical Yearbook 2017" and the "2018 Statistical Bulletin", China Bureau of Statistics

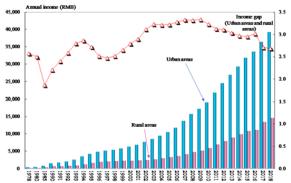
Again, figures on the urban-rural income gap, something that has long been regarded as an issue and continues to attract significant attention, reveal improvements since the global financial crisis, with income disparity narrowing from a peak of 3.3 times (urban versus rural) in 2008 to 2.6 times in 2018 (Figure 6). This is primarily attributable to policy on the three rural issues, with farm incomes increasing at a greater rate than those of urban residents. That said, the fact that income disparity remains above 2.5 times means that such disparity will continue to be a major issue for China, along with improvement in the actual urbanization rate (on a family register population basis).

Figure 7 gives an itemized breakdown of central government spending on agriculture, forestry and fisheries. Support for agriculture is the biggest recipient, but the increase in fiscal spending on poverty alleviation and comprehensive rural reform seen in recent years is, without doubt, a result of the focus on policy targeting the three rural issues. Related to this, the data on sanitary toilet penetration rates and solar water heater and solar cooker installations given in Figures 8 and 9 reflect the improvements that have been made in the residences and living conditions of rural residents. Both have increased noticeably in recent years, a result that can be said to be linked to the priority being given to improvements in the living conditions of farmers in the No. 1 Central Document.

the subject stresses that China feeds one fifth of the world's population on 40% of the global average for hectares of arable land per capita and 25% of the global average for per capita water resources. (Jun HAN, editor, Jie CHEN and Dan LUO, subeditors, "Food Security Strategy for 1.4 billion People", Xuexi Publishing House, Hainan Publishing House Co., Ltd., 2012).



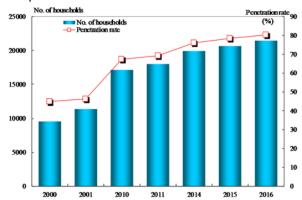
Figure 6: Trends in average urban and rural incomes in China and the urban-rural income gap



Source: Compiled from respective editions of the "China Statistical Yearbook" and "Statistical Bulletin", China Bureau of Statistics. Income gap figures are calculated values.

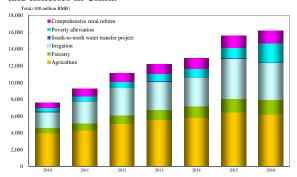
Note: Figures for urban areas are based on the disposable income per capita, those for rural areas on the net income per capita (and, as of 2017, on disposable income per capita as for urban areas).

Figure 8: Trends in household sanitary toilet installations and penetration rates in rural areas



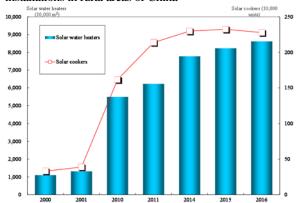
Source: "Rural Statistical Yearbook 2017"

Figure 7: Trends in fiscal spending on agriculture, forestry and fisheries in China



Source: "Rural Statistical Yearbook 2017"

Figure 9: Trends in solar water heater and solar cooker installations in rural areas of China



Source: "Rural Statistical Yearbook 2017"

The long-term increase in food (grain) production discussed above is also largely attributable to the priority and policy support that was given to addressing the three rural issues following the sharp drop in production in 2003. The increases in yield per area (Figure 10) and growth in the area of efficient agricultural irrigation (Figure 11) resulting from investment in agriculture are representative examples of this focus on the three rural issues. Figures additionally confirm increased ownership of large and medium-sized tractors, combine harvesters and other farm equipment, increased input of fertilizers and increased usage of polymer film, though there is insufficient space to fully enumerate these data here. Another irrefutable outcome of government policy on the three rural issues is the increase in productivity that has come from the entry into business of so-called leading enterprises (companies that have been certified by the government to process and market agricultural produce grown by farmers) that has accompanied the industrialization and agglomeration of agriculture.



Figure 10: Trends in unit yield of food (grain) and cotton in China (1998-2017)

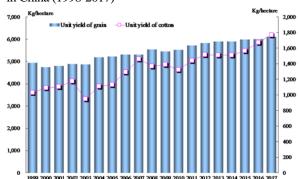


Figure 11: Trends in area under efficient irrigation and rural electricity consumption



Source: Compiled from China Bureau of Statistics data

Source: As for Figure 10

In 2004, the Chinese government shifted to a policy of agricultural support and agricultural protection (abolishing its agricultural tax and replacing it with subsidies<sup>3</sup>) resulting in significant improvements in agricultural management, though there can be no denying that its fiscal burden is also on the increase. This is something that is heavily referenced in the No. 1 Central Document, but the government is hard at work on China's new urbanization strategy, a plan based on actual urbanization through non-farm employment and farm-worker migration targeting increases in rural incomes, and this is also beginning to produce results.

As Figure 12 illustrates, the urbanization rate for the government-designated permanent resident population (generally referred to as urbanization) is increasing at a rapid pace and the urbanization rate for the family register population is also on the increase, suggesting that China is on target to meet the goals for 2020 set forth in the new urbanization plan. The removal of restrictions on migration by those with rural household registration to "Type-2 cities" with populations between 1 million and 3 million and the passing of laws and amendments relating to the contracting of rural land<sup>4</sup> are targeted strongly towards promoting actual urbanization through rural-urban migration, and this policy is expected to be effective in increasing the urbanization rate.

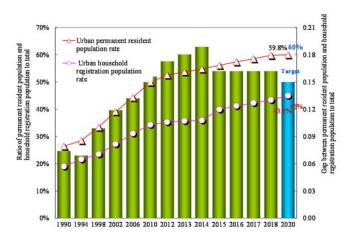
<sup>&</sup>lt;sup>4</sup> On April 8, 2019, the National Development and Reform Commission released an announcement on "Key Tasks for a New Type of Urbanization Construction" that abolishes the restrictions on the acquisition of household registration on the population with rural household registration in "Type 2 cities" so as to encourage migration from rural areas and promote urbanization. Moreover, an "Amended Rural Land Contracting Law" and the "Law on Farmland Occupation Tax" were passed by the Standing Committee of the National People's Congress on December 29, 2018 to encourage appropriate handling of farmland liquidity and the conservation of arable land, the protection of farmers' rights, and the streamlining of farm management, etc.



<sup>&</sup>lt;sup>3</sup> Specifically, there are four major agricultural subsidies: direct payments to grain producers, subsidies for improved seed strains, a general input subsidy and a subsidy for purchases of agricultural machinery, however, the direct payments to farmers as policy on the three rural issues have had a significant impact.



Figure 12: Urbanization in China as evidenced by permanent resident population and household registration population rates



Source: Compiled from respective editions of the "China Statistical Yearbook" and "Statistical Bulletin". Household registration population rates from 2013 onwards are estimates. Permanent resident population rates correspond to the urbanization rates given in official Chinese government statistics.

# 4. China's prospects for achieving food security and agricultural modernization in the new political landscape

As the above section demonstrates, China's political focus on the three rural issues has indisputably yielded significant results, and there have been many big changes in rural areas. Nonetheless, assuming that these changes are primarily attributable to effective policy, the recent shifts in the political landscape cannot be ignored, meaning that agricultural development in China is likely to confront various issues and challenges down the line.

To begin with, the potential exists for China's food security policy, which requires maintaining a self-sufficiency rate of above 90 percent (set at 95% in the 12th Five-Year Plan) and is seen as the nation's highest priority, to be eased in order to respond to changes in the domestic and international environment. China is maintaining a grain (rice, corn, wheat) self-sufficiency rate of over 90 percent, which is high, but imports of soy products have increased significantly in recent years and if this is factored in then its self-sufficiency rate drops sharply (Figure 13). Figures on demand and supply for food (grain) following China's accession to the WTO argue that this growth in imports is a trend. This is particularly marked with soybeans, imports of which have increased conspicuously due to increased domestic demand and a slowdown in domestic production, and dependency on foreign soybeans is approaching 90 percent (Figure 14).





Figure 13: Trends in the demand and supply of food (grain) following WTO accession (2001-2018)

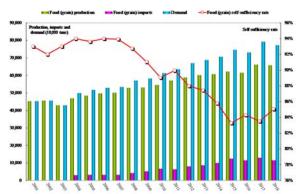
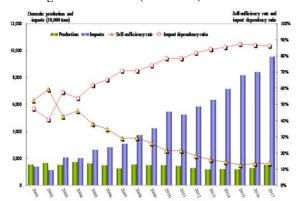


Figure 14: Trends in the demand and supply of soybeans following WTO accession (2001-2017)



Source: Compiled from customs statistics and Bureau of Statistics data

Source: As for Figure 13

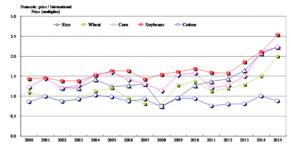
Responding to production factors and changing situations both at home and abroad is essential to achieving the continuing development of agriculture and rural areas in the new political landscape, but on the domestic front China will need to respond to a declining peasant labor force, the political supply-side adjustments needed to address China's "new normal", efforts to promote smart agriculture using information and communications technology, the Internet of Things, artificial intelligence and other new industrial revolution technologies, and sixth sector industrialization in agriculture. External factors include the need for diversification in food security strategy based on the overseas expansion of Chinese enterprises, though increased pressure on imports of agricultural products due to trade friction with the United States is probably inevitable, too. In terms of the principal of comparative advantage, prices of food staples in China are comparatively high, with the exception of cotton crops (Figure 15), though soybeans are particularly expensive costing around 2.5 times the international price (in 2015). Thus, in devising agricultural policy in general and the benchmark for food security in particular, China will need to factor in these production factors and environmental changes both at home and abroad.

Besides the urban-rural income gap China must also deal with major regional disparities, both of which are underpinned by environmental conditions and the structure of domestic industry. As illustrated by Figure 16, the major food (grain) producing area is not the southeast area (Yangtze River and Pearl River areas), which is economically prosperous and boasts abundant water resources, but the northeast and central inland areas (the Yellow River and Huai River areas), which are poor in water resources. Heilongjiang, China's northernmost province, is the domestically largest food (grain) producing area, followed by Henan, China's third most populous province where the rate of urbanization is significantly lower than the national average and economic development is low. If China is to ensure its food security then efforts to promote industrialization and urbanization and improve resident welfare in the major food (grain) producing areas must be kept forefront. There is a strong demand for a whole range of new-type urbanization and agricultural modernization projects in rural areas, as well as for new projects (in entrepreneurship and innovation).



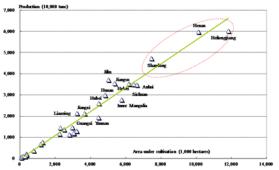


Figure 15: Trends in the domestic-international gap in prices of major farm crops



Source: Yu Wusheng, "How China's Farm Policy Reforms Could Affect Trade and Markets: A Focus on Grains and Cotton" (June 2017), International Centre for Trade & Sustainable Development (ICTSD) https://www.ictsd.org/sites/default/files/research/china\_agriculture\_domestic\_refom\_-\_chinese.pdf

Figure 16: A comparison of Grain Plantation Area and Grain Production Volumes (2017)



Source: China Bureau of Statistics, "Public Notice on Food (Grain) Production in 2017" (December 8, 2017)

The highly numerous indicators for agricultural modernization are given in Table 3, but the "binding" commitments, achievement of which is mandatory, are primarily those items that relate to food security (overall production capacity of grain and cultivated land holdings), as well as farmland pollution restrictions and environment-related items. There are also numerous indicators that are "predicted", and there is definitely some ambiguity with regards to the effectiveness of the plan and time constraints. A recently published book of research on agricultural modernization in China<sup>5</sup> states that China is aiming to achieve these goals by 2049, which gives it roughly thirty years, whilst the "Opinion of the Central Party Committee and the State Council on the construction and development of systemic mechanisms and policy systems for integrated urban-rural development", which was released on May 5, states that China is aiming to have achieved basic agricultural modernization by 2035 and to have completed and established the systems for promoting integrated urban-rural development targeting the complete revitalization of rural areas by the middle of this century. This argues that the road to agricultural modernization, like that in its efforts to respond to and improve the three rural issues, is likely to be an extremely long one. China's population is expected to have passed its peak during this time (sometime between 2025 and 2030) and there will likely be major changes in food demand, preferences and the structure of meals as a result.

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<sup>&</sup>lt;sup>5</sup> Hainian JIN "China's New Agricultural Modernization Strategy for 2049", CITC Press, 2016, etc.



Table 3: Major Indicators of Agricultural Modernization in the 13th Five-Year Plan

| G.            | Indicator  | Unit              | 2015      | 2020   | Average annual growth rate | Indicator attribute |
|---------------|--|-------------------|-----------|--------|----------------------------|---------------------|
| Category      |  |                   | Benchmark | Target | [Cumulative growth rate]   |                     |
| Food supply   | Overall production capacity of grain (cereal)                                      | 100 million tons  | 5         | 5.5    | [0.5]                      | Binding             |
| security      | Wheat / rice self-sufficiency rate   | %                 | 100       | 100    | -                          | Binding             |
| l             | Cultivated area of corn  | 100 million acres | 5.7       | 5      | [-0.7]                     | Predicted           |
| I             | Cultivated area of soybeans  | 100 million acres | 0.98      | 1.4    | [0.42]                     | Predicted           |
| l –           | Cultivated area of cotton  | 10,000 acres      | 5698      | 5000   | [-698]                     | Predicted           |
|               | Cultivated area of oil crops   | 100 million acres | 2.1       | 2      | [-0.1]                     | Predicted           |
| I             | Cultivated area of sugar crops   | 10,000 acres      | 2610      | 2400   | [-210]                     | Predicted           |
|               | Meat production  | 10,000 tons       | 8625      | 9000   | 0.85%                      | Predicted           |
| I             | Milk production  | 10,000 tons       | 3870      | 4100   | 1.16%                      | Predicted           |
| structure     | Seafood production   | 10,000 tons       | 6699      | 6600   | -0.30%                     | Predicted           |
|               | Ratio of animal husbandry to agricultural production                               | %                 | 28        | >30    | [>2]                       | Predicted           |
| I             | Ratio of fishery to agricultural production  | %                 | 10        | >10    | -                          | Predicted           |
|               | Ratio of agricultural processing to total agricultural production                  |                   | 2.2       | 2.4    | [0.2]                      | Predicted           |
|               | Agricultural labor productivity  | CNY 10,000/person | 3         | >4.7   | >9.4%                      | Predicted           |
|               | Increase in per capita disposable income of rural residents                        | %                 | -         | -      | >6.5                       | Predicted           |
| 1             | Overall pass rate in routine monitoring of agricultural product quality and safety | %                 | 97        | >97    | -                          | Predicted           |
| (             | Cultivated land holdings   | 100 million acres | 18.65     | 18.65  | -                          | Binding             |
|               | Total vegetation coverage of grassland   | %                 | 54        | 56     | [2]                        | Binding             |
| f             | Effective utilization coefficient of farmland irrigation water                     |                   | 0.532     | >0.55  | [>0.018]                   | Predicted           |
| Sustainable   | Main crop fertilizer utilization rate  | %                 | 35.2      | 40     | [4.8]                      | Binding             |
| development I | Main crop pesticide utilization rate   | %                 | 36.6      | 40     | [3.4]                      | Binding             |
| Ţ             | Polymer film recovery rate   | %                 | 60        | 80     | [20]                       | Binding             |
|               | Overall utilization rate of aquaculture waste                                      | %                 | 60        | 75     | [15]                       | Binding             |
| Ţ             | Effective irrigated area of farmland   | 100 million acres | 9.88      | >10    | [>0.12]                    | Predicted           |
| Technical     | Contribution of progress in agricultural science and technology                    | %                 | 56        | 60     | [4]                        | Predicted           |
|               | Overall mechanization rate of crop cultivation                                     | %                 | 63        | 70     | [7]                        | Predicted           |
|               | Ratio of moderate-scale operation of various land types                            | %                 | 30        | 40     | [10]                       | Predicted           |
| Management of | Ratio of large-scale livestock and poultry farming                                 | %                 | 54        | 65     | [11]                       | Predicted           |
| Ī             | Ratio of healthy aquaculture demonstration areas                                   | %                 | 45        | 65     | [20]                       | Predicted           |
| Support and   | Fiscal spending on agriculture, forestry and fisheries nationwide                  | CNY 100 million   | 17380     | >17380 | -                          | Predicted           |
| protection    | Agricultural insurance depth   | %                 | 0.62      | 0.9    | [0.28]                     | Predicted           |

Source: "Plan on National Agricultural Modernization (2016-2020)", State Council

Note 1: The wheat self-sufficiency rate refers to the extent to which the domestic production capacity of wheat is sufficient to meet demand.

Note 2: The depth of agricultural insurance refers to the ratio of agricultural insurance income to the value added by agriculture, forestry, animal husbandry and fishery.

As with other industries, agriculture is approaching a second phase of reform and opening up, opening up the prospects for responses to China's food problems and more global development based on growth in international cooperation, such as the Belt and Road Strategy. With many of the world's industrial nations protecting their agricultural industries, China will need to develop its problem-beset agriculture and rural areas within the confines of the WTO free trade system, and unparalleled efforts and long-term commitments will need to be made to improving the living





standards of its farmers.

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