
Abstract  Entering year 2020, the Chinese economy was struck by the COVID-19 outbreak. The unprecedented pandemic, entangled with the already elevated complexities in the nation’s internal environment and external surroundings, aggravated its economic outlook. Internal factors including severe education mismatch in China’s labor force, its vanishing demographic dividend, the declined purchasing power of its middle-income groups, risen leverage ratio of households and enterprises, and soared local government debt reinforced to weaken China’s domestic demand. External factors, especially uncertainty in the...
China-US relation in the face of the re-shaping global value chain, dragged world economic recovery and thus China’s exports and imports. This summary report highlights some major challenges and opportunities faced by the nation under its new development strategy that stresses internal circulation of domestic economy aided by its interaction with the globe. Our analyses based on IAR-CMM model provide a unified framework for addressing China’s short-, medium-, and long-term issues in an internally coherent manner. Looking into year 2021, our benchmark projection reports an 8.4% annual real GDP growth rate. Alternative scenario analyses and policy simulations are conducted to assess the impacts of potential downside risks and the corresponding policy options for ensuring implicit targets. Through the lens of these analyses, we conclude that a refocus on effective management of internal demand, while deepening structural reforms on supply side and advancing orderly opening up, can help smooth the internal and external circulations of the Chinese economy to achieve high-quality development.

**Keywords**  macroeconomic outlook, alternative scenario analysis, policy simulation, systemic risk, structural reforms, opening up, dual circulation

**JEL Classification**  E01, E17, E27, E37, E47

### 1 Introduction

The COVID-19 outbreak shocked the Chinese economy as the nation was entering in the 10-year growth slowdown. And this happened in face of the already elevated complexities at home and abroad. In fighting these challenges, China confronted unprecedented difficulties since it began reform and opening up in the late 1970s. As the effective containment of the pandemic took place at home, China’s major economic indicators like consumption, investment, and imports and exports have gradually recovered and turned positive eventually; it was the only major economy around the world that achieved positive growth in 2020. At the same time, the nation accomplished its task of poverty alleviation as planned.

Notwithstanding these achievements, a solid foundation for recovery from the unprecedented shocks is not yet in place, with significant downside risks still being clear and present and boosting domestic demand a daunting challenge.

There are multiple obstacles in the recovery process. Most notable are
Chinese Economy under the New “Dual Circulation” Strategy

structural imbalances, education mismatch in the labor force, income gap (Huang, 2019), declined purchasing power of middle-income groups, and problems associated with population aging, vanishing demographic dividend, and the “getting old before getting rich” trajectory in the Chinese economy. Also significant are weakened investment demand associated with impaired corporate profits and fallen taxes and fees. The nation’s external conditions do not fare better, with continued uncertainty in its global relations, below-expectation foreign trade, and volatile RMB exchange rate. These are aggravated by the great uncertainty in how the pandemic will unfold going in 2021 and beyond.

With the new “dual circulation” strategy in place and our view on the real-financial linkage in China’s economy in the background, managing debt and financial risks should remain a top priority as the nation enters in the third decade of the new millennium. As emphasized in our previous reports (IAR, SUFE, 2016, 2017, 2018, 2019), the risen leverage ratio in the household sector is a main dragger of household consumption demand. What is worth noting also is the rebounded leverage ratio in the real economy along with the more prominent debt risks of enterprises. Also worth alerting are the declined capital buffers of commercial banks and the increased risk spillovers from small and medium-sized banks to the banking system. As we demonstrate in this report, risen uncertainty in the economic environment and expanded local government debt could lead to increased housing prices and banking risks. As such, the rebounded fiscal and financial risks are especially alarming.

We have obtained the above assessments based on IAR-CMM model developed by Institute for Advanced Research at the Shanghai University of Finance and Economics, taking both cyclical and secular factors into consideration, and respecting various internal structural imbalances and external uncertainties. Taken together, our analyses provide a unified framework for addressing China’s short-, medium-, and long-term issues in an internally coherent manner. Our baseline forecast indicates that China’s economy will likely witness a real GDP growth rate of 8.4% in 2021. Alternative scenarios analyses concerning various internal and external risks and uncertainties lend support to the robustness of our main conclusions.

In addition to providing our forecasts with the baseline and alternative scenarios, we have also conducted policy simulations under various scenarios to configure a menu of policy options that may help achieve the implicit targets for
ensuring social stability. We stress that our results from these policy simulations should be evaluated and applied with caution in practice in light of their side effects, especially from a long-run perspective.

This annual report also extends several special-topic analyses released in our previous quarterly and semi-annual reports. These extensions reflect our continued effort in updating frontier analyses on existing and emerging issues of economic significance in China and around the world.

Through the lens of our analyses summarized in this report, we conclude that a timely refocus to effective demand-side management, while continuing to deepen supply-side structural reforms and advance orderly opening up as we have long advocated, can ensure a smooth implementation of the new “dual circulation” strategy to achieve high-quality development in the Chinese economy.

2 Macroeconomic Outlook and Major Risks

2.1 Consumption Impacted by the COVID-19 Recovered Slowly

On the impact of the COVID-19 outbreak, the growth rate of consumption declined sharply, then recovered moderately (see Figure 1), without a significant “retaliatory” rebound. In February 2020, the year-over-year growth rate of total retail sales of consumer goods dropped to –20.5%. As the effective containment of COVID-19 took place in China, and after the implementations of multiple stimulus policies initiated by the central and local governments and enterprises aimed at enlivening markets and stimulating consumption, consumer confidence has finally increased. The year-over-year growth rate of total retail sales of social consumer goods in November returned to 5%, but it was still 3 percentage points lower than the same period last year. Among all categories, online consumption showed great vitality. The cumulative year-over-year growth rate of online consumption from January to November was 11.5%, which was 16.3 percentage points higher than that of the total retail sales of social consumer goods. This may be inseparable from the emergency of new consumption patterns and the development of the express logistics industry. In sharp contrast, catering consumption has been hit harder by COVID-19, with a cumulative year-over-year growth rate of –18.6% from January to November. It is worth noting that the sales of products related to consumption upgrades were gratifying. The year-over-year growth rates of communication equipment, cosmetics, and
gold, silver and jewelry reached 43.6%, 32.3%, and 24.8% in November, respectively, which were the highest in the past five years for each category.

![Growth of Total Retail Sales of Social Consumer Goods](image)

**Figure 1** Growth of Total Retail Sales of Social Consumer Goods

Source: Huang and Tian (2016); Huang et al. (2017); Huang et al. (2018); Huang et al. (2019); Huang et al. (2020); IAR, SUFE (2016, 2017, 2018, 2019, 2020); and NBS (2014–2020).

Taken together, the main reasons for the slow recovery of consumer demand are as follows. First, the growth rate of residents’ income has slowed down, especially the employment and income of some low- and middle-income groups were greatly affected by COVID-19. Second, COVID-19 increased the cautious mood of residents, leading to a decrease in the propensity to consume and an increase in the willingness to save. Therefore, we call upon the government to continue deepening the reform of income distribution, especially to accelerate the reform of the tax system structure, substantially increasing the proportion of direct taxes. At the same time, the social security system should also be improved to increase residents’ willingness to consume.

2.2 Steadily Increased Investment with Relatively Strong Supports from Infrastructure Construction and Real Estate Development

In 2020, the growth rate of domestic investment showed a clear “V-shaped” rebound pattern, and the overall investment demand recovered well. In the first 11 months of 2020, national fixed asset investment increased by 2.6% on a year-over-year basis, and the growth rate was 0.8% higher than the previous 10
months, which played a strong supporting role in economic restoration. From the perspective of the three major components of investment (see Figure 2), the cumulative growth rate of infrastructure construction investment rebounded from –26.9% in February to 3.3% in November, reaching the 2019 level of 3%. As the domestic economic situation improves, the importance of “stabilizing demand” for infrastructure construction investment has decreased. Under debt pressure, next year’s debt expenditure and deficit rate, and the growth rate of specific bonds for particular programs, will likely decline. As such, investment in infrastructure construction will also decline.

![Figure 2](image)

**Figure 2** Cumulative Growth Rates of Fixed Asset Investment in Three Major Categories

Source: Huang et al. (2016); Huang et al. (2017); Huang et al. (2018); Huang et al. (2019).

The cumulative year-over-year growth rate of investment completed in real estate development persistently improved from –18.1% in February to 6.8% in November. In the case of low real estate inventory for sale, the enthusiasm for real estate investment may continue. However, under the policy of “housing is for living in, not for speculation,” the real estate market will likely face cyclical downward pressure, and the growth rate of investment in real estate development will decline.

The cumulative year-over-year growth rate of manufacturing investment completed recovered from –31.5% in February to –3.5% in November, but it has not turned positive yet, which is lower than the cumulative growth rate in 2019.
With the continued recovery of profits of enterprises above designated size\(^2\) and the steady increase in investment confidence, manufacturing investment is expected to accelerate. In addition, under the background of advancing reforms to delegate power, streamline administration and optimize government services, and speed up the optimization of business environment, the financing environment faced by enterprises will hopefully be improved. Therefore, the growth rate of manufacturing investment is expected to continue the rebound.

### 2.3 Risen Imports and Exports Growth and Increased Trade Surplus

From January to November 2020, with effective containment of COVID-19 at home but its wide spread abroad, the growth rate of imports and exports showed a rapid recovery following the initial sharp decline on the impact of the outbreak. The recovery of exports was significantly faster than that of imports. From January to November 2020, the total volume of imports and exports was USD4,173.38 billion, a year-over-year increase of 0.6%, and the trade surplus increased by USD86.1 billion from the same period in 2019 (see Figure 3). The cumulative year-over-year growth rate of exports denominated in US dollars rebounded from the lowest point of –17.2% in February to 2.5% in November, which exceeded the rate over the same period in 2019 by 2.7%; the cumulative growth rate of imports denominated in US dollars recovered from –8.2% in May to –1.6% in November, which is also higher than the rate over the same period in previous year (–4.3%). On the one hand, the growth rate of exports of anti-pandemic protection materials represented by masks, protective clothing, and medical equipment accelerated, effectively driving export growth. Meanwhile, the development of cross-border e-commerce effectively alleviated the adverse impact of COVID-19 on foreign trade and has become an important channel for stabilizing the growth of imports and exports under the influence of COVID-19.

However, it should also be noted that China’s foreign trade is still subject to many uncertain and unstable factors. The rapid appreciation of RMB is not conducive to maintaining price competitiveness in exports. The recovery of foreign production capacity will also cause the “substitution effect” of China’s

\(^2\) Industrial enterprises with annual revenue of 20 million yuan or more from their main business operations.
exports to gradually fade. The risks of economic and trade frictions and geopolitical risks still cannot be ignored. We propose that the Chinese government should deepen reforms, especially in the service sector, which could facilitate consumption upgrading and promote new engines for high-quality development.

Figure 3  Major Indicators of Trade
Source: Huang et al. (2017); Huang et al. (2018); Huang et al. (2019); Huang et al. (2020); and IAR, SUFE (2016, 2017, 2018, 2019, 2020).

2.4 Greater Foreign Exchange Volatility with RMB Appreciation against USD

In the midst of the unprecedented pandemic and severe international financial market turbulences surrounded by internal and external uncertainties, China’s foreign exchange reserves experienced increased volatility in 2020, though in Q4 it went back to the same level as in Q1, at USD 3.1 trillion. The two-way fluctuations of the RMB/USD exchange rate also increased, showing an “N-shaped” pattern: appreciation followed by depreciation and then by appreciation again (see Figure 4). In the second half of 2020, RMB appreciated against the USD to a rate around 6.60. As emphasized in our previous reports,3

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3 See Huang et al. (2019), Huang et al. (2020), and IAR, SUFE (2019, 2020).
heated trade tensions between the US and China were a key factor behind the risen volatility of the RMB/USD exchange rate. Such factors as those reflected in the trend of the US dollar index, the supply of and demand for foreign exchange settlements and sales, as well as exchange rate policies will also be crucial factors in determining the RMB exchange rate.

2.5 Narrowed Gap between CPI and PPI

The growth rate of price in 2020 declined compared to 2019. The gap between consumer price index (CPI) and producer price index (PPI) narrowed in general and the year-over-year growth rate of GDP deflator declined first and then rose (see Figure 5). Affected by COVID-19 and other factors, food prices and international crude oil prices, the year-over-year growth rate of CPI in 2020 fell sharply, from 5% to −0.50%. For the core CPI excluding food and energy, the year-over-year growth rate also declined remarkably, hitting a new low of 0.5% in July since the indicator was introduced in 2013. On the other hand, PPI rose from −3.70% in June, to −1.50%, and the gap between the PPI and CPI also
dropped, from 6.40% in April to 1% at the time of our writing. The year-over-year growth rate of GDP deflator followed a “V-shaped” pattern, with a cumulative year-over-year growth rate of 0.7%.

Since 2016, our reports have persistently stressed the importance of constructing a broader inflation index to encompass asset prices for the Chinese economy. In making progress toward this direction, we have already constructed a global consumer price index (GCPI) including housing price index based on the household micro survey data of the National Bureau of Statistics and the Hundred City Housing Price Index. We find that the growth rate of GCPI in November 2020 was positive on a year-over-year basis.

2.6 Partially Recovered yet Still Stressed Labor Market

2020 marked another year in which China’s aging population is increasing and its demographic dividend is vanishing. The unemployment rate for the whole year declined after rising first and the labor market remained at risk because of the education mismatch. After February 2020, the nationwide surveyed urban
unemployment rate was as high as 6.2%. Then this rate declined with volatility of 5.2% in November with a year-over-year decrease of 0.1%. The surveyed urban unemployment rate and its change in 31 large cities was the same as the nationwide values (see Figure 6). Although the current overall employment situation tends to improve, the structural imbalance of employment caused by COVID-19 is still serious, which is mainly reflected in the declining number of migrant workers employed and the difficulty in obtaining employment by college graduates (Hall, 2010).

![Unemployment Rate](source: NBS (2018–2020).

The large degree of education mismatch in China’s labor market means that compulsory education does not match the skill training of workers with the demand of labor market, and human resources are not fully developed and utilized, which is obviously not conducive to the improvement of productivity. We thus call for education reforms to optimize education methods and improve the supply and demand structure of labor market, to promote the accumulation of human capital.

### 2.7 Steady Money Supply and Improved Real Sector Financing Condition

In 2020, various monetary policy measures focused on supporting real economic
activities and were generally looser than in the previous two years, with the growth rate in money supply generally matching the demand for financing the real economy. This played a positive role in helping China’s economy return to a positive growth track (see Figure 7). The overall market liquidity was reasonable and abundant, and the overall financing cost of the real economy dropped significantly. Specifically, the M2 measure of money supply increased by 10.7%, 2.5 percentage points higher than that in 2019, additional to the growth rate of the stock of AFRE that registered 13.6%\(^4\), and increased by 3 percentage points compared to year 2019.\(^{5}\) Moreover, by the end of the third quarter of 2020, the

\[\text{Figure 7 Year-over-Year Growth Rate of Money Supply and Aggregate Financing to the Real Economy (AFRE)}\]

Source: Huang and Tian (2016); Huang et al. (2017); Huang et al. (2018); Huang et al. (2019); Huang et al. (2020); and IAR, SUFE (2016, 2017, 2018, 2019, 2020).

\(^4\) The year-over-year growth rate of AFRE is 13.6% by the current measurement in 2020, while it is only 12% in the old measurement.

\(^5\) AFRE refers Aggregate Financing to the Real Economy to the outstanding of financing provided by the financial system to the real economy at the end of a period. Before July 2018, AFRE included RMB loans, foreign currency-denominated loans (RMB equivalent), entrusted loans, trust loans, undiscounted bankers’ acceptances, net financing of corporate bonds, and equity financing on the domestic stock market by non-financial enterprises. Since July 2018, The People’s Bank of China (PBC) has improved the statistical method for AFRE, and incorporated in it “Asset-backed Securities of Depository Financial Institutions” and “Loans Written off,” which are summarized into a sub-item of “Other Financing.” Since September 2018, the PBC has incorporated “Local government special bonds” into AFRE, which is recorded when claims and obligations are registered at depositories.
weighted average interest rate of all loans was 5.12%, decreased by 0.5 percentage points on a year-over-year basis; among which, the weighted average interest rates of ordinary loans, mortgage loans, and negotiable instruments were 5.31%, 5.36%, and 3.23%, respectively. All in all, even in the face of uncertain domestic and international circumstances, PBC still has sufficient flexibility in its monetary policy toolbox.

Based on our projection of the economic recovery next year, the expansion of domestic demand still requires reasonable liquidity supports, and the monetary policy is likely to remain prudent. Under the dual-pillar system of monetary policy and macro-prudential management, liquidity management tools and financial regulatory policies will likely cooperate with each other to achieve a fundamentally stable macro leverage ratio to prevent or resolve major financial risks.

2.8 Default Risk of Local Government Debt

The default risk of local government debt cannot be ignored. In response to COVID-19 and the decline in economic growth, the scale of local government debt increased rapidly (see Figure 8). As of the end of November 2020, a total of 1810 bonds had been issued nationwide, with a total issuance of 6.26 trillion yuan, and the total scale exceeded that in 2019 by nearly 2 trillion yuan. As the issuance scale increased significantly, at the same time, the issuance interest rate also rebounded significantly. The weighted average issuance interest rate reached a high of 3.67% in October. In addition to the large stock of explicit debts, local governments also bear implicit debts that are difficult to estimate accurately and manage effectively, and their scale may even far exceed explicit debts. The current local government debt will create huge debt repayment pressure in the future, which means that there will be a great local default risk on local government debt.

Furthermore, by matching the micro data of China’s banking industry with the data of local government debt, we find that in the context of the increasingly close interrelationship among various sectors of the economy, and with the rapid increase in the scale of local government debt, the debt repayment risk of local governments can easily spillover to the financial system and induce systemic financial risks. It should be noted that local government debt has become an important factor affecting financial stability, and it is urgent to resolve the risk of
local government debt. Therefore, we propose that regulating local governments’
borrowing behavior requires not only to vigorously improve fiscal transparency,
but also to accelerate reforms by local governments, so that economic potential
can be fully released, the quality of economic development can be improved, and
the growth of local economy and fiscal revenue can support that of the debt.

Figure 8  Issuance Scale and Interest Rate of Local Government Bonds
Source: Huang et al. (2018); Huang et al. (2019); Huang et al. (2020); and IAR, SUFE (2018,
2019, 2020).

2.9  Soared Household Indebtedness and Declined Purchasing Power of
Middle-Income Class

Household debt has always been the focus of our reports. Affected by COVID-19,
household sector indebtedness has risen again. As of the third quarter of 2020,
the household sector leverage ratio (the ratio of household debt balance to GDP)
reached 64.1% (see Figure 9), an increase of 4.4 percentage points from the
previous quarter. While the rapid growth of total household debt is already
alarming, focusing solely on the aggregate figure can significantly underestimate
the true risk and mask the severity of the problem. The large amount of debt
accumulated by the household sector weakened household cash flow, dragging
down consumption and becoming a constraint to pumping the internal circulation.
As we showed in our previous reports using micro-level data, underlying the soared household indebtedness is a significant degree of heterogeneity, which should be even more worrisome. In this report, using online survey data covering COVID-19 impact period, we find that compared to households with houses but without loans, households with houses and loans and households without houses suffered more consumption decline during this period.

![Figure 9 Household Leverage Ratio](source)


How to stimulate domestic demand and increase residents’ willingness to consume has become a key in advancing demand-side reforms. In this process, it is particularly important to improve the purchasing power of middle-income groups. Analyzing the data of China Family Panel Studies (CFPS), we find that the size of the middle-income class is growing, but its income and consumption do not match with each other—many middle-income families are unwilling to increase consumption with their income.

Based on this fact, we call on the household sector to be cautious in increasing indebtedness. Policies should also be tilted towards the household sector. Specifically, the government should improve the social security system, and focus on the differentiation and accuracy of regulatory policies. For low- and middle-income groups in difficulty, financial subsidies should be increased in a
timely manner, and the scope of unemployment insurance should be expanded to consolidate the demand basis for the domestic economic cycle.

2.10 Systemic Risks and Systemically Important Financial Institutions

In 2020, the capital adequacy ratio of various types of commercial banks in China showed a downward trend, and the vulnerability of the banking system increased. The prevention of systemic risks should remain a primary mission of monetary and macro-prudential policies. To this end, it is critical to identify systemically important financial institutions. We have tested system stability and identified systemically important banks using a conditional value at risk (CoVaR) model along with a network model. Our analysis using the CoVaR model with the daily data from 36 listed commercial banks for the period 2018–2020 indicates that the five biggest state-owned banks maintained their systemic importance, and they remained less vulnerable than other commercial banks to the exposure of systemic risks. Our analysis based on the network model reaches a similar conclusion. These analyses together suggest that the key to maintaining the stability of China’s banking system is to ensure the soundness of the five biggest state-owned banks.

In the context of unsolid foundation for domestic economic recovery and economic uncertainty, we matched micro data of China’s banking industry and economic uncertainty index data, and find that rising economic uncertainty significantly reduced banks’ capital buffer level. This negative effect is more obvious in urban commercial banks and rural commercial banks. Therefore, we believe that close attention should be paid to capital changes in urban commercial banks and rural commercial banks, and to the adverse impact of individual bank’s risk on the entire financial system. This is a key to maintaining the stability of China’s banking system in 2021.

2.11 Digital Currency and RMB Internationalization

Since the PBC established a digital currency research team in 2014, China has been actively researching and building the issuance and operation structure of digital currency. In terms of design goals, Digital Currency/Electronic Payment

6 The five biggest state-owned banks are: Industrial and Commercial Bank of China, China Construction Bank, Bank of China, Bank of Communications and Agricultural Bank of China.
(DC/EP) aims to build a safe, fair, and efficient digital payment platform that encourages innovation. In this report, we analyzed for the first time the possible economic impact of the digital RMB as official currency. On the one hand, the DC/EP system can greatly enhance the timeliness and scope of central bank information collection, which is conducive to currency issuance management and macroeconomic regulation, but it will also cause people to worry about personal information security. On the other hand, the DC/EP system can help the government implement fiscal policies more effectively, and contribute to the implementation of transfer payment policies such as targeted taxation and targeted poverty alleviation.

It is worth mentioning that, due to its technical superiority in cross-border payments, the digitalization of RMB will be an important step in its internationalization. But we need to be alert to the challenges brought by the launch of Libra Network. We believe that the biggest problem hindering the internationalization of digital RMB at this stage may be transaction information security and privacy protection. The transaction information in the DC/EP system is “controllably anonymous,” that is, anonymous to other participants except the PBC. Under this centralized bookkeeping model, the PBC will gain a huge information advantage. When the digital RMB is only circulated and used within China, this information advantage will not cause problems. However, if transactions using digital RMB overseas need to be completed through the DC/EP system, or some payment systems that interact with the DC/EP system, then the transaction information may be obtained by the PBC. This will inevitably cause other countries to worry about information security and privacy protection, which will hinder or even prevent the internationalization of the digital RMB.

2.12 External Uncertainties

In 2020, the world economy was hit by COVID-19, and many countries fell in deep recessions.\(^7\) In response to the pandemic, countries around the world have

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\(^7\) According to IMF (2020), the global economy is predicted to shrink by 5.2% in 2020, of which advanced economies are expected to shrink by 7%, and emerging market and developing economies are expected to shrink by 2.5%. In October 2020, the IMF (2020) predicted that the global GDP growth rate in 2020 would be –4.4%, and predicted that developed and emerging market economies will have huge negative output gaps and high unemployment rates in 2020 and 2021.
introduced large-scale fiscal and monetary stimulus policies, which eased the impact of COVID-19 in the short term. However, in the long run, the “sequelae” of large-scale stimulus policies have also begun to appear in some countries. The possibility of sovereign debt crises in some European countries and emerging market economies cannot be ruled out. There is still great uncertainty in the recovery of the world economy from the pandemic shock.

The recent years have seen a counter-globalization movement, and the growth of world trade has slowed down significantly. Trade tensions between the US and China have not receded much. The WTO dispute settlement mechanism has almost been paralyzed, and the uncertainties and risks of foreign investment have sharply increased. For economic security, global production has become extremely difficult. Countries pay more attention to the safety and integrity of industrial chains and supply chains, which further intensifies the anti-globalization movement and trade protectionism. In addition, China is also facing the risks of the withdrawal of some foreign companies, FDI decline, and the further decrease in foreign trade demand.

Furthermore, a series of geopolitical events such as the China-US relations in the Biden era, the signing of the Regional Comprehensive Economic Partnership (RCEP), China’s announcement of its willingness to join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the sharp deterioration of China-Australia relations, and the China-EU Investment Agreement have led to increased uncertainties in the international economic environment. In such circumstances, global economic turmoil will likely be recurrent in 2021. Facing the severe external challenges, it is necessary and urgent for China to implement structural reforms and discover new growth and development engines under the new “dual circulation” strategy.

### 3 Near to Medium Term Forecasts and Policy Simulations

Our semi-structural forecasts, counterfactual analyses, and policy simulations are based on quarterly IAR-CMM model. Table 1 displays baseline growth projections for major macroeconomic indicators for the fourth quarter of 2020, and for each quarter of 2021, along with the realizations of these variables in the first three quarters of 2020.\(^8\) Five major assumptions about external

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\(^8\) The projections reported here were obtained at the end of 2020.
environments underlying the baseline forecasts are summarized below.

| Table 1 Near to Medium Term Baseline Forecast of Yearly Growth Rate$^a$ |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                  | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 |
| GDP              | −6.8    | 3.2     | 4.9     | 5.7     | 2.1     | 17.0    | 6.7     | 6.1     | 5.8     | 8.4     |
| Investment       | −16.1   | −3.1    | 0.8     | 2.6     | 2.6     | 18.8    | 7.3     | 5.7     | 5.7     | 5.7     |
| Consumption      | −11.9   | −3.9    | 0.9     | 4.7     | −2.2    | 23.2    | 10.9    | 6.4     | 5.4     | 10.8    |
| Export$^b$       | −13.3   | 0.1     | 8.9     | 15.6    | 3.6     | 11.3    | 7.0     | 1.2     | 1.0     | 4.4     |
| Import           | 2.9     | −9.7    | 3.2     | 4.1     | 11.0    | 14.2    | 5.8     | 3.7     | 8.3     |
| CPI              | 5.0     | 2.7     | 2.3     | −0.2    | 2.4     | −1.6    | 0.7     | 0.6     | 1.1     | 0.2     |
| PPI              | −0.6    | −3.3    | −2.2    | −1.5    | −1.9    | −0.6    | 1.3     | 1.0     | 0.6     | 0.6     |
| GDP deflator     | 1.6     | −0.1    | 0.6     | 1.0     | 0.8     | 1.0     | 2.0     | 1.6     | 2.5     | 1.8     |

Note: $^a$ The statistics reported in the table are based on real measure for GDP but nominal measures for the other variables. Yearly growth rate is cumulative for investment but noncumulative for the other variables. $^b$ The import and export statistics here are all measured in USD and are comparable to those reported by the customs.


(1) The effective rate of COVID-19 vaccination in the US will reach 50% in 2021.

(2) The world economy will gradually recover in 2021. Real rates of economic growth in 2021 are projected to be 4.2% for the US, 3.9% for the Eurozone, 2.3% for Japan, and 6.2% for the Association of Southeast Asian Nations (ASEAN).

(3) The Federal Reserve will set the target range of the federal funds rate between 0–0.25%, and will use the unconventional monetary policy tools of quantitative easing to ensure that the US economy gradually returns to its employment and inflation targets.

(4) The RMB exchange rate against USD is expected to fluctuate around 6.5 but within a reasonable band in 2021.

(5) Trade tensions between the US and China will continue to exist in 2021.

There are also six baseline assumptions concerning China’s internal environment.

(1) COVID-19 development will unfold following the trajectory since 2020:Q3.
(2) Household leverage ratio increases sharply, and has negative impact on consumption. It is expected to rise by additional 6 percentage points in 2021.

(3) Persistent recovery of infrastructure construction investment, real estate development investment, and manufacturing investment.

(4) According to the data released by the China Banking and Insurance Regulatory Commission, as of the end of 2020:Q3, the non-performing loan ratio of commercial banks is 1.96%. We assume that by the end of 2020, this ratio rises to 2.05%.

(5) Fiscal policy is expected to remain stimulative, with the deficit rate contracted to 3%.

(6) Monetary policy is expected to remain prudent, flexible and appropriate in 2021. We postulate the most likely monetary policy stance in 2021 to be a combination of two 25-basis point reductions in the required reserve ratio (RRR) and a 10-basis point reduction in the benchmark interest rate.

The take-home from our baseline forecast, as can be seen from Table 1, is that following the COVID-19 outbreak in the early 2020, the domestic economic growth rate exhibits a “V-shaped” rebound pattern. The economic recovery trend will continue in 2021. Coupled with the impact of a low base in 2020, the annual real GDP growth rate of 2021 is expected to be 8.4%.

In light of the uncertainty surrounding the economic outlook, we have considered alternative scenarios to explore the implications for the outlook of alternative forecast assumptions. Specifically, we have studied alternative scenarios to accommodate for the various internal and external economic factors. Dividing them into eight groups, with each highlighting a particular risk factor, we report below the major assumptions and results for each of the alternative scenarios.

Scenario 1 pertains to a pessimistic outlook on declining purchasing power of middle-income groups. In this scenario, the growth rates of consumption, exports, imports, and CPI are assumed to decline by 1.8%, 0.5%, 0.3%, 0.2%, respectively. Fixed asset investment is assumed to decrease by 1.2% on a year-over-year basis cumulatively. Overall, the annual real GDP growth rate will be 1.4% lower than in the baseline scenario.

Scenario 2 takes on an optimistic outlook concerning demand-side reforms. In this scenario, government spending on people’s wellbeing is assumed to rebound
to its pre-COVID-19 growth rate, which on average is around 10%. This rate is 5% higher than in the baseline scenario and will result in an increase in the growth rate of consumption by 1.1%. At the same time, the growth rates of imports and exports are assumed to increase by 0.2% and 0.3%, respectively, and the year-over-year growth rates of CPI and PPI are assumed to increase by 0.1% and 0.2%, respectively. Overall, the annual real GDP growth rate will be 0.7% higher than in the baseline scenario.

Scenario 3 encompasses two cases corresponding to greater and smaller short-term impacts of reforms toward an orderly capital market. In the case with greater short-term impact, household liquidity is assumed to be tightened by 2%, household consumption level is assumed to fall by 1.4% from the baseline scenario, and the year-over-year real GDP growth rate in 2021 will drop by 0.8% compared to the baseline forecast. In the case with smaller short-term impact, household liquidity is assumed to be tightened by 0.5%, household consumption level is assumed to fall by 0.35% from the baseline scenario, and the year-over-year real GDP growth rate in 2021 will drop by 0.2% compared to the baseline forecast.

Scenario 4 considers a pessimistic outlook on soared local government debt. In this scenario, the increase in local government debt ratio will cause the cumulative growth rate of investment, the growth rate of consumption, and the growth rate of real GDP in 2021 to fall by 1.1%, 0.2%, and 0.4%, respectively, compared to the forecasts in the baseline scenario.

Scenario 5 considers two cases with different pessimistic outlooks due to increased corporate leverage ratio, namely, conservatively pessimistic sub-scenario and pessimistic sub-scenario. In the conservatively pessimistic sub-scenario, the average default rate of state-owned enterprises (SOEs) is maintained at the current level of 0.5%, and the amount of funds involved in defaulted bonds does not exceed 100 billion yuan. Compared to the baseline scenario, these assumptions will cause the non-performing loan rate of commercial banks to increase by 0.2%, and the cumulative growth rate of investment to decrease by 0.4%. As a result, the real GDP growth rate will be 0.3% lower than in the baseline scenario. In the pessimistic sub-scenario, the average default rate of SOEs rises to 1%, and the amount of funds involved in defaulted bonds exceeds 100 billion yuan. Compared to the baseline scenario,
these assumptions will cause the non-performing loan rate of commercial banks to increase by 0.5%, and the cumulative growth rate of investment to decrease by 1.1%. As a result, the real GDP growth rate will be 0.8% lower than in the baseline scenario.

Scenario 6 considers two cases of effective rates of COVID-19 vaccination in the US in 2021. One is 20% (the pessimistic sub-scenario) and the other is 80% (the optimistic sub-scenario), while recall that 50% is assumed in the baseline. In the pessimistic sub-scenario, the decrease in external demand causes exports to fall below the baseline scenario by 1.9%, which will lead to a 0.6% decline in real GDP growth rate in 2021 from the baseline forecast. In the optimistic sub-scenario, the increase in external demand causes exports to rise above the baseline scenario by 1.1%, which will lead to a 0.3% increase in real GDP growth rate in 2021 from the baseline forecast.

Scenario 7 considers two cases with two different degrees of impact of trade tensions between the US and China, namely, conservatively pessimistic sub-scenario and pessimistic sub-scenario, in which China’s exports in 2021 are 2.3% and 4.8% lower than in the baseline, respectively. With the other conditions unchanged and the monetary and fiscal policies kept the same as in the baseline, the real GDP growth rate in 2021 will be 8.0% and 7.6% in these two cases, respectively.

Scenario 8 encompasses two cases with different degrees of impact from the overall uncertainty at home and abroad, namely, pessimistic sub-scenario and optimistic sub-scenario. In the pessimistic sub-scenario, the overall uncertainty rises significantly, causing the year-over-year growth rate of consumption to decrease by 2.6%, and the cumulative year-over-year growth rate of fixed asset investment to decrease by 2.8%. At the same time, the growth rates of imports and exports drop slightly by 0.8% and 1.5%, respectively. The two growth rates of CPI and PPI all fall by 0.3% on a year-over-year basis. In 2021, the real GDP growth rate will drop to 6.4%, which is 2% lower than in the baseline forecast. In the optimistic sub-scenario, smaller overall uncertainty, together with other optimistic outlooks (for example, demand-side reforms will achieve the intended initial outcomes, the effective rate of vaccination is greatly increased, COVID-19 is effectively contained globally, and trade tensions between the US and China are alleviated, etc.), cause the growth rates of domestic consumption and
investment to increase by 2.5% and 1.4%, respectively. At the same time, the
growth rates of imports and exports increase by 2.3% and 2%, respectively, and
the growth rates of CPI and PPI increase by 0.2% and 0.3%, respectively. As a
result, the real GDP growth rate in 2021 will be 10%. Combined with our
forecast of 2.1% GDP growth rate in 2020, under the optimistic scenario, China’s
annual GDP growth rate will resume the long-term trend of 6% by the end of
2021.

In addition to providing the baseline and alternative forecasts, and given that a
high enough economic growth rate is needed to meet the longstanding goal of
doubling the GDP and income in the second decade of the 21st century, it is also
fitting to explore a menu of monetary and fiscal policy options that may help
achieve that implicit growth rate. We consider a growth rate of 8.4% in 2021. We
do not discuss Scenario 2 (demand-side reforms), the optimistic outlook in
Scenario 6 (COVID-19 vaccination), and the optimistic outlook in Scenario 8
(overall uncertainty at home and abroad), because in those scenarios the implicit
target is already met or even exceeded without additional policy stimuli.
Therefore, we restrict our discussion to the Baseline Scenario, Scenario 1
(declined purchasing power of middle-income groups), Scenario 3 (reforms
toward an orderly capital market), Scenario 4 (soared local government debt),
Scenario 5 (increased corporate leverage ratio), the pessimistic outlook in
Scenario 6 (COVID-19 vaccination), Scenario 7 (trade tensions between the US
and China), and the pessimistic outlook in Scenario 8 (overall uncertainty at
home and abroad). Table 2 summarizes the configurations of monetary and fiscal
policy options that may help achieve the implicit targets in 2021 in these
scenarios.

1. Baseline: No additional monetary easing or fiscal stimulus is needed.
2. Scenario 1: Government spending needs to be increased by 982.55 billion
   yuan, amounting to a 29.77% increase in budget deficit relative to the baseline.
The annual deficit rate is about 3.81%. In addition, two additional reductions in
   the RRR, 50 basis points each, are needed.
3. Scenario 3 with smaller short-term impact: Fiscal deficit needs to be
   increased by 75.581 billion yuan, exceeding the baseline deficit by 2.29%. The
   annual deficit rate is about 3%.
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<td>20 BP reduction in RRR, twice</td>
<td>-</td>
<td>20 BP reduction in RRR</td>
<td>20 BP reduction in RRR twice</td>
<td>20 BP reduction in RRR, twice</td>
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<td>3.07</td>
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(4) Scenario 5 with pessimistic outlook: Fiscal deficit needs to be increased by 151.16 billion yuan, 4.58% greater than the baseline deficit. The annual deficit rate is about 3.07%. Furthermore, an additional reduction of 20 basis points in the RRR relative to the baseline is needed.

(5) Scenario 4 and Scenario 7 with conservatively pessimistic outlook: Fiscal deficit needs to be increased by 226.74 billion yuan, 6.87% greater than the baseline deficit. The annual deficit rate is about 3.14%. Furthermore, an additional reduction of 20 basis points in the RRR relative to the baseline is needed.

(6) Scenario 6 with pessimistic outlook: Fiscal deficit needs to be increased by 377.9 billion yuan, 11.45% greater than the baseline deficit. The annual deficit rate is about 3.27%. Furthermore, two additional reductions in the RRR, 20 basis points each, relative to the baseline are needed.

(7) Scenario 3 with greater short-term impact, Scenario 5 with pessimistic outlook, and Scenario 7 with pessimistic outlook: Fiscal deficit needs to be increased by 529.06 billion yuan, 16.03% greater than the baseline deficit. The annual deficit rate is about 3.41%. Furthermore, two additional reductions in the RRR, 20 basis points each, relative to the baseline are needed.

(8) Scenario 8 with pessimistic outlook: Fiscal deficit needs to be increased by 1436.03 billion yuan, 43.52% greater than the baseline deficit. The annual deficit rate is about 4.22%. Furthermore, two additional reductions in the RRR, 50 basis points each, relative to the baseline are needed.

We want to stress that our alternative scenario analyses and policy simulations should not be viewed as suggesting or recommending certain monetary and fiscal stimuli for the government to meet the implicit targets. Rather, we urge that these kinds of stimulus packages should be used with caution in light of their side effects, especially from a long-run perspective.

4 Measures for Achieving Unblocked National Economic Circulation

The COVID-19 outbreak shocked both the demand side and the supply side of the Chinese economy entering year 2020. Entangled with the subsequent impact on the world economy, this has generated tremendous uncertainties and unprecedented challenges both internally but especially externally. The complexities and risks surrounding recovery from the pandemic shock and
concerning tensions in international relations motivated China to promote the new “dual circulation” strategy. In this background, the annual Central Economic Work Conference held in December 2020 emphasized the need to accelerate the construction of the new development pattern that is focused on internal circulation and features positive interplay between domestic and global economies.

In speeding up the construction of the new “dual circulation” development pattern and in smoothing the national economic circulation, major tasks need to be accomplished at both the supply side and the demand side, as well as in the international economic circulation. On the supply side, structural and market-oriented reforms need to be deepened. In particular, main obstacles need to be overcome to improve enterprise efficiency and establish equal treatment of different ownerships. To this end, there is still a long march toward achieving competitive and ownership neutrality. Multiple problems on the demand side also need to be resolved, including sub-optimality in the distribution of national income and wealth, deficiency in the tax code that harms middle-income groups, and inability or unwillingness and low marginal propensity to consume due to the unsound social security system. Challenges in the international economic circulation are also daunting, as economic globalization has encountered a countercurrent, whereby the impact of COVID-19 has further aggravated the trajectory. Unfolding of the world economy from the pandemic is still full of uncertainties, and large external uncertainties will persist into the foreseeable future.

Faced by the challenges, how can China achieve unblocked economic circulation? This report proposes the following measures that complement each other’s roles in meeting these challenges. First, continue to deepen supply-side structural reforms and improve the safety of industrial chains, establish the basic status of competition policy, providing SOEs, private enterprises, and foreign enterprises with a fair competitive market and business environment based on the principle of ownership neutrality, improve the supply and demand structures of the labor force, and promote the transformation from development driven to innovation driven. Second, focus on the demand-side management, adopt income distribution policies that help nourishing the healthy development of middle-income groups, and improve the social security system to cover "subsistence, aging, sickness, housing, and education” to consolidate the
domestic demand base for the large-scale domestic economic circulation. Third, pay better attention to advancing reforms and orderly opening up, integrate into a higher-level international economic circulation, especially in areas of scientific and technological innovations, and strengthen endogenous driving forces for high-quality development.

To accomplish these tasks ultimately requires deepening reforms in economic governance, national governance, and social governance. Long-term perspective, global view, systematic thinking, and general equilibrium methods of risk management are all needed in dealing with the dialectical relationships among reform, development, stability, and innovation. The report thus proposes that the nation defines clear boundaries for the government governance, improves the social governance, and moves orderly in the direction toward letting market play a decisive role in resource allocation.

5 Conclusion

2021 is both the first year in China’s “14th Five-Year Plan” and the beginning year for achieving its 2035 long-term goal. It is also the year in which the nation will take the first step in building its new “dual circulation” development pattern that rests upon domestic circulation and features positive interplay between domestic and international economies. In this year, Chinese economy will be continuously surrounded by unprecedented complexities and uncertainties in its domestic and international environments. To meet the challenges, China must deepen supply-side structural reforms to help its supply system adapted to domestic demand, enhance macro-demand management to expand effective demand for given supply, and achieve a higher level of dynamic balance between supply and demand. Meanwhile, China should comprehensively improve the level of opening up, form a new economic development pattern of comprehensive and orderly opening, and ultimately promote high-quality economic and social development to achieve the modernization of the national governance system and governance capabilities, and pursue the long-term goal of China’s national rejuvenation in major changes unseen for century. This annual report highlights some major obstacles to accomplishing these tasks and discusses various measures that compromise short-, medium-, and long-term matters for overcoming these obstacles.
References


