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## China under Uncertainty: Outlook, Counterfactual and Policy Simulations, and Reform Implementation—A Summary of Annual Report (2016–2017)

**Abstract** China's macroeconomy is surrounded by increased uncertainties while facing persistent downward pressures entering year 2017. Major external challenges are imposed by the chaotic political climate and disorderly retreat from globalization of the US accompanied with the impending FED rate hikes, which may trigger a destructive trade war and exert pressures on RMB depreciation and capital flight. Remaining ingrained in major internal challenges are the gridlock risks accumulated from excessive financialization of real estate sector and swelling housing market bubbles amid escalating debt levels, and more fundamentally, the continued off-real-to-virtual movement in the general economy and ascendancy of government over market in resource allocation.

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<sup>1</sup> This article summarizes the main findings from a similarly titled annual report released in December 2016 by a research team at the Institute for Advanced Research (IAR), Shanghai University of Finance and Economics (SUFE). Other members of this research team include (in alphabetical order of last names) Xudong Chen, Yuanyuan Chen, Run Liang, Ligu Lin, Lei Ning, Yuqin Wang, Howei Wu, Huabin Wu, Tao Zha, Lin Zhao, Min Zhang, and Mei Zhu.

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Based on IAR-CMM model, which takes into account both cyclical and secular factors, the baseline real GDP growth rate is projected to be 6.5% in 2017 (6.13% using more reliable instead of official data). Counterfactual analyses and policy simulations are also conducted to highlight the convoluted uncertainties surrounding China's macroeconomy. Through the lens of these analyses, we identify a root cause of the weak outlook as the persistently distorted economic structure due to procrastination in reforms of the institutions and governance, which not only impairs China's growth potential but also limits the power of its recent stimulating policies while exacerbating their side effects. Key to successful economic restructuring in the face of adversely evolving demographics are market-oriented reforms, with well-designed strategies to balance short-term stabilization and long-run development. Such reforms should hold center stage in China's transition towards a modern free market economy and regulatory state.

**Keywords** macroeconomic outlook, uncertainty, alternative scenarios, policy simulation, reform, development, governance

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

After another year of lackluster growth, China's macroeconomy continues to face downward pressures in 2017 amid increased internal and external uncertainties. While the government-led stimulus packages helped sustain a GDP growth of 6.7% in 2016, this was done mainly by boosting infrastructure investment and real estate market. These measures already saw diminishing marginal effects on short-run stabilization, and the resultant worsening of distortions in economic structure exacerbated their side effects on long-run growth and development. A direct consequence is further deepening in the already excessive financialization of the real estate sector, which has drained resources away from the real economy into an increasingly speculative property market, created a burgeoning housing market bubble, and increased risks in the banking sector. Externally, the impending FED rate hikes have exerted continued pressures on RMB depreciation and capital outflows, while the increased risk of trade frictions due to the chaotic political climate and disorderly retreat from globalization of the US has aggravated the worries over China's export. These internal and external risks are the major concerns for China's macroeconomic outlook in 2017, and represent one of the greatest challenges for the Chinese government to reach its

goal of doubling 2010 GDP and per-capita income by the end of 2020.

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. Our baseline forecasts indicate that, in 2017, real GDP growth is to continue slowing down in the short to medium term, dropping to 6.5%, or 6.13%, based on more reliable instead of official data.<sup>2</sup> Counterfactual analyses under alternative scenarios concerning various internal and external uncertainties lend support to the robustness of our main conclusions.

In addition to providing the 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 target growth rates that the Chinese government might have in mind. We stress that this kind of stimulus packages should be used with caution in light of their side effects, especially from a long-run perspective.

We show that, although China's recent economic slowdown is partly due to a decline in its potential growth rate, a far more critical cause has to do with its persistently distorted economic structure due to institutional barriers, which prevents the economy from fully releasing its potential. Our simulations of a two-sector general equilibrium model suggest that if various distortions between agricultural and non-agricultural sectors, and between state and non-state sectors, had been removed, annual real GDP growth rate in recent years would have been increased by more than two percentage points. Our analyses confirm that, it is the procrastination and poor implementation of the reforms in institutions and governance that understates the role of market in allocating resources, which in turn leads to dramatic efficiency losses that are responsible for the recent sluggish economic growth.

Hence the punchline of our analyses is that China's recent economic slowdown is both cyclical and secular. As the driving forces behind investment and export-led growth have been gradually dwindling away while the new sources of growth are still under exploration, China has entered into a critical

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<sup>2</sup> The more reliable data are constructed by appropriately correcting the official statistics based on information embedded in total electricity consumption, national railway freight volume, and medium and long term loans, which, as widely believed, may provide more accurate measures of China's real economic activity.

stage of economic restructuring. The greater internal and external uncertainties complicate China's recovery prospect, and render short-run stabilization policies greater side effects on long-run development. In the midst of this uncertain world, rule-of-law based and market-oriented structural reforms, with well-designed strategies properly weighing short-run stabilization against long-run development, should be set to take center stage in China's transformation into a modern free market economy and regulatory state.

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## **1 Macroeconomic Outlook and Major Risks**

### **1.1 Sluggish Consumption Growth with Lackadaisical Demand**

Year-over-year growth of total retail sales of social consumer goods in 2016 kept falling compared with the same period one year ago (see Figure 1). Such deceleration was partly due to the base effect, but more importantly, it highlighted the lackadaisical demand associated with the overheated real estate market and the burgeoning overseas shopping. The feverish property market supported consumption growth by directly boosting spending on housing-related items, such as automobiles and electrical appliances, and by indirectly relaxing the home owners' budget through a wealth effect. However, it also crowded out consumption by amplifying the financial aspect of real property. First, it increased the returns of real estate investment and hence resulted in excessive speculation. Second, it forced first-time home buyers to cut back on consumption of other goods and services. We found the crowding-out effect dominated in 2016, with the elasticity of consumption with respect to housing price estimated to be  $-0.05$ . In the other account, the rapid rise of overseas shopping also weakened domestic demand. Particularly, the demand for high-quality consumer goods, such as cosmetics and luxuries, was increasingly absorbed by the foreign market through "haitao" and "haidai" (Chinese expressions for "overseas online shopping" and "overseas shopping through individual retail representatives," respectively), which reduced demand for domestically produced goods and services. With the tax-reduction policies on automobile purchase phased out and housing market regulations tightened up, consumption growth in 2017 sees continued downward pressures.



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

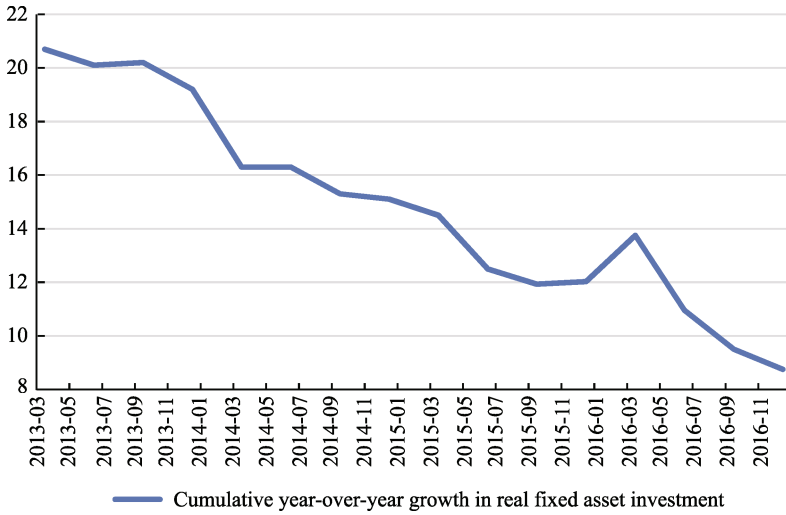
Source: National Bureau of Statistics of China, in %.

### 1.2 Improving Private Investment with Rebounding Profit but Increasing Pressure on Property Investment due to Tightened Regulations

Although partially offset by the brisk growth in infrastructure construction and by the ramp-up in real estate development due to stimulated property sales, cumulative growth of real investment in 2016 largely continued the falling trend started in 2013, with manufacturing investment growth remaining weak (see Figure 2 and Figure 3). Nonetheless, with a strong rebound in producer price index (PPI), pulling the growth of industrial enterprises’ profit back into positive territory, the weakening trajectory of manufacturing investment was reverted, causing nominal investment to stabilize from Q3 2016 (see Figure 3). Similarly, private investment also grew slightly in the second half of 2016, reinforcing the expectation of a weak recovery in manufacturing investment in 2017. However, the deceleration in property sales due to the fusillade of regulatory policies on the housing market could soon hamper real estate investment, exerting increased uncertainty and downward pressures on the real economy.

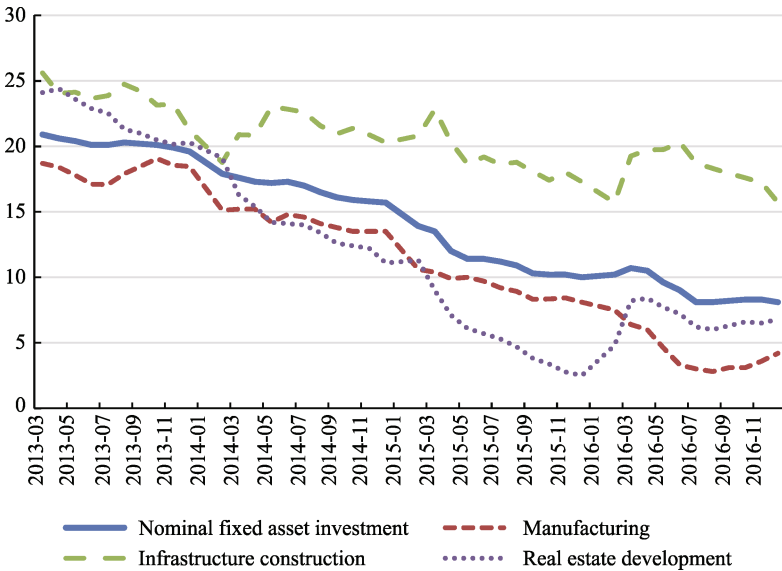
### 1.3 Lackluster Foreign Trade with Heightened External Risks

China’s international trade kept struggling in 2016 (see Figure 4). Compared with 2015, total trade volume in USD reduced 6.8%, with export and import



**Figure 2** Cumulative Real Growth Rate of Fixed Asset Investment

Source: Wind, in %.

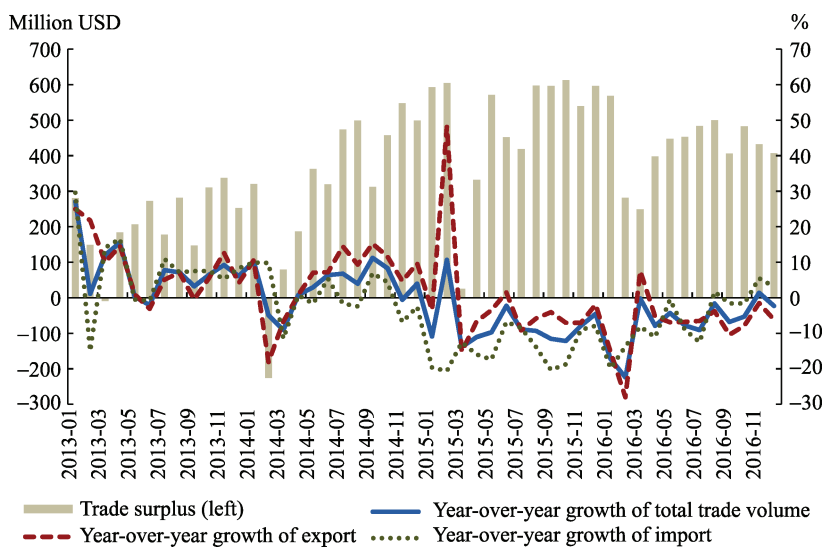


**Figure 3** Cumulative Nominal Growth Rates of Fixed Asset Investment and Its Major Categories

Source: Wind, in %.

down 7.7% and 5.5%, respectively, registering a trade surplus of USD 51.07 billion, 8.32 billion below that of 2015. Strong growth in tourism service imports

widened the deficit in service trade and rocketed prices of imported bulk commodities deteriorated the terms of trade, posing substantial pressures on the balance of international payments. Although the US economic recovery and the brisk depreciation of RMB relative to USD in late 2016 could inject vigor into the sluggish export, the outlook of China’s foreign trade is subject to escalating uncertainties from the recent resurgence of trade protectionism and populism in the external environment. Particularly, the retreat from globalization of the current US administration, especially its critical stance towards China, has aggravated the fear of trade frictions or even a destructive trade war. Hence, although the global economic recovery is likely to continue in 2017, China’s foreign trade is still subject to immense external risks.



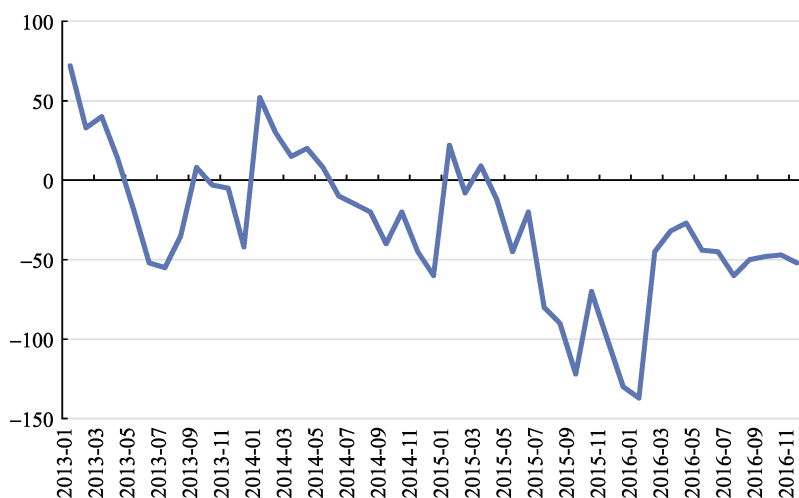
**Figure 4** Major Indicators of Trade (in USD)

Source: Wind, IAR SUFE, in 100 million USD (left), in % (right).

#### 1.4 Continued Pressures on RMB Depreciation amid Rising Concerns over Non-Speculative Capital Outflows

The progress on RMB internationalization in the face of the impending FED rate hikes has exerted continued pressures on RMB depreciation in 2017. Yet a sharp depreciation in the near term is unlikely due to the recent effective tightening in capital account regulations and the increased probability of a less expansionary

monetary environment. To get a quantitative feel about how bad things could go, we estimate the equilibrium USD-CNY exchange rate based on PPP-adjusted housing prices for the two countries, under the assumption of full capital mobility with real property serving as the major asset for the Chinese households and with the difference in interest rates taken into consideration. The results show that the equilibrium USD-CNY exchange rate at the end of October 2016 should have stayed between 7.28 and 7.45 under PPP for GDP, and between 7.45 and 7.61 under PPP for private consumption. When using nominal housing prices instead of PPP-adjusted data, our estimates show that the equilibrium exchange rate should have stayed between 6.84 and 7.01. This suggests that the room for RMB devaluation may be limited in 2017. On the other account, we find that the reduction in China's foreign reserves in late 2016 was not mainly caused by escape of hot money, but exit of foreign investment and exercise of foreign exchange quotas by the Chinese citizens. The magnitude of speculative capital outflows actually remained stable from September to November, which was much lower than its historical high seen in January 2016 (see Figure 5). Looking forward, it is the increased ability of the Chinese citizens to exercise foreign exchange quotas and continued exit of foreign investment in the face of tightened pressures for greater RMB depreciation that could exacerbate the danger of



**Figure 5** Estimated Hot Money Outflows

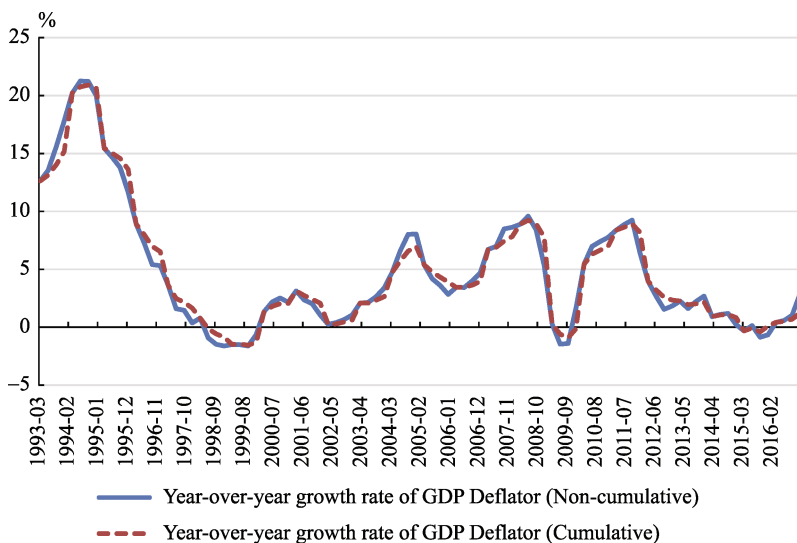
Source: Wind, IAR SUFE, in million USD.



further erosions in China’s abating foreign reserve.<sup>3</sup>

### 1.5 Receding Deflation Scare but Rising Inflation Risk

In year end the fear of deflation was largely receded, but an inflation risk started taking form. In February 2016, CPI regained a yearly growth of over 2%, and stabilized around such a rate for the rest of the year. Meanwhile, yearly growth of PPI turned from negative to positive in September 2016 (the first time since March 2012), and maintained strong upward momentum afterwards, reaching 5.5% in December 2016. Similarly, GDP deflator also accelerated, growing at the rate of 0.42%, 0.58%, 1.04% and 2.9% on year-over-year basis for each of the four quarters, with a cumulative yearly growth of 1.21% by the end of 2016 (see Figure 6). Considering the delayed effects of easing monetary and fiscal policies, the soaring housing price in 2016, and the expectations of rising core CPI and PPI, China’s macroeconomy is faced with significant inflation risks in 2017.



**Figure 6** Growth Rate of the GDP Deflator

Source: IAR SUFE, in %.

<sup>3</sup> Based on our estimation, the entire stockpile of foreign reserves would be exhausted should only 5% of the Chinese citizens (roughly the total population of Beijing, Shanghai, and Shenzhen) exercise their annual quotas of USD 50,000 in foreign exchange.

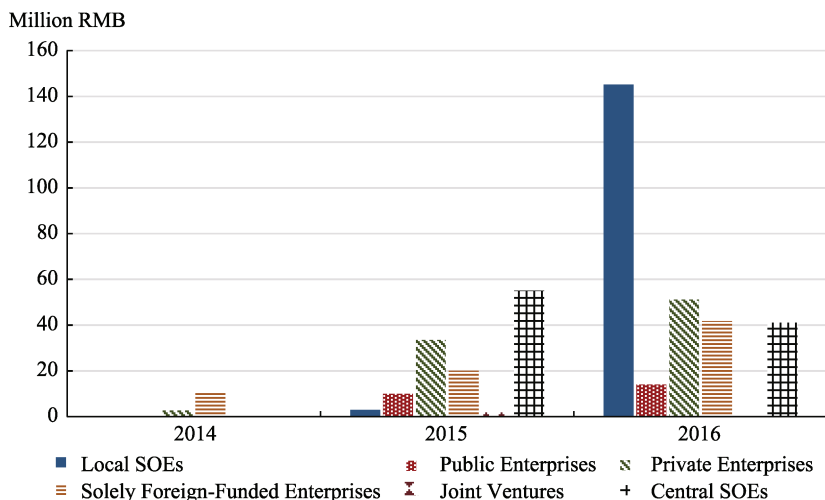
## 1.6 Escalating Financial Risks with Swelling Real Estate Bubbles

Led by first- and second-tier cities, housing price rose rapidly nationwide in 2016 despite weak economic conditions. Meanwhile, the residential housing loans were also quickly accumulating. By the end of 2016, the balance of individual housing loans in major financial institutions had amounted to RMB 19.14 trillion, a 4.96 trillion increase, or 35% up, compared to the figure in the end of 2015. Its share in total loan outstanding of major financial institutions had also climbed to 18% by the end of 2016, 3 percentage points up from one year earlier. Soaring housing price has already ramped up the risks on the balance sheet of the banking sector and has highlighted itself as one of the greatest challenges faced by China's macroeconomy in 2017. Using information of property loans, we have studied the consequences of a burst of real estate bubbles on commercial banks' NPL ratio. Our results suggest that a drop of 10%/20%/30% in the property price would lead to an increase in banks' NPL ratio by 0.4%/1.8%/3.4%, which severely degrades the operational conditions of the commercial banks and drastically increases the vulnerability of the banking sector.

## 1.7 Growing Risks from Local Government Debt and Corporate Debt

With an estimated debt-to-GDP ratio of about 41%, the overall debt load of the government was moderate in 2016, and such a situation is likely to continue in 2017. However, the risks of local government debt are immense, which can be viewed from three aspects. First, year 2017 is likely to see a large amount of new local government debt due to the probable continuation of stimulative fiscal policies, which in turn would drive up interest rates in the bond market and increase the borrowing cost of local governments. Second, it is hard to accurately measure the credit risk of local governments due to heterogeneities in debt level and structure among provinces and cities. Exacerbated by the opaque and intricate financing platforms and insufficient information disclosure, risk management of local government debt becomes even more difficult. Third, tightened regulations on the real estate market could cut the revenues from land sales, which could increase the debt burdens of local governments that overly rely on land financing. On the other account, the risks of corporate debt are also rapidly growing. The debt obligation of the state owned and state share-holding

enterprises alone was estimated to have reached 121% of GDP by the end of 2016, exceeding that of 2014 by 18 percentage points. The size of debt outstanding associated with corporate default reports also increased dramatically in 2016, particularly for local SOEs (see Figure 7). With distorted investment structure and inefficient allocation of financial resources, debt risks remain immense in 2017.



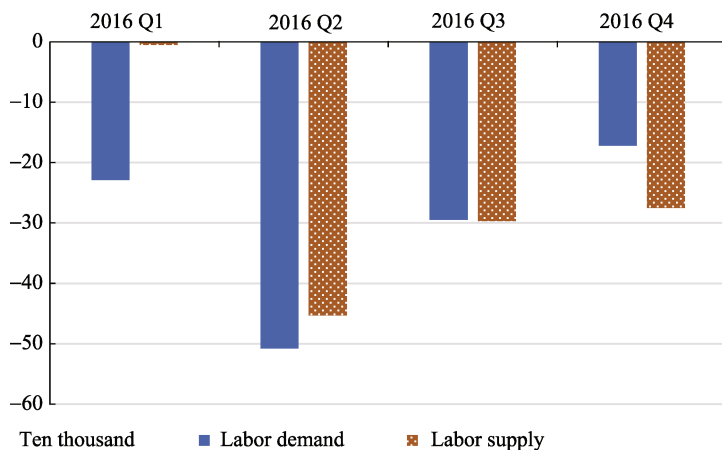
**Figure 7** Debt Outstanding Associated with Corporate Default Reports

Source: Wind, in 100 million RMB.

### 1.8 Sluggish Labor Market with Limited Effect from Stimulus Policies

Labor market weakened further in 2016, with labor demand and supply declining in all of the four quarters from the same period in 2015 (see Figure 8). In Q4 2016, roughly 4.34 million job vacancies were opened and roughly 3.85 million jobseekers entered into the market, declining 4.0% and 7.1% on year-over-year basis and 9.6% and 11.3% from the preceding quarter. Based on a DMP search-matching model that we have developed for China’s labor market, we estimate a decline in matching efficiency of 21% from 2008 to 2014, and the simulations of the model suggest this drop as a major cause for China’s sluggish labor market. The simulation results also suggest that the stimulus policies, which led to large-scale investment in infrastructure and real estate, did not effectively boost labor demand. As our counterfactual analyses reveal, this is

likely due to the rapid acceleration in wage rate that reduced firms' incentives to create jobs. With escalating restructuring frictions, inefficient resource allocation, and uncertain economic conditions, China's labor market faces continued downward pressures in 2017.



**Figure 8** Yearly Changes in Labor Demand and Supply in 2016, by Quarters

Source: Market Information Center of Human Resources of China, in 10 thousand RMB.

## 2 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 each quarter of 2017, along with the realizations of these variables in the four quarters of 2016.<sup>4</sup> Four major assumptions about external environment underlying the baseline forecast are summarized below.

(1) Global recovery assumptions for major developed economies are taken from IMF October 2016. Rates of economic growth in 2016 are projected to be 1.6% for the US, 1.7% for the Eurozone, and 0.5% for Japan;

(2) Prices of certain international bulk commodities are expected to keep rising;

(3) Based on information available by the end of 2016, we assumed a 25 basis

<sup>4</sup> The projections reported here were obtained at the end of 2016.

point federal funds rate hike in 2017. Clearly, such an assumption is no longer realistic in light of the recent progress;

(4) The exchange rate of RMB against USD is expected to depreciate to 7.2 in 2017.

**Table 1** Near to Medium Term Baseline Forecast of Yearly Growth Rate<sup>5</sup>

	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2016	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2017
GDP	6.7	6.7	6.7	6.8	6.7	6.6	6.5	6.4	6.5	6.5
GDP (adjusted)	6.35	6.35	6.35	6.46	6.35	6.25	6.13	6.05	6.13	6.13
Consumption	10.3	10.2	10.5	10.6	10.4	10.2	10.1	10.0	10.1	10.1
Investment	10.7	9.0	8.2	8.1	8.1	8.3	7.9	8.0	8.1	8.1
Export <sup>6</sup>	-9.7	-4.4	-6.7	-5.2	-6.4	0.2	-2.0	0.3	1.0	-0.1
Import	-13.3	-6.7	-4.7	2.1	-5.4	4.9	-1.1	-0.6	-1.4	0.2
CPI	2.1	2.1	1.7	2.2	2.0	1.6	1.7	2.1	2.0	1.9
PPI	-4.8	-2.9	-0.8	3.3	-1.3	3.5	2.8	2.3	1.3	2.5
GDP Deflator	0.3	0.5	1.0	2.6	1.3	1.8	1.9	2.1	1.9	1.9

Source: IAR SUFE.

There are also eight baseline assumptions concerning internal environment.

(1) Unstable consumer confidence and lackluster consumption demand in the face of gradually upgrading consumption structure through the end of 2017;

(2) Continued shrinkage in foreign trade and deteriorating terms of trade due to import price hikes;

(3) Growth rates of 5%, 17%, and 3% for investment in manufacturing, infrastructure, and real estate, respectively, in 2017;

(4) Heightened systemic risks in the banking system with commercial banks' NPL ratio reaching 1.76% by the end of 2017;

<sup>5</sup> 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. The projections for 2017 exhibited here are based only on information available by the end of 2016.

<sup>6</sup> The import and export statistics here are all measured in USD and are comparable to those reported by the customs.

(5) A RMB 17.2 trillion cap on total outstanding local government debt;

(6) Frictional labor market with an unemployment rate of 10.9%;<sup>7</sup>

(7) Monetary policy, subject to substantial uncertainties, is most likely to remain accommodative in year 2017, but the room for monetary easing is expected to be small. Hence, we do not expect reductions in the benchmark interest rate, but we expect one 25 base point reduction in the required reserve ratio (RRR);

(8) Fiscal policy is expected to remain stimulative, with the budget of fiscal expenditure growing at the rate of 8% in 2017.

The take-home message from the baseline forecast, as can be seen from the first two rows of Table 1, is that economic slowdown will continue in the near to medium term, with annual real GDP growth rate declining to 6.5% (6.13 using more reliable instead of official data) in 2017.

In light of the uncertainty on the economic outlook, we have considered alternative scenarios to explore the implications for the outlook of alternative forecast assumptions. Specifically, we have studied eight alternative scenarios to accommodate for the various internal and external uncertainties aforementioned. Dividing them into four groups, with each highlighting a particular risk factor, we report below the major assumptions and results for each of the alternative scenarios.<sup>8</sup>

The first group includes two scenarios with relatively optimistic outlooks due to better-than-expected performance in investment (and export), which are labeled as Conservatively Optimistic Scenario and Optimistic Scenario, respectively. In the Conservatively Optimistic Scenario, the growth rate of real estate investment is assumed to increase by 3 percentage points, which leads to 0.9 percentage points increase in the growth rate of total investment. Annual real GDP growth rate in this scenario is 6.7% (6.35% using more reliable instead of official data) in 2017. In Optimistic Scenario, the growth rate of real estate investment is assumed to increase by 4 percentage points, which leads to 1.3 percentage points increase in the growth rate of total investment. Meanwhile, a

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<sup>7</sup> It is the average urban unemployment rate in 2002–2009. Compared with the registration-based official unemployment rate, the data we use here are more consistent with international definitions. We do not provide detailed discussion in this report due to space constraint.

<sup>8</sup> For brevity, we only report the assumptions that differ from those for the baseline scenario. The other assumptions are the same in the baseline scenario if not elsewhere stated.

more resilient global recovery is assumed to increase China's exports by 1.5%. Annual real GDP growth rate in this scenario is 6.9% (6.58% using more reliable instead of official data) in 2017.

The second group includes two scenarios with relatively pessimistic outlooks due to exacerbated trade frictions, which are labeled as Conservatively Pessimistic Scenario 1 and Pessimistic Scenario 1, respectively. In Conservatively Pessimistic Scenario 1, a trade war between the US and China is assumed to erode China's exports by 1%, resulting in a reduced annual real GDP growth rate of 6.4% (6.05% using more reliable instead of official data) in 2017. In Pessimistic Scenario 1, a severer trade war between the US and China is considered which erodes China's exports by 1.5%, resulting in a reduced annual real GDP growth rate of 6.34% (5.99% using more reliable instead of official data) in 2017.

The third group includes two scenarios with relatively pessimistic outlooks due to increased unemployment rate, which are labeled as Conservatively Pessimistic Scenario 2 and Pessimistic Scenario 2, respectively. In Conservatively Pessimistic Scenario 2, rapid increase in real wage and limited growth of firms' profits are assumed to push up the unemployment rate by 0.22 percentage points, resulting in a reduced annual real GDP growth rate of 6.1% (5.78% using more reliable instead of official data) in 2017. In Pessimistic Scenario 2, the adverse conditions are assumed to be even worse and push up the unemployment rate by 0.5 percentage points, resulting in a reduced annual real GDP growth rate of 5.5% (4.94% using more reliable instead of official data) in 2017.

The fourth group includes two scenarios with relatively pessimistic outlooks due to the burst of real estate bubbles, which are labeled as Conservatively Pessimistic Scenario 3 and Pessimistic Scenario 3, respectively. In Conservatively Pessimistic Scenario 3, a 20% drop in housing price is assumed, which drives up NPL ratio by 1.8 percentage points, resulting in a reduced annual real GDP growth rate of 5.83% (5.36% using more reliable instead of official data) in 2017. In Pessimistic Scenario 3, an even worse 30% drop in housing price is considered and it drives up NPL ratio by 3.4 percentage points, resulting in a reduced annual real GDP growth rate of 5.26% (4.72% using more reliable instead of official data) in 2017.

In addition to providing the baseline and alternative forecasts, and given that the Chinese government seems to have in mind certain growth target for year 2017, it is also fitting that some explorations are undertaken to configure a menu of monetary and fiscal policy options that may help achieve the target growth rate. Consider a target growth rate of 6.5%, or 6.13% in terms of adjusted data, for year 2017. We do not discuss the baseline scenario and the two scenarios with relatively optimistic outlooks, because in those scenarios the target is already met or even exceeded without additional policy stimulus. On the other hand, the situations in Pessimistic Scenarios 1, 2 and 3 are so severe that immediate structural reforms targeting the engrained fundamental and institutional issues become much more urgent than the stabilizing tools with only short-term targets in mind. Therefore, we restrict our discussion on Conservatively Pessimistic Scenarios 1, 2 and 3. Table 2 summarizes the combinations of monetary and fiscal policy options that could help to reach the aforementioned growth target in 2017 for these scenarios, with the baseline scenario displayed as a reference.

**Table 2** Alternative Forecasts, Counterfactual and Policy Simulations (for year 2017)

	Baseline	Conservatively Pessimistic 1	Conservatively Pessimistic 2	Conservatively Pessimistic 3
Yearly growth rate	6.5%	6.4%	6.1%	5.83%
Yearly growth rate (adjusted)	6.13%	6.05%	5.78%	5.36%
Target growth rate	6.5%	6.5%	6.5%	6.5%
Target growth rate (adjusted)	6.13%	6.13%	6.13%	6.13%
Monetary policy easing	-	-	25 BP reduction in RRR	50 BP reduction in RRR
Fiscal expenditure (trillion yuan)	19.52	19.74	20.57	21.68
Fiscal expenditure growth rate	8%	9.13%	13.33%	19.1%
Deficit ratio	3%	3.26%	4.31%	5.75%

Source: IAR, SUFE.

(1) Under Conservatively Pessimistic Scenario 1: No further monetary easing, but fiscal expenditure of RMB 19.74 trillion, a 9.13% increase from the 2016 budget.



(2) Under Conservatively Pessimistic Scenario 2: A 25 basis point reduction in the required reserve ratio, and fiscal expenditure of RMB 20.57 trillion, a 13.33% increase from the 2016 budget.

(3) Under Conservatively Pessimistic Scenario 3: A 50 basis point reduction in the required reserve ratio and fiscal expenditure of RMB 19.74 trillion, a 9.13% increase from the 2016 budget.

We emphasize here that our counterfactual analyses and policy simulations should not be viewed as suggesting or recommending certain monetary and fiscal stimuluses for the government to meet its target growth. Rather, we urge that this kind of stimulus packages should be used with caution in light of their side effects, especially from a long-run perspective.

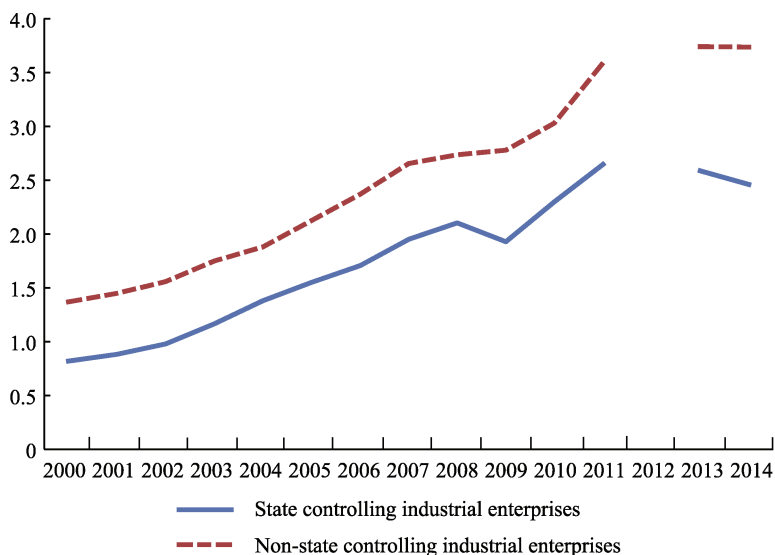
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### **3 Deciphering China's Economic Slowdown from Longer Term Perspectives**

As indicated at the beginning of this article, besides the cyclical components discussed above, secular factors are also responsible for China's recent economic slowdown. With continued deceleration of population growth and steady rise in dependence ratio, China's total employment is expected to reach its peak in 2018 followed by a quick decline, turning the once favorable demographic condition into a disadvantage for economic growth. On the other hand, the law of diminishing returns has already set in due to the rapid accumulation of physical capital. Moreover, the diminishing surplus labor from agriculture and the restructuring Chinese economy from one driven by export and investment towards one led by consumption and services also exert continued downward pressures on China's long-run economic growth.

All the secular factors discussed above indicate that China's potential economic growth rate has declined. However, we do not find that they are the key culprits behind the abrupt deceleration of economic growth in the recent years. Rather, we find that far more responsible roles are played by the numerous distortions embedded in China's economic structure. Examples include persistent distortions between agricultural sector and non-agricultural sector, and between non-state sector and state sector, which occupies a large share in industry and has been persistently less efficient than the non-state sector in terms of TFP since 2000 (see Figure 9). We obtain these results using a two-sector general equilibrium growth model that we have developed for China's economy. Our

results suggest that removing the aforementioned distortions could have led to an increase of over 2 percentage points in annual real GDP growth rates from their actual numbers in the recent years. Looking forward, if the distortions could be fully removed within a short period of time, say, by year 2020, real GDP growth could achieve an average annual rate of over 7% in 2016–2020. On the other hand, if reforms are postponed so the distortions were to remain at their levels in 2015, economic growth could suffer from exacerbated decline in the future.



**Figure 9** TFP of Industrial Enterprises above Threshold by Ownership<sup>9</sup>

Source: National Bureau of Statistics, IAR, SUFE.

These results highlight the fundamental importance of reforms in institutions and governance for the inclusive growth and rejuvenation of China's economy. Although accommodative monetary and fiscal policies could help to stimulate the sluggish economy, they are mainly short-term oriented and hence the impetus they generate is likely to be transient. Even worse, by pursuing short-term targets, the stimulus policies are bound to bring more risks for future development, particularly in the absence of a well-functioning mechanism in resource allocation. Therefore, the reforms that aim to rebalance China's distorted economic structure require at least as much attention as the short-run

<sup>9</sup> Due to data limitation, TFP estimates for 2012 are not provided.

stabilization policies. Indeed, behind China's distorted economic structure is the unbalanced institutional structure, which favors the government and the state sector over the market and the private sector. Moreover, the problematic governance structure often creates conflicts of interests between the central government and its subordinates, which result in distorted policy implementations at the local level that deviate from the spirit of central government resolutions. Hence, fundamental reforms in the governance structure, as well as those in the institutional framework, should be carefully studied and unswervingly carried out so as to shape an economic structure where market plays the decisive role in resource allocation.

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#### **4 Reform and Governance: Implementation Matters**

A retrospect into China's economic reform since 1978 reveals that the successful path of economic liberalization is led by the progress of deregulation and decentralization, in which the central planning system has been gradually replaced by the incentive-based mechanism, leading to the rise of the private sector. The statement of "allowing the market to play a decisive role in allocating resources and improving the role of the government" from the Communiqué of the Third Plenary Session of the 18th CCCPC has signaled the resolution of China's central government to deepen the market-oriented economic reforms. However, with ubiquitously observed underperformance or even counteraction, these reforms have not yet been effectively implemented at the local level, which has reduced the confidence of the private sector. Hence, implementation represents a key issue in deepening the institutional reform.

A well-functioning national governance system of government, market and society is necessary for effective implementation of the reform. Specifically, the government should restrict itself as a market regulator and a provider of public goods and services, and should leave the market to play the decisive role in resource allocation and economic activities. It should be particularly emphasized that even when the government has to participate in some economic activities, direct intervention should still be avoided whenever possible. Instead, the way how government is involved should go align with the well-designed institutional arrangements and rules, which are expected to properly define and clarify the boundaries between the government and the market, and between the government and the society.

Feasibility is another major concern for reform implementation. From the perspective of institution design, individual rationality and incentive compatibility are the two crucial constraints in designing a feasible reform plan. The satisfaction of individual rationality ensures that all related players are willing to participate, whereby the satisfaction of incentive compatibility provides incentives for the participants to exert effort in the right direction. The negligence of these considerations naturally leads to deviation of the outcome from the initiative, which partly explains why China's recent policy reforms, such as those in the stock market and real estate market, have usually produced undesirable results.

“Putting the right people in the right place” is also important for successful reform implementation. To achieve this, a comprehensive governance framework involving the rule of law, examination and supervision is needed to discover and nurture talented reformers. Open-minded and capable people who have the courage to break routines should be placed in important positions, where they themselves can become individual engines of reform. Meanwhile, laws and regulations, examinations and democratic supervisions must be emphasized in the incentive system for government personnel, which form a wholesome atmosphere for the effective implementation of reform.

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## 5 Concluding Remarks

Presently, China has entered into a crucial stage of economic development characterized by continued economic restructuring and a shift from export- and investment-driven models towards consumption- and services-led growth. The recent economic slowdown is both cyclical and secular, and the increased internal and external uncertainties exert additional downward pressures on China's economic growth. In the midst of this uncertain world, rule of law based and market-oriented structural reforms with well-designed strategies that dialectically balance supply-side and demand-side factors and properly weigh short-run stabilization against long-run development, which are indispensable for the inclusive growth and rejuvenation of the China's macroeconomy, should be set to take center stage in China's transition towards a modern free market economy and regulatory state.

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