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A New Macroeconomic Policy Framework for Prudence and Higher-Quality Growth in China

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Abstract

China is facing a slowdown in economic growth potential due to at least three unavoidable structural issues: demographics, environmental costs, and changing consumer preferences. Ongoing technological innovations and reforms can partially cushion the deceleration, but a further slowdown in growth is inevitable in the coming decade. This trend, together with the financial risks caused by a high macroeconomic leverage ratio, calls for a new macroeconomic policy framework. Key to sustainable, high-quality, and environment-friendly growth in China is adoption of a macroeconomic policy framework that is less growth-centric and focuses more on macroeconomic and financial stability.

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清华大学国家金融研究院

适应审慎的、高质量增长的宏观政策新框架

金融与发展研究中心

马骏

【摘要】中国的经济增长潜力至少将受到三个结构性因素的制约：劳动年龄人口下降、环境成本以及消费者偏好的改变。尽管技术进步和体制改革可以减缓增长潜力下降的速度，但未来十年经济增速的放缓是难以避免的。鉴于经济增长潜力的下降和宏观杠杆率高企造成的金融风险累积，中国需要一个新的宏观政策框架来实现可持续、高质量和环境友好的经济增长。这个新框架应当摒弃 GDP 为核心的政策目标而更关注宏观金融稳定。

China's economic growth potential will slow in the coming decade, for structural reasons that cannot easily be reversed. Technological innovation and reforms can cushion the deceleration, but it calls for a macroeconomic management framework that is more consistent with a slower, quality-driven growth model.

Reining in the build-up of macroeconomic leverage (measured by M2-to-GDP ratio) will be key. There is a consensus that high and growing macroeconomic leverage has been the main cause for rising financial sector risks. According to the Bank for International Settlements, China's nonfinancial credit-to-GDP ratio stood at 256.8 percent in the third quarter of 2017, the highest ratio among the Group of Twenty (G-20) economies. This ratio grew at an annual average pace of 11 percentage points over the past decade, the highest rate among G-20 countries. China's leadership has emphasized that prevention of financial sector risks as its top priority.

The targeting or pursuit of an aggressive GDP growth rate has contributed to the excessive growth of monetary aggregates and therefore the rapid build-up in leverage. During 2009–10, the period after the global financial crisis, for example, the government targeted a GDP growth rate of 8 percent. It achieved 9.4 percent in 2009 and 10.6 percent in 2010. M2 growth accelerated to 27.7 percent in 2009, 11.2 percentage points higher than the annual average M2 growth during 2000–08. During 2011–16, the M2/GDP ratio continued to rise by 6.9 percentage points a year, as the government aimed for GDP growth of around 7 percent.

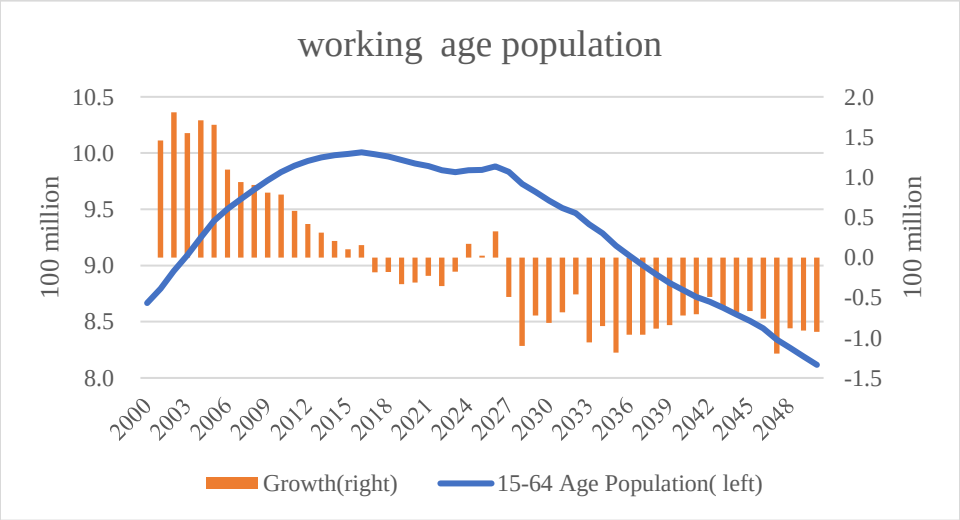
1. Structural Reasons for Growth Deceleration

Three key structural factors will continue to decelerate the Chinese economy in the coming decade or decades: demographics, environmental costs, and a shift in consumer preferences. All of them are difficult or impossible to reverse.

1) Demographics: The Rapid Decline in the Labor Force

Thanks to the one-child policy introduced in the 1970s, China's total fertility rate dropped from 4.8 percent in the early part of that decade to 1.7 percent in 2016 (Ministry of Health and Family Planning 2016). The policy has led to a significant decline in the labor force (the population 15–64) since 2013 (figure 9.1).

Figure 1 Actual and projected labor force participation in China, 2000–50



Sources: National Bureau of Statistics of China and demographic model of Ma, Zhang, and Li (2012).

According to the demographic model of Ma, Zhang, and Li (2012), which accounts for the effect of the two-child policy introduced in 2016, the decline in China's labor force will accelerate from 1.8 million in 2017 to 10 million in 2028, equivalent to 1.1 percent of the labor force that year. Given a baseline labor share of 50 percent in the production function, the acceleration in the decline in the labor force will lead to a drop in economic growth of about 0.5 percentage points in 2028 from the 2017 rate.[2] (This estimate does not account for the fact that the rapid aging of the population may result in additional deceleration in growth via a lower savings rate.)

2) Environmental Costs

China's traditional growth model, led by investment and heavy manufacturing, resulted in serious environmental degradation. This deterioration is beginning to limit potential growth and may threaten social stability.

Most of the environmental costs China is facing arise from air and water pollution, soil contamination, and CO_2 emissions. Future generations will need to bear these costs, the benefits of which were reaped by people who enjoyed very high income and wealth growth in the past several decades. Remediation costs in China during 2000–10 accounted for 6.5 percent of GDP for air, 2.1 percent for water, and 1.1 percent for land pollution/degradation, according to estimates by the RAND Corporation. Water pollution and land contamination costs are likely to rise. According to Zhuang Guotai, Deputy Director General of the Ministry of Environment, the remediation costs for

[2] According to the literature, the labor share in the production function in China is about 0.5 (see Cai and Yang 2013, among many others).

land contamination will be far greater than the costs for air and water pollution and could amount to many trillions of renminbi.[3]

These costs will significantly increase the costs of producing goods and services. For example, Carbon prices may rise by a factor of 10–15 in the coming decade, according to the World Bank (2017)[4], reaching $50-100 a ton by 2030.

Higher input costs should lead to lower profitability and thus less production and lower economic growth. Our dynamic CGE model shows that China's annual GDP growth may slow 0.5 percentage points during the energy transition from 2017–2030 assuming clean energy is 30 percent more expansive than dirty energy[5]. Rising water and food costs may have a similar impact. After accounting for these environment-related costs (essentially a debt incurred by the past generation), it is possible that annual GDP growth could slow by 1 percentage point in the coming decade.

3) Shift in Consumer Preference from Goods to Services

China's services output to GDP ratio rose from 43 percent in 2008 to 52 percent in 2017[6] National Bureau of Statistics of China. It will continue to rise in the coming decade, because the penetration rates of goods (housing,

[3] See https://e360.yale.edu/features/the_soil_pollution_crisis_in_china_a_cleanup_presents_daunting_challenge

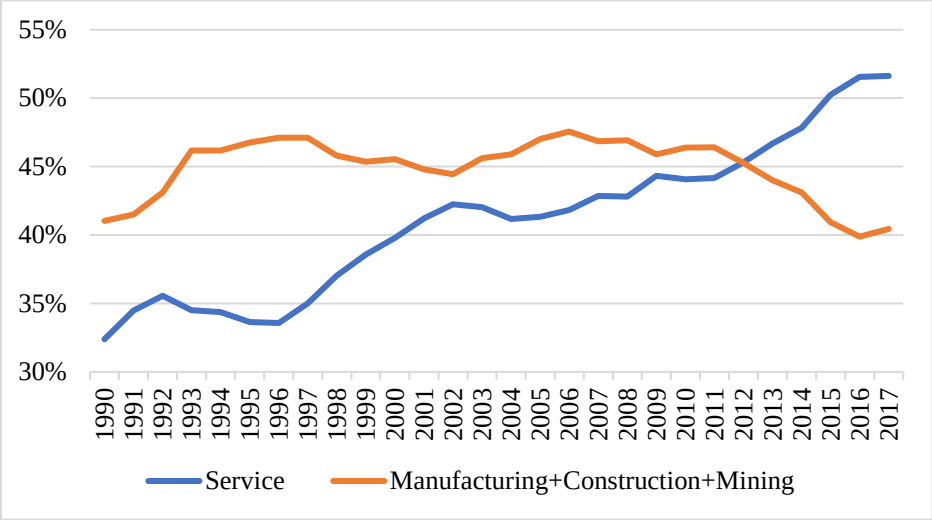
[4] Guidance note on shadow price of carbon in economic analysis, 2017. World bank.

[5] See Shenghao Feng, Jun Yang, and Jun Ma, 2018, "Economic implications of energy transition in China — Analysis based on a dynamic CGE model with elaborated energy module", Working Paper of University of International Business and Economics (UIBE).

[6] National Bureau of Statistics of China

electronics, food, clothing) are already high (close to averages in the Organisation for Economic Co-operation and Development) whereas per capita consumption of services (health care, insurance, entertainment, sports, and so on) remains significantly lower than in developed countries.

Figure 2 Services and manufacturing sectors in China, as percent of GDP, 1990–2017



Source: National Bureau of Statistics of China.

This structural shift in consumer preference from goods to services will likely result in a deceleration of productivity growth. Average annual labor productivity growth in 2007–16 was about 9.0 percent in manufacturing and 5.8 percent in services.[7] Given China's current economic structure (manufacturing accounts for 40 percent of the economy and services for 52 percent), these figures imply aggregate (nonfarm) labor productivity growth of 7.2 percent. Based on the current trend, one can expect a 10 percentage-point rise in the share of the services sector over the coming decade (and a

[7] "Manufacturing" is used as shorthand for "manufacturing, mining and construction."

decline in the share of the manufacturing sector). This structural change implies aggregate (nonfarm) labor productivity growth of roughly 6.9 percent in 10 years. All else held constant, a decline of 0.3 percentage points (from 7.2 percent to 6.9 percent) in annual labor productivity growth reduces annual economic growth by roughly 0.3 percentage points in a decade.

4) Inevitability of a Growth Slowdown

The structural headwinds from these structural changes are difficult to reverse. In addition, China's economic growth is facing other challenges, including very high macroeconomic leverage, which means the country is no longer positioned to borrow at the pace it had. Urbanization is also slowing, which means that growth driven by infrastructure and property investment may lose steam.

Fortunately, the growth slowdown may not necessarily translate into severe unemployment, as the number of people seeking jobs will shrink as well. According to the demographic model of Ma, Hong, and Yang (2017), the labor force will decline by 11 million people, obviating the need to create net new jobs by 2028.[8]

2. Measures Already Taken to Offset Deceleration Pressures

The Chinese government has launched a number of initiatives to offset some of these factors and boost growth potential. The most notable effort is the promotion of technological innovation. Central and local governments promoted technological innovation and the development of new business

[8] Rural labor migration is projected at about 8 million people in 2028, almost the same as the net reduction in the urban labor force in the year.

models, through measures such as tax deductions and exemptions; increased government expenditure on research and development; the establishment of more than 3,000 high-tech start-up incubators; encouragement of the transformation of scientific products for commercial use; and the creation of one-stop-services for patent examination, verification, and protection. Many Chinese high-tech companies, especially Internet and e-commerce businesses, were listed on stock exchanges in the past few years. In power, engineering, mining, high-speed rail, and construction areas, China has become a technology exporter.

Acceleration of technology development may not be enough to offset the economic deceleration caused by structural factors, however. According to Gordon (2016), total factor productivity growth in the United States averaged less than 1 percent during 1980–2010. China has many patents, but their average quality is low, and per capita patent holding is only 10 percent that of Korea, which has not escaped economic deceleration in the past two decades. In light of these international experiences, it seems likely that technology may only partially offset the downward pressure on economic growth in China.

3. Features of the New Macroeconomic Policy Framework

Given slowing growth and the need to curb macroeconomic leverage, China's macroeconomic management framework needs to shift toward one that promotes slower but higher-quality growth. Such a new framework should (a) replace GDP with employment as the most important macroeconomic policy objective; (b) enhance the independence of monetary policy, in order to avoid dominance by dovish tones in monetary policy making; and (c) make sure that the planning of fiscal and quasi-fiscal expenditures—such as unfunded

mandates for local governments on education, health, environment, poverty alleviation, and so on, as well as the launching or support of economic/high-tech development zones—is consistent with macroeconomic and financial stability objectives, in order to avoid further expansion of local government debt.

China's macroeconomic management system centers on achieving growth targets. It has the following key features:

- The central government sets 1-, 5-, and 10-year growth targets. Provincial and lower-level governments set their targets for growth, which are typically higher than the national target (if the central government targets 6.5 percent, the provincial government targets 7.5 percent and the city- or county-level government possibly 8.5 percent). Promotion of local government officials (such as party chiefs and mayors) depends largely on achievement of GDP growth targets.
- Various ministries and bureaus (including those in charge of industrial development, infrastructure, and social services) set targets for sectoral growth. Once aggregated, they are typically more ambitious than the national growth target. Based on these sectoral targets, the central government issues mandates for local governments (such as achieving targets for poverty reduction, environmental protection, education, health care, elder care), many of which are not funded or only partially funded by national budgets. Most of these mandates have been funded by local government financial vehicles or public–private partnership projects that borrowed from banks or the bond market. They are a key reason why local government debt surged over the past decade.

- China sought to spur regional development by launching many development zones. The central and provincial governments launched about 5,000 such zones (economic development, high-tech, free trade, and so on). City, county, and township governments also established numerous development zones. No official statistics exist on their number, but there are likely many thousands, if not tens of thousands. Infrastructure investment demand in the 5,000 development zones at or above provincial levels could amount to nearly RMB50 trillion, or 60 percent of China's GDP in 2017.
- Historically, the State Council set monetary growth targets, based on negotiations among key ministries. M2 grew at a pace that was about 3 percentage points higher than nominal GDP over the past two decades. The key reason for the excessively high M2 growth was that most parties influencing policy making were beneficiaries of rapid monetary expansion and none of them cared about its eventual macroeconomic consequences, such as inflation and financial risks. The central bank, where professionals are most concerned about macroeconomic stability, has limited influence in this process.

These features suggest that the current macroeconomic management framework may be prone to overheating, as a result of untenable promises on deliverables (as reflected in the large unfunded mandates for local governments), excessive incentives for achieving higher GDP growth through overborrowing, and limited restraints on monetary expansion. When the economy enjoyed strong underlying growth potential (of about 10.5 percent in the 2000s) and financial leverage was still modest, such features did not pose a major threat to macroeconomic and financial stability. In the "new

normal" phase, which may see growth slow and room for leverage shrink, the old macroeconomic management model becomes unsustainable.

This growth-centered macroeconomic management model needs to be replaced with a quality-centered one that focuses on macroeconomic prudence and financial stability. The decline in growth potential and labor force makes this transition feasible, as there is no more need to maintain strong growth for job creation. The need to contain macroeconomic leverage makes the transition imperative. The new approach needs to focus on several areas.

1) Abandoning the GDP Growth Target

China has long used GDP growth targets to boost investment and economic growth. In the 12th Five-Year Plan, the government set the goal of doubling the country's real GDP and household income by 2020 from 2010 levels.

The drawbacks of this kind of target-setting have become increasingly evident. The main problem is that local governments top up the national growth target by setting higher targets and then resort to heavy borrowing to achieve them, pushing up local government debt and hence the leverage ratio of the overall economy.

In addition to boosting local government debt and macroeconomic leverage, the overemphasis on GDP growth performance caused overcapacity, environmental degradation, and statistical fraud. As many local governments lack sufficient revenues to fund their infrastructure investments, they resorted to multiple sources of debt financing, including loans, bonds, and shadow banking products. When they failed to meet their GDP targets, some local

governments manipulated their statistics, as evidenced by the fraud reported in Liaoning, Tianjin, and Inner Mongolia.

China should scrap the national GDP growth target and replace it with an unemployment rate target as the most important macroeconomic policy objective. Doing so would reduce the political pressure on local governments to borrow. GDP growth forecasts (instead of targets) should still be used as a guide for budgetary activities. They could be issued by the central bank, the National Development and Reform Commission, or the Ministry of Finance.

2) Enhancing Monetary Policy Independence

The State Council, rather than the central bank, makes all key monetary policy decisions in China, including adjustments to the benchmark interest rates and reserve requirement ratios. As the State Council makes decisions largely by consensus, the system often reflects the collective opinions of key ministries in charge of economic development and policymaking, as well as the views of local governments, which are less concerned than national policy makers about the macroeconomic spillover of such policies. The views of the central bank—the agency mandated to maintain macroeconomic and financial stability—carry limited weight. This system has a natural bias toward excessive monetary expansion.

The central bank should be given more independence in monetary policy making, transitioning away from M2 growth targeting toward interest rate targeting. To do so, when the authorities announce the official policy rate (to replace the benchmark lending and deposit rates) as the intermediate target for monetary policy, the central bank should be given key decision-making power.

This arrangement would better ensure macroeconomic and financial stability as a top priority of monetary and macroprudential policies.

3) Creating a Macroeconomic Stability Screening Mechanism to Cut Unrealistic Public Policy Mandates

To avoid further expansion of local government debt, especially implicit debt, it is important to make sure that the planning of quasi-fiscal expenditures (such as unfunded mandates for local governments on education, health, environment, poverty reduction, and so on) is consistent with macroeconomic and financial stability objectives. A "macroeconomic stability screening" mechanism should be established for all major macroeconomic policies by quantifying their fiscal and monetary implications. For example, many targets set for poverty reduction, pollution reduction, and improvements in health care, education, and infrastructure require significant fiscal resources. If not included in the official fiscal budget, these mandates most likely result in local government quasi-fiscal debt. If they do not pass the macroeconomic stability screening, which sets a limit on total government borrowing (including targets of budgetary fiscal deficit and quasi-fiscal deficit), such mandates should not be included in the government's work plan.

4) Abolishing Some Development Zones

Some development zones have contributed to rapid regional economic growth and technological innovation. But many are heavily indebted, because they borrow excessively for expenditures on infrastructure investment without credible plans for repayment.

The current policy of "one county, one zone" is inappropriate, because many counties lack the natural resources, workers, talent, and locational comparative advantages to attract private investment and land purchase in large-scale infrastructure development. As many as two-thirds of China's 5,000 development zones (at and above the provincial level) lack the growth potential initially foreseen or claimed. Continuing to advance large-scale development zones broadly would exacerbate the local government debt problem and increase macroeconomic leverage. The central government should therefore consider abolishing many of these development zones and refraining from launching new ones.

5) Enhancing the Transparency of the Quasi-Fiscal Debt of Local Governments

In 2013 the Third Plenary Session of the 18th Chinese Communist Party Congress decided that central and local governments would henceforth publish their government balance sheets, in order to enhance the transparency and responsibility of local government operations. Progress has been slow, with many local governments compiling but not publishing their balance sheets.

The rapid increase in local government quasi-fiscal debt in the past five years has underscored the importance and urgency of implementing this reform. A mandatory requirement for disclosure of local government balance sheets, including local financing vehicle debts, which represent contingent or implicit liabilities of the local governments, is critical to deter irresponsible and excessive borrowing by local governments. Publishing information on quasi-fiscal borrowing gives the general public, local residents, members of the local

people's congress, the media, banks, the debt market, and third-party service providers such as rating companies important information with which to assess local government debt risks. Public opinion and pressure from all these parties for local governments to stay prudent could be very powerful.

The authorities could take the following steps to implement the decision:

- The Ministry of Finance should create a standardized template for local government balance sheets, with clear definitions of contingent and implicit liabilities of local governments. For example, debts incurred by companies that are majority owned by local governments and for developing infrastructure projects whose cash flows are insufficient to cover debt repayments should be treated as implicit or contingent government liabilities, regardless of whether the local governments have issued an official guarantee.[9]
- The Ministry of Finance could select a few provinces and cities as pilot programs for launching this reform.
- Once sufficient experience is gained, this practice should be quickly replicated in the rest of the country.

4. Conclusion

Unlike countries that face secular stagnation, China is facing a slowdown in economic growth driven by three unavoidable structural issues: demographics, environmental costs, and changing consumer preferences. Ongoing

[9] The author was an advisor to the "balance sheeting working group" of a provincial-local government a few years ago and was involved in many technical discussions on definitions, scope, and valuations of local government balance sheet items. His experience suggests that these issues are not as problematic as many people perceive.

technological innovations and reforms can partially cushion the deceleration, but a further slowdown in growth is inevitable over the medium term.

This trend, together with the growing financial risks caused by a high macroeconomic leverage ratio, calls for a new macroeconomic management framework. Key to sustainable, high-quality, and environment-friendly growth in China is adoption of a framework that is less growth-centric and focuses more on macroeconomic and financial stability. To put such a new framework in place, policy makers should consider the following actions:

- Make employment, rather than GDP, the most important macroeconomic policy objective.
- Enhance the independence of monetary policy, in order to avoid the dominance of dovish tones in monetary policy making.
- Make sure the planning of fiscal and quasi-fiscal expenditures is consistent with macroeconomic and financial stability objectives, in order to avoid further expansion of local government debt, especially implicit debt.
- Abolish unqualified development zones.
- Enhance the transparency of quasi-fiscal borrowing by local governments.

Even at somewhat lower rates, China's growth will still be among the highest in the world in the coming decade—and the declining size of its labor force will allow it to tolerate a more moderate GDP growth rate without causing serious unemployment. Hence there is no convincing reason to be obsessed about reaching an annual GDP growth target. By reducing the probability of financial crises and large disruptions to growth, the new macroeconomic

management framework described in this chapter should help China better achieve its sustainable development objectives in the medium and long terms.

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