

Working Paper Series

Symposium on New Directions in Money, Finance & Public Policy

Open Society University Network Economic Democracy Initiative

China's Economic Challenges: A Perspective Based on Fisher, Keynes, Minsky, and Modern Money Theory

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WP 15 | February 2024

Abstract: The Chinese economy has slowed down following its post-pandemic reopening in early 2023: industrial production and retail sales have been soft; international trade activity has been tepid; though the authorities have since stopped publishing this statistic, the youth unemployment rate was surging; and, in spite of various measures to stabilize the real estate sector, the real estate correction is ongoing, with Tier 2 and Tier 3 cities hit hardest. Meanwhile inflation is ultralow, reflecting weakness in effective demand; the producer price index has been soft, raising concerns about deflationary trends and firms' profit margins; and households', nonfinancial corporations', and local governments' debt-to-GDP ratios have increased in the past decade, with the rise in the private sector's debt ratio implying that deflation could pose a risk to financial stability. If a deflationary mindset becomes widespread, it could be quite harmful to the economy, therefore the Chinese authorities have eased monetary policy. However, China may require a well-directed fiscal stimulus and well-designed large-scale employment programs to stabilize its economy. It will also need to advance its scientific and technological capabilities and innovation systems to enhance competitiveness and raise productivity. Insights drawn from Irving Fisher, John Maynard Keynes, Hyman Minsky, and modern money theory can be useful in analyzing China's current challenges and transformational goals. It can also facilitate the formulation and implementation of an economic strategy that can address its current challenges and transformational goals.

Key words: China; Development; Current Economic Conditions; Transformational Growth; Irving Fisher; John Maynard Keynes; Hyman Minsky; Modern Money Theory

I. Introduction¹²³

China's economy has slowed down since its reopening following the lockdowns due to the COVID-19 pandemic. More recently, economic activity in China appears to have regained traction, though effective demand is tepid. The pace of growth has proven to be somewhat disappointing since the economy's reopening. The urban youth unemployment rate had surged to above 21 percent as of June 2023 (when statistics were last reported). Meanwhile, retail sales, which had slowed in recent months, appear to be gradually picking up. The growth in industrial production is also recovering slowly and auto sales and travel have improved. However, inflationary pressures are subdued, reflecting a weakness in effective demand. Headline consumer price index (CPI) inflation is weak, while core inflation is also tame. The producer price index (PPI) has been declining for the past twelve months. Nominal exports had risen in the second quarter of 2023, but declined in recent months. The real estate market is undergoing correction, while the authorities are working hard to stabilize it to prevent contagion.

Despite the initial weakness after its reopening, the Chinese economy could recover quickly and thrive with a well-designed fiscal stimulus program. Growth is likely to be near the authorities' targeted pace of 5 percent and China will remain an important driver of the global economy. In the near term, a slowdown of the Chinese economy due to a continued real estate sector correction remains downside risk. In the long-term, the key challenges ahead for China include: (1) managing relations with the United States and other Western countries, and (2) transforming China into a moderately prosperous country.

The current conditions and China's transformation challenges raise some important questions that are worth pondering. Will the Chinese authorities launch a fiscal stimulus? Will the People's Bank of China (PBOC), the country's central bank, ease monetary policy? Why has the youth unemployment rate surged and what should be done to reduce it? What has been done so far and should be done in the future to stabilize the real estate sector? What would deflation's effect on the Chinese economy be? What type of reforms will occur in the near future? What are China's long-term transformational challenges?

This paper will attempt to address these questions in light of current data (as of early November 2023), though definitive answers to these questions may remain elusive. It is argued here that the insights of Irving Fisher, John Maynard Keynes, Hyman Minsky, and modern money theory (MMT) can be perspicacious in formulating and implementing the appropriate economic strategy for stabilization and transformational growth.

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² **Disclaimer**: Views expressed are merely those of the author. The standard disclaimers hold.

³ Acknowledgements: The author thanks participants at various seminars for their valuable comments and suggestions.

The paper proceeds as follows. Section II examines some key economic developments in China. Section III highlights the insights of Irving Fisher (1932, 1933), John Maynard Keynes (1930, [1936] 2007), Hyman Minsky ([1986] 2008), and modern money theory (Wray [1998] 2003, 2015). Section IV discusses the policy implications based on the insights of the above-mentioned economists and economic theory. Second V concludes with a summary.

II. Recent Economic Developments in China and its Transformational Challenges

Figure 1 shows the evolution of real GDP growth in China. In the third quarter of 2023, the Chinese economy grew at a pace of about 6 percent year-over-year and 1.4 percent quarter-over-quarter (not annualized). With the onset of the COVID-19 pandemic, the Chinese economy had contracted by more than 10 percent quarter-over-quarter in the first quarter of 2020, but economic growth rebounded sharply in the following quarter and the recovery continued at a more restrained pace in the second half of 2020. However, as China followed fairly strict lockdowns, economic growth in 2021 and 2022 averaged less than 1 percent quarter-over-quarter. Since the lockdown came to an end in early 2023, China's economic growth has averaged 1.4 percent quarter-over-quarter in the first three quarters of the year. The pace of growth immediately following the reopening of the Chinese economy was disappointing, but the current pace of growth is consistent with the Chinese authorities' target growth rate of 5 percent for 2023.

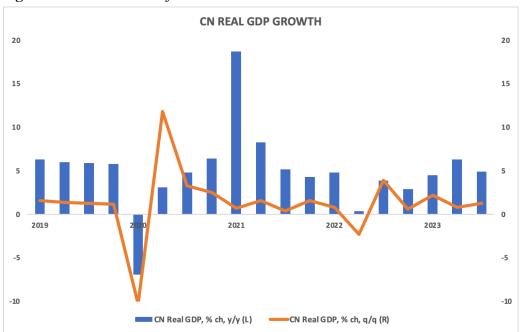


Figure 1. The Evolution of Real GDP Growth in China

Figure 2 traces the growth of industrial production. Prior to the pandemic, industrial production was growing at a pace of 5.8 percent year-over-year. Industrial production fell sharply with the onset of the pandemic at the beginning of 2020, but started recovering beginning in the second quarter of 2020. Even though China had strict lockdowns and restrictions, industrial production continued to grow. As the authorities reopened the economy in early 2023, industrial production continued its growth, but the average as of September 2023 was a bit less than 4 percent year-over-year, lower than its pace prior to the pandemic's onset.

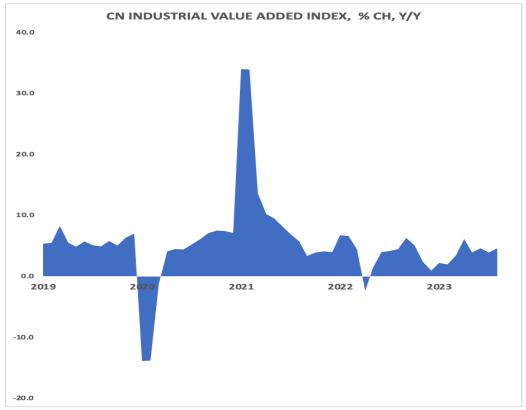
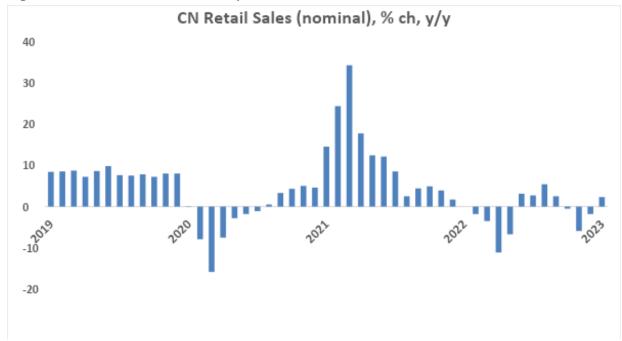


Figure 2. Tamer Industrial Production for the Past Few Months

Nominal retail sales growth had weakened during the pandemic, as displayed in figure 3. Periodic lockdowns during the pandemic deterred consumers' retail spending, as household incomes fell and consumer confidence eroded. Retail sales declined between February 2020 to July 2020, between February 2022 to May 2022, and again between October 2022 and December 2022. However, since the reopening, retail sales have been gradually recovering, though the pace of sales growth is still less than the pace prior to the pandemic. Whereas in 2019 nominal retail sales grew at an average pace of 8.1 percent year-over-year per month, nominal retail sales grew at a pace that averaged 7.4 percent per month year-over-year in 2023.

Figure 3. Retail Sales Have Been Soft



China is the world's largest auto market. Figure 4 shows the evolution of monthly auto sales in China. In 2019, auto sales amounted to 2.1 million per month; they fell sharply in February and March 2020, but quickly recovered. Despite this recovery, auto sales fluctuated from month to month amid the continued lockdowns. However, since the reopening of the Chinese economy in early 2023, sales have picked up and averaged almost 2.5 million per month.

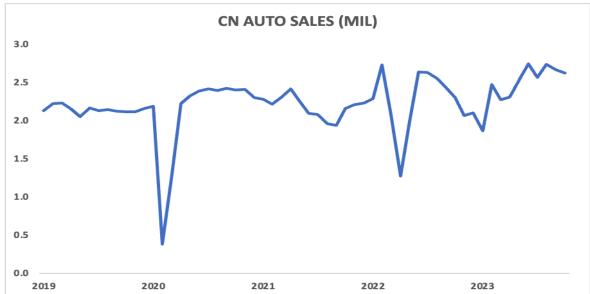


Figure 4. Auto Sales Have Risen Since Reopening

Civilian air travel dropped markedly between 2020 and 2022 during the pandemic but has recovered since the reopening of the economy, as shown in figure 5. Before the pandemic, the number of civilian air passengers averaged almost 55 million per month in 2019. Air travel has again picked up with the reopening of the economy; though it remains below the 2019 average, the number of civilian air passengers traveling in 2023 averaged 51.6 million per month as of September 2023.

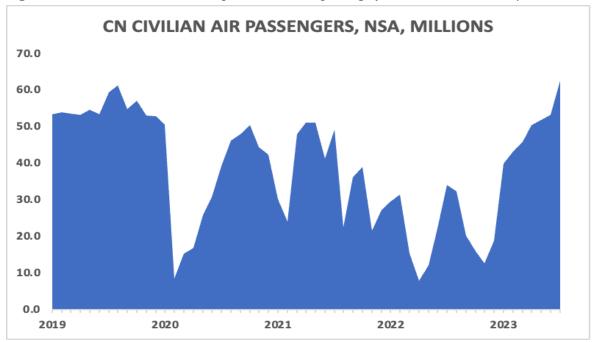


Figure 5. Air Travel Has Picked up Since the Reopening of the Chinese Economy

China plays a major role in international trade, with exports and imports playing vital roles in its own economy. Figure 6 shows the evolution of China's nominal exports and nominal imports. Its exports fell sharply at the onset of the pandemic but recovered quickly as global demand for goods produced in China rose markedly. Its imports fell more moderately at the onset of the pandemic but later gained traction as demand for goods produced overseas picked up in China. Both exports and imports have risen considerably from their level in 2019. However, the pace of both export and import growth since the reopening has been rather disappointing. Nominal exports had risen in the second quarter of 2023 but declined in recent months.



Figure 6. International Trade Has Been Disappointing Since the Reopening

The real estate sector is undergoing correction in China. Residential real estate prices had markedly appreciated for many years: between 2013 and 2021, existing residential real estate prices had appreciated by almost 47 percent, as shown in figure 7. However, since early 2021, residential real estate prices have been declining. There has been considerable variation among different metro areas in both the upward trajectory of residential real estate prices during the boom years and in their downward trajectory since the beginning of the housing correction in early 2021. Figure 8 displays these regional disparities in residential real estate prices. The appreciation was much more pronounced in the Tier 1 metro areas than in Tier 2 and Tier 3 metro areas than in Tier 1 metro areas, reflecting the greater imbalance between supply of and demand for residential real estate in Tier 2 and Tier 3 metro areas.

⁴ Examples of Tier 1 metro areas are Beijing and Shanghai; Tier 2 metro areas are Fuzhou and Nantong; and Tier 3 metro areas are Tangshan and Weihai. See <u>https://en.wikipedia.org/wiki/Chinese_city_tier_system</u> for additional details.

Figure 7. Ongoing Real Estate Correction

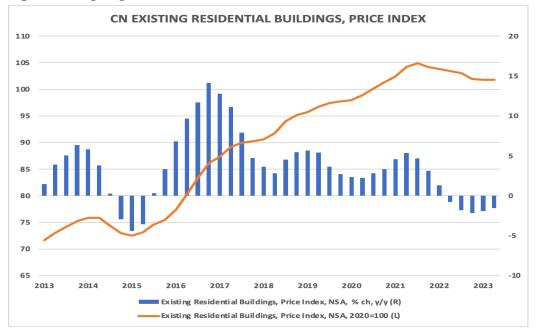


Figure 8. Tier 2 and Tier 3 Cities Have Been Hit Hard

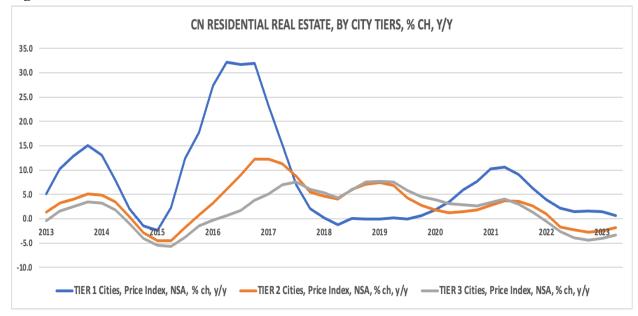


Figure 9 delineates the evolution of CPI and core CPI inflation in China. It shows that core CPI inflation was already low prior to the pandemic and remained below 1 percent year-over-year since mid-2022. It also shows that headline CPI inflation was rising in 2019, peaked in January 2020, then fell steadily during the pandemic, and, by late 2020, it was low. CPI inflation began to rise from 2021 and rose to nearly 2.8 percent year-over-year in September 2022. However, inflation began to decline in the subsequent months and year-over-year headline inflation has

been below 1 percent since early 2023. Low CPI and core CPI inflation indicate the weakness of effective demand in China.

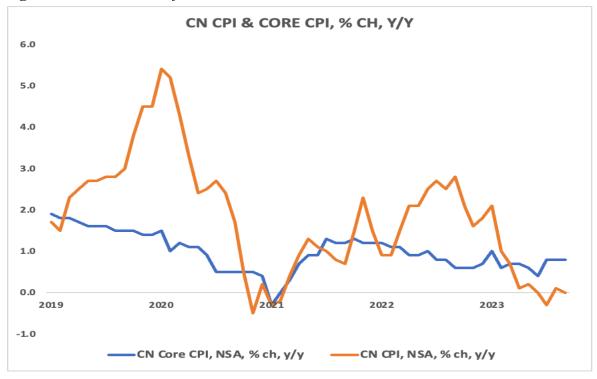


Figure 9. Ultralow CPI Inflation

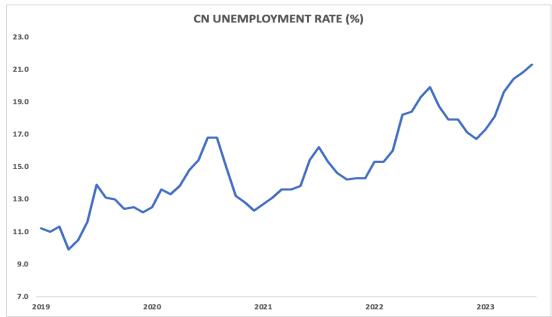
Figure 10 outlines the behavior of the PPI, measured as the percent change year-over-year. PPI had been declining since miid-2019, well before the onset of the pandemic, and the decline continued until the end of 2020. The PPI started rising on a year-over-year basis in 2021, rose quite sharply in the second quarter of 2021, and continued to be high until mid-2022. However, in the fourth quarter of 2022, the PPI started to decline and has been exhibiting a deflationary trend since October 2022. The 12 months of the continuing deflationary trend in China's PPI implies that producers' margins and revenues have been adversely affected and that the Chinese economy is under pressure due to the weakness of effective demand.



Figure 10. PPI Has Been Declining for More than a Year

The urban youth unemployment rate surged from nearly 12 percent in 2019 to over 21 percent as of June 2023, as shown in figure 11. The Chinese authorities have stopped publishing time series data on the urban youth unemployment rate, ostensibly because the data had methodological flaws. The authorities may be correct regarding the limitations of the data. However, they have not yet revised or updated this time series data since June 2023. Urban youth unemployment has risen because of weak effective demand, skill mismatches, and the lack of hiring in several industries, such as technology, private education, financial services, and real estate.

Figure 11. Youth Unemployment Rate Had Surged to Over 2 Percent as of June 2023, but the Authorities Are No Longer Publishing This Series



The ratio of household debt to nominal GDP has risen noticeably in the past decade, as depicted in figure 12. The household debt ratio increased from 36 percent in early 2015 to a bit higher than 63 percent as of the third quarter of 2023. A high household debt ratio implies that debt deflation can impose a major burden on households.

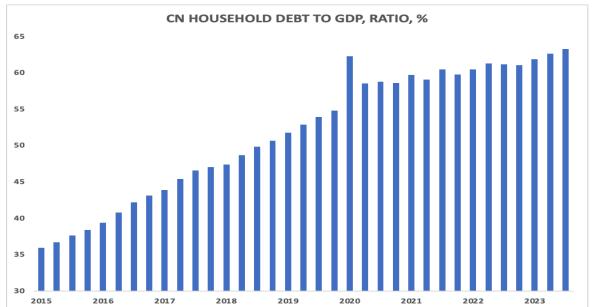


Figure 12. Household Debt Ratio in China Has Risen in the Past Decade

Similarly, nonfinancial corporate debt as a ratio of nominal GDP has also risen markedly during the same period, as displayed in figure 13. The nonfinancial corporate debt ratio rose from nearly 115 percent in early 2015 to nearly 150 percent in mid-2023. The elevated corporate debt ratio implies that debt deflation could be a problem for nonfinancial corporations in China.

China's private-nonfinancial-credit-to-GDP ratio has risen markedly in the past decades, as shown in figure 13, from nearly 110 percent of GDP in 2000 to almost 230 percent of GDP as of early 2023. This ratio began to rise markedly since 2009 and, as of early 2023, China's private-nonfinancial-credit-to-GDP ratio exceeds the same measure for the United States and the eurozone, respectively, by 76 and 70 percentage points. The elevated credit-to-GDP ratio of China's private non-financial sector raises concerns about excessive leverage, particularly since inflationary pressures have been subdued in the recent past.

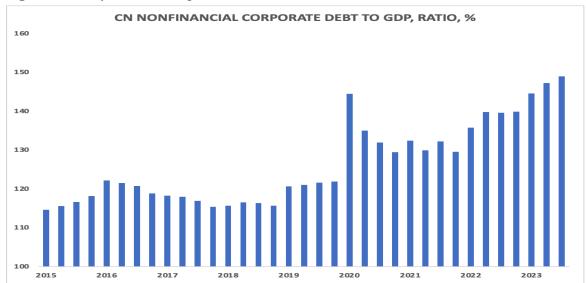


Figure 13. Nonfinancial Corporate Debt Ratio Has Also Risen

It should be emphasized that local government debt has risen in China. There is a lack of transparency concerning local government financing and local government funding vehicles. Local governments have also relied on land sales and real estate transactions as a source of revenue. The ongoing adjustment in the real estate sector is likely to have an adverse effect on local government financing.

The PBOC has responded to the slower pace of economic activity since the reopening by lowering assorted policy rates and eased lending standards. The Chinese authorities have also encouraged state-owned banks and financial institutions to lend to enterprises. However, economic activity can be unresponsive to lower interest rates if effective demand is feeble.

Besides the ongoing real estate correction and the gradual pace of the current recovery, China faces several key transformational challenges. Despite its impressive and laudable growth trajectory, it is still a medium-income country rather than a high-income country. China is a one-party state and, in spite of many tumultuous periods and upheavals, the Communist Party of China (CPC) has ruled the country since 1949. The CPC is aware that raising the standard of living for its people is essential for retaining its monopoly over political power and continued popular support. It will therefore take every measure to prevent an economic slowdown because it would raise doubts among the masses about the CPC's political legitimacy.

Going forward, the Chinese authorities will need to ensure regime stability and legitimacy to achieve continued economic growth at rates high enough to raise per capita incomes and maintain popular support. Moreover, the authorities will need to formulate policies that garner a more equitable distribution of income and wealth than is the case at present. China's population is aging rapidly and has started declining as the fertility rate is below the replacement rate,

therefore the authorities will need to manage the country's demographic transition. Their declared goal is to create a moderately prosperous society. To attain this goal and secure China's status as a major global power, the authorities will need to support technological progress, raise factor productivity gains, and foster innovation. The emergence of Chinese companies as global leaders across various industries is an essential component of China's modernization and economic transformation.

III. The Relevance of Fisher, Keynes, Minsky, and Modern Money Views for China

The economic insights of Irving Fisher, John Maynard Keynes, Hyman Minsky, and modern money theory can be used to analyze the current economic conditions in China and around the world. These insights can also be valuable in formulating and implementing an economic strategy that addresses China's current problems and transformational challenges. Hence, some of the key insights of these economists and modern money theory are summarized below.

a. Insights from Irving Fisher

Irving Fisher (1932, 1933) underscored the perils of the debt deflation. He pointed out that in a deflationary environment, the burden of debt service can become an economy-wide phenomenon that leads to economic contraction and raises the unemployment rate. Fisher (1933: 344) argued that "[d]eflation caused by the debt reacts on the debt. Each dollar of debt still unpaid becomes a bigger dollar, and if the over-indebtedness with which we started was great enough, the liquidation of debts cannot keep up with the fall of prices which it causes. In that case, the liquidation defeats itself." He warned that in a deflationary environment, "[t]he very effort of individuals to lessen their burden of debts increases it, because of the mass effect of the stampede to liquidate in swelling each dollar owned" (Fisher 1933: 344). Hence, he urged that policymakers need to overcome deflation to counter the adverse effect of excess debt and debt burden. He insisted that "[w]hen over-indebtedness is so great as to depress prices faster than liquidation, the mass effort to get out of debt sinks us more deeply into debt," and maintained that policymakers can counter debt deflation through proactive policies noting that "[g]reat depressions are curable and preventable through reflation and stabilization" (Fisher 1933: 350).

b. Insights from John Maynard Keynes

The insights of John Maynard Keynes ([1936] 2007) are quite relevant for China's economic challenges. Keynes's ([1936] 2007: 372) fundamental insight about market economics is that "the outstanding faults of the economic society in which we live are its failure to provide for full

employment and its arbitrary and inequitable distribution of wealth and incomes." Keynes's ([1936] 2007) view was that market economies tend to operate below full employment. He argued that the price mechanism's operation is insufficient to attain full employment, observing that investor behavior is often guided by "animal spirits," which in turn lead to herding, bubbles, crashes, panics, and financial crisis. He also held that monetary policy could well be ineffective in restoring full employment. Mainstream economists have emphasized the loanable funds theory of interest, invoking the fear that a higher government deficit or debt ratio leads to elevated government bond yields and crowds out private sector businesses' fixed investment. In contradistinction, Keynes (1930: 353–64) held that a central bank's policy rate and other monetary policy actions have a decisive influence on the long-term interest rate on government bonds. Recent empirical and theoretical research on interest rate dynamics from a Keynesian vantagepoint, such as Akram (2021, 2022) and others, vindicates Keynes's view on interest rate dynamics in countries with monetary sovereignty, demonstrating that a central bank's policy rate influences long-term interest rate influences long-term government bond yields after controlling for other factors.

Keynes ([1936] 2007) notes that if a central bank lowers the policy rate, it does not guarantee that the economy will get back to full employment and therefore argued that additional public actions are required to ensure full employment, socially necessary investment, and improvements in the standard of living.

c. Insights from Hyman Minsky

Hyman Minsky ([1986] 2008: 194–96) articulated the financial instability hypothesis, arguing that financial instability is a recurring and essential feature of a capitalist economy. He maintained that over time, particularly after some years of stability, investors can shift away from hedge financing to speculative financing, and eventually from speculative financing to Ponzi financing (Minsky 2008: 230–38, 371–79). The shift from hedge financing to speculative and Ponzi financing creates financial fragility for the economy, which can lead to financial crisis and serious economic downturns. To counter the emergence of financial fragility, Minsky ([1986] 2008: 249–82) believed that the financial system needed to be well regulated and evolve in response to financial innovations. Because the financial system has to serve the common good of the citizenry, he emphasized the central bank's vital role in stabilizing the financial system and the central government's role in achieving full employment (Minsky [1986] 2008: 319–70).

d. Insights from Modern Money Theory

According to modern money theory (Wray [1998] 2003, 2015), the central government of a country with monetary sovereignty does not have any operational constraint in servicing sovereign debt issued in its own currencies. Modern money theory shows that collaboration between the Treasury and the central bank is necessary for maintaining policy target rates or target ranges set by the central bank. The fiscal deficit of the central government is an outcome of economic conditions. Modern money theorists advocate for job guarantee programs to ensure full employment, as a job guarantee program has the potential to move an economy very close to full employment by providing jobs to all who are able and willing to work at a given wage set by the government. Because it can stabilize the economic system and has many social benefits, the case for a job guarantee, as articulated by modern money theorists, is aligned with the goals of the United Nations' Universal Declaration of Human Rights (Article 23), which states that "[e]veryone has the right to work, to free choice of employment, to just and favorable conditions of work and to protection against unemployment." Modern money theorists insist that the implementation, design, and details of job guarantee programs are important, should be based on institutional realities, and should be designed in a manner that is appropriate for those it will serve.

Several scholars have examined China's monetary and fiscal institutions from the vantage point of modern money theory. Lommen and Wray (2015) argue that for China, the central government's fiscal stance should be relaxed for countercyclical measures and development objectives, while local governments' and corporations' fiscal position should be tightened. Similarly, He and Jia (2020a) also employ the modern money framework to examine the problems arising from elevated and rising local government debt. They argue that since a country with monetary sovereignty, such as China, always retains the ability to spend and service debt issues in its own currency, the central government, rather than the local government, should be primarily responsible for the fiscal burden. He and Jia (2020b) also explored the evolution of China's monetary policy institutions as pertains to the interbank offered rate and the effects of fiscal activities on monetary policy operations, calling for better coordination between the Treasury and the PBOC.

IV. Policy Implications and Issues

These economic insights have important implications for the management of the business cycle and a country's growth strategy, not just in China and other emerging markets, but also for advanced countries. The authorities in China cannot rely solely on market mechanisms to correct the slowdown in economic activity and rising unemployment rates, particularly among the youth. They will need to undertake fiscal stimulus, especially with respect to programs designed to create employment, improve weak effective demand, and contend with the perils arising from a persistently low inflation or deflationary environment.

Financial institutions should be well regulated. The financial system's architecture and the regulation and supervision of financial institutions must be restructured to insure the preponderance of hedge financial positions and disincentivize speculative and Ponzi finance. Such regulation of financial institutions must evolve in response to innovations that occur in the financial system and broader economy.

It should be noted that China does not have complete monetary sovereignty. The PRC issues its own currency and has the legitimacy, authority, and capability to tax and spend in its own currency. However, it does not maintain a freely floating exchange rate system. Nevertheless, it has a very large pool of international reserves, giving it considerable ability to maintain a de facto peg of its currency. As a result, though incomplete, China is deemed as a country with a high degree of monetary sovereignty. Because of this, the central government should be responsible for the bulk of fiscal stimulus and restrain local governments' debt accumulation. The system for local government finance should be reformulated and some restrictions should be put on the scope of local government funding vehicles.

Additionally, the Chinese authorities will need to undertake policies targeted at maintaining employment and reducing the unemployment rate. The central government should be responsible for financing large-scale employment programs, but their design and implementation should be delegated to local governments and agencies, including non-government organizations.

The thwarting of deflationary trends should be a priority for policymakers, as debt deflation can have deleterious consequences. Deflationary trends should be countered with measures to raise nominal wages, nominal incomes, and prices. While the primary objective of large-scale employment programs mentioned earlier is to achieve full employment, a secondary objective is to promote the inflation target set by the authorities. Hence, the nominal wage floor (the effective minimum wage) in large-scale employment programs should be consistent with the authorities' inflation target.

The Chinese authorities can allow some correction of real estate prices, but a large collapse would have pernicious repercussions. Policy responses to limit the scope of house price corrections are probably the best option and should consist of a judicious combination of demand-side policies, supply-side policies, and restructuring measures that allow for adjustments of real estate prices but prevent a catastrophic collapse.

The economic strategy that the Chinese authorities should pursue should focus on stabilizing the business cycle while fostering transformational growth. The insights from the three economists and modern money theory discussed above can be quite useful in achieving these aims. However, these ideas would need to be applied creatively to cope with various other major issues confronting China, such as climate change and environmental degradation, tensions with Western nations, peace and security, governance, human rights, income and wealth inequality, and social stability.

In the past several years, tensions between China and Western nations have increased, arising due to both economic and geopolitical issues. Conflicts around economic issues concern international trade imbalances, protectionism, intellectual property rights, the exchange rate, technology, access to Chinese markets, and Chinese investment overseas. Conflicts over geopolitical issues range from Taiwan, Russia's military intervention in Ukraine, rights to the South China Sea, and the international security regime. Current Western leadership largely perceives China as a threat and peer competitor, as reflected in NATO's (2022) statement, cited in Finkelstein (2023):

The People's Republic of China's (PRC) stated ambitions and coercive policies challenge our interests, security and values. The PRC employs a broad range of political, economic and military tools to increase its global footprint and project power, while remaining opaque about its strategy, intentions and military build-up. The PRC's malicious hybrid and cyber operations and its confrontational rhetoric and disinformation target Allies and harm Alliance security. The PRC seeks to control key technological and industrial sectors, critical infrastructure, and strategic materials and supply chains. It uses its economic leverage to create strategic dependencies and enhance its influence. It strives to subvert the rules-based international order, including in the space, cyber and maritime domains. The deepening strategic partnership between the People's Republic of China and the Russian Federation and their mutually reinforcing attempts to undercut the rules-based international order run counter to our values and interests.

While NATO's view dominates the current discourse among the Western ruling class, a more sober view is expressed by Bertrand Russell (1921, 187): "The problem of transforming China into a modern country is a difficult one, and foreigners ought to be willing to have some patience while the Chinese attempt its solution." China's leadership will have to carefully manage the country's relationship with the West and avoid a military escalation if its goal is to build a moderately prosperous society in the near future.

V. Conclusion

Chinese economic growth has slowed since the economy's post-pandemic reopening. Inflation is ultralow, reflecting weakness in effective demand. Real estate correction, which is particularly pronounced in Tier 2 and Tier 3 cities, is ongoing. The Chinese authorities may need to undertake substantial fiscal stimulus, promote targeted policies to reduce the vouth unemployment rate, stabilize the housing market, and be prepared to do "whatever it takes" to reflate the economy. Chinese authorities should, however, be mindful of the perils of debt deflation. Keeping this in mind, the authorities should take corrective measures to prevent the emergence of a deflationary mindset among consumers, businesses, and borrowers/lenders. In case deflationary trends arise, policymakers should counter them rapidly and resolutely. While the risk of a hard landing in the United States has declined in recent months, a sharp slowdown in the global economy can have adverse effects on the Chinese economy. In turn, the slowdown of the Chinese economy can also hamper a robust global economic recovery by depressing the demand for commodities and dampening commodity prices. The insights of Irving Fisher, John Maynard Keynes, Hyman Minsky, and modern money theorists can be quite useful for Chinese policymakers in analyzing current economic conditions and the country's development challenges. Their insights can also be valuable in formulating and implementing an economic strategy and economic policies that can stabilize the Chinese economy to facilitate modernization and transformational growth.

References

- Akram, T. 2022. "One-Factor Keynesian Models of the Long-Term Interest Rate." *Journal of Economic Issues* 56(2): 356–61. <u>https://dx.doi.org/10.1080/00213624.2022.2050151</u>
- Akram, T. 2021. "A Note Concerning the Dynamics of Government Bond Yields." *The American Economist* 66(2): 323–39. <u>https://dx.doi.org/10.1177/0569434520988275</u>
- He, Z., and G. Jia. 2020a. "Rethinking China's Local Government Debts in the Frame of Modern Money Theory." *Journal of Post Keynesian Economics* 43(2): 210–30. <u>https://doi.org/10.1080/01603477.2020.1734468</u>
- He, Z., and G. Jia. 2020b. "An Institutional Analysis of China's Reform of Their Monetary Policy Framework." *Journal of Economic Issues* 54(3): 838–54. https://doi.org/10.1080/00213624.2020.1791604
- Finkelstein, N. 2023. "The Mask is Off: Why Ukraine Will NEVER Be a NATO Member." <u>https://normanfinkelstein.substack.com/p/the-mask-is-off</u> (online only).
- Fisher, I. 1933. "The Debt-Deflation Theory of Great Depressions." *Econometrica: Journal of the Econometric Society* 1(4): 337–57. <u>https://www.jstor.org/stable/1907327</u>
- Fisher, I. 1932. Booms and Depressions: Some First Principles. New York: Adelphi Company.
- Keynes, J. M. (1936) 2007. *The General Theory of Employment, Interest, and Money*. New York: Palgrave Macmillan.
- Keynes, J. M. 1930. *A Treatise on Money, Vol. II: The Applied Theory of Money*. London: Macmillan.
- Lommen, Y. F., and L. R. Wray. 2015. "Monetary and Fiscal Operations: A Look at the Options." In J. Zhuang, P. Vandenberg, and Y. Huang (eds.), *Managing the Middle-Income Transition: Challenges Facing the People's Republic of China*. Cheltenham, UK: Edward Elgar Publishing. <u>https://doi.org/10.4337/9781783477708</u>

Minsky, H. P. (1986) 2008. Stabilizing an Unstable Economy. New York: McGraw-Hill.

- NATO. 2022. *NATO 2022 Strategic Concept*. https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.p_df (online only).
- Russell, B. 1921. *The Problem of China*. London: George Allen and Unwin Ltd. <u>https://archive.org/details/problemofchina00russ</u> (online version)
- Wray, L. R. 2015. *Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems*. Basingstoke, UK, and New York: Palgrave Macmillan.

Wray, L. R. (1998) 2003. Understanding Modern Money. Paperback edition. Northhampton, MA: Edward Elgar.