The Frost Feed: Thought Leadership



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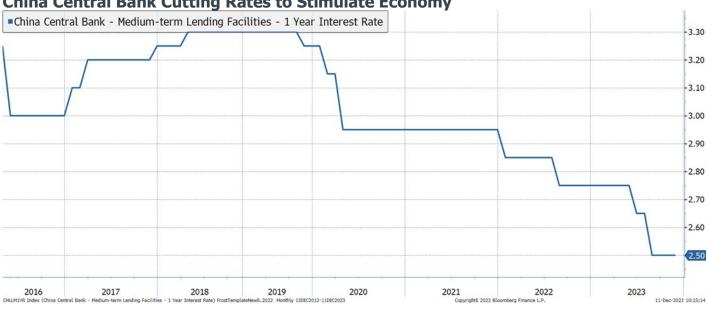
January 12, 2024

China's Struggle for Growth

The world's second largest economy has been in a rut, unable to boost growth back to its pre-pandemic level. The steps taken to stimulate the economy have been meager compared to past attempts and to little effect. China suffers from a host of structural problems that will make achieving the economic growth of past cycles extremely difficult. It is saddled with a deflating housing bubble, an aging population in decline, high debt levels, and one of the largest misallocations of capital the world has ever seen.

China has been cutting its one-year lending facility, now at only 2.5%, as opposed to Western economies, which have been aggressively raising interest rates to combat inflation. China's CPI and PPI are signaling deflation, with their 10year sovereign bond falling to 2.7%, not far from the pandemic lows of 2.5%. Domestic credit growth is picking up somewhat but is coming off a 14-year low. Meanwhile, money growth, as measured by M2, had been accelerating throughout 2022 and continued to grow in 2023. Taken together, this shows that banks are flush with cash but are not lending. This is a classic "liquidity trap" where a central bank issues cheap money with little benefit to the real economy.

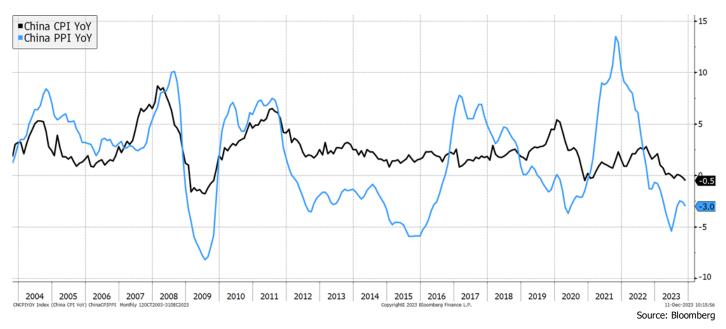
China is experiencing a modest economic rebound, but it pales in comparison to the recovery experienced by many Western countries, especially the United States. While they have instituted some targeted stimulus measures, Xi Jinping and party leaders have yet to issue an expansive package for economic support, perhaps in recognition of the deeper structural problems. They seem hesitant to throw more money toward unproductive projects to kickstart an economy anchored by excessive investment in bloated sectors with a rapidly aging citizenry.



China Central Bank Cutting Rates to Stimulate Economy

Source: Bloomberg

Consumer Price Index and Producer Price Index Reflect Deflation

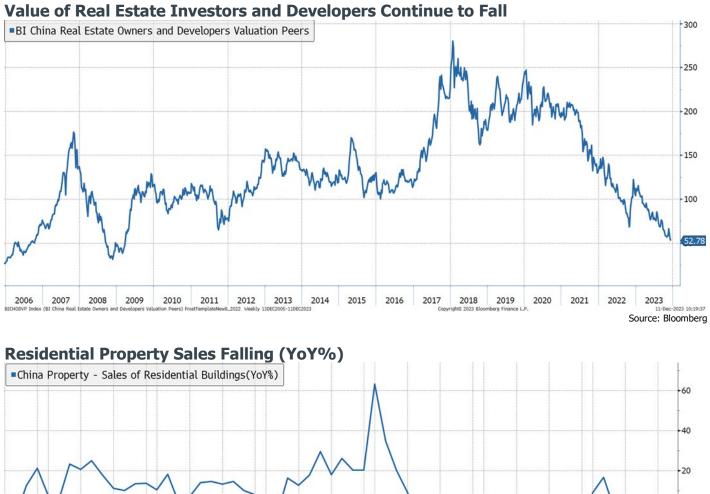


Real Estate

The most difficult problem for policy makers to tackle is the deterioration of the real estate market, which was a key driver of growth and wealth as China emerged on the global stage. In 2022, real estate accounted for an estimated 30% of the country's economy, 70% of household wealth, and 40% of collateral held by banks. Building completions have been contracting for almost two years and are down 9.1% year over year. Starts are down 60% and prices have fallen 10-20% in many cities. Unlike the U.S., China's real estate market is approximately 90% new homes. Many cities have made it illegal for developers to offer large discounts, meaning that market-clearing prices may be even lower. The total value of new home sales saw a temporary boost from the reopening but has been contracting though much of 2023, down 28% year over year. Unit sales are down over 20%. Goldman Sachs estimates current residential inventory is the equivalent of 23 months of demand. Under normal conditions, a healthy market in the U.S. would be about six months of supply.

The distress in the real estate market has resulted in several high-profile failures, raising the default risk for a host of other Chinese developers. Country Gardens, the largest private-sector homebuilder, defaulted on an offshore \$500 million bond in October. The other failed private giant, Evergrande, finally filed for bankruptcy in August. According to Goldman Sachs, China property developers' high-yield bond default rates are 42% for 2023 and are estimated to be 35% for 2024. The Hang Seng Property Index has lost more than 50% of its value over the past four years, and a Bloomberg gauge of developer shares recently hit its lowest level in 16 years.

The persistent weakness has caused the central government to take measures to support housing. China has recently allowed lower mortgage down payments, encouraged lenders to lower rates, and scrapped rules limiting who qualifies for a loan. These seem more like measures to mitigate further downside than outright stimulus for fear of reinflating the property bubble.



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Source: Bloomberg

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The ruling Communist Party has implemented a litany of directives to stifle freedom, creativity, and innovation, which has hampered growth and seriously damaged confidence in property rights for would-be investors and entrepreneurs. The tech crackdown alone has destroyed more than \$1 trillion dollars in market value in the sector since it began more than two years ago. The scrapping of the Ant Group IPO, Didi's state-directed removal from app stores, massive fines imposed on Alibaba, state regulators demanding their pre-approval for any new apps or updates from Tencent, and the state ordered breakup of online payments giant Alipay have been some of the higher profile interventions. During 2022, China implemented a ban on private tutoring, and authorities have begun forcibly taking over private education institutions. A ban on cryptocurrencies was put in place as well. The Communist Party has also cracked down on research due diligence conducted on Chinese firms, making it increasingly difficult for outsiders to vet companies for mergers,

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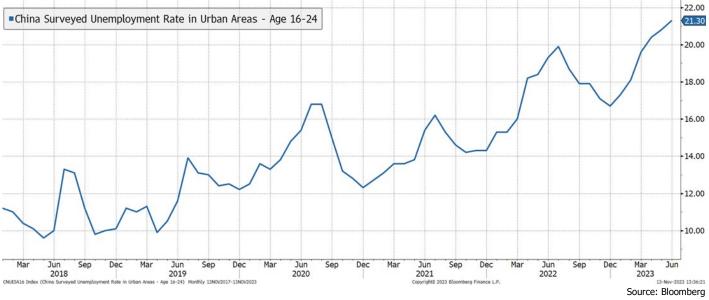
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joint ventures and investment. These changes have had a chilling effect on domestic and international investors and capital allocators, contributing to a precipitous drop in foreign direct investment.

Youth Unemployment

Highlighting another structural problem, a shocking urban youth unemployment rate of 21.3% was reported in August, prompting Chinese authorities to announce that they would stop reporting the data. The suspension of the report does not mask the fact that China has a disproportionately middle-aged and older population and is in desperate need of employment opportunities for younger individuals to replace a rapidly aging workforce. Onerous crackdowns on the private sector, especially in tech, have created a mismatch between the educations pursued and the most desirable career opportunities available, crushing the dreams of youth. The regulatory boot on the throat of the private sector combined with the growing teaching, embracing and appearance throughout film and popular culture of Marxism have encouraged many younger citizens to shun the private sector and vie for a government job to become a "civil servant." Creating enough government jobs to reduce unemployment has also been difficult as the government struggles to raise revenue and expand its size; total government spending has been falling year over year.



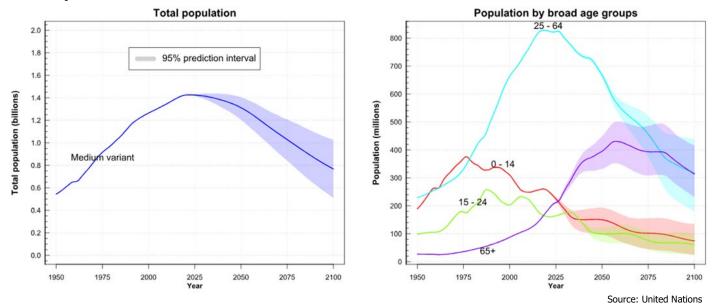
Youth Unemployment Soaring in Urban Areas

Demographics

A rapidly aging citizenry and a dearth of births has caused China's official population to fall for the first time in 2022, down 850,000. The United Nations estimates China's fertility rates are 1.2 births per woman, ranking 198th out of 204 countries. China also has one of the highest male-to-female ratios in the world at 1.04 males per female.

The disproportionately large elderly cohort is driving an inescapable and prolonged decline in population. According to Bloomberg Economics, the working-age population, currently reported at almost 1 billion people, is expected to fall 30% over the next three decades. Just in the last three years, the working age population has fallen by 41 million. The UN estimates that the total population will be roughly halved by 2100. The government's understanding and handling of this problem has been stunningly underwhelming, as the Politburo waited until 2021 to allow couples to have a third child, after relaxing the one-child policy in 2016. This is much too little too late; the country needs younger productive working-age citizens today, not a quarter of a century or more from now.

The outlook becomes dire for an aging and declining population. China's demographics are going to put a severe drag on consumption as the population nears retirement. The country has a weak social security system, so the onus of spending during retirement is on the individual or their family to a greater degree than in other developed countries. Fewer workers will produce less tax revenue at a time when demands for government services are increasing. In the midst of this, the country has borrowed, raised and spent an epic level of capital on an asset class that has only one real purpose: to shelter people. China has misallocated resources significantly toward the one thing they will least need as their population falls, slowly pouring gasoline on the growing dumpster fire that is the real estate market.

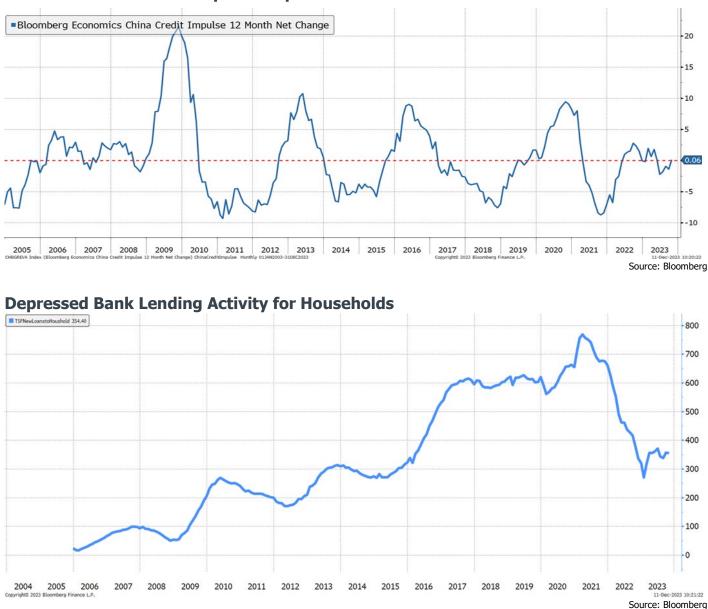


Peak Population Passed

Government Response

The fiscal response to the weakening growth has been disappointing thus far. The credit impulse, a measure of aggregate lending growth relative to GDP, is showing no growth. Recently, Xi authorized the issuance of additional sovereign debt, raising the budget deficit ratio, making an unprecedented visit to the central bank to increase public confidence in the move. The 3% limit on the budget deficit was lifted to 3.8%, to accommodate this additional spending as tax revenues fall due to tax cuts and declining land sales. The plan includes issuing additional sovereign debt of 1 trillion yuan (\$137 billion) before the end of 2023. However, this 0.8% boost in spending pales in comparison to past stimulus measures in economic downturns.

The Chinese central bank, the Peoples Bank of China, lowered its one-year lending rate but the five-year rate remains unchanged. Bank reserve requirement ratios have been lowered by just two 25-basis-point cuts in 2023. The government has also boosted infrastructure, robotics, and electric vehicle spending, but there is disagreement if these collective policies will result in meaningful growth. Authorities have eschewed stimulus to households, as direct fiscal transfers have been meager and credit issuance for this cohort has been at multiyear lows. Xi and others have labeled direct payments to households as "welfarism" and oppose it.



Government Stimulus Response Tepid to Date

Local Government Financing Vehicles (LGFVs)

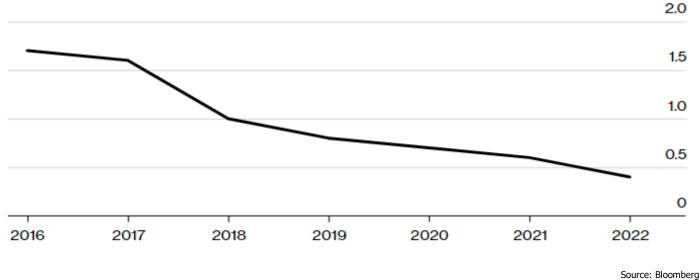
The central government is finally ramping up fiscal support as the legacy way of government financing though local government financing vehicles comes under increasing financial stress and scrutiny. The official central government debt is quite low, only about 50% of GDP, but this masks a much larger problem, where an estimated \$9 trillion dollars of debt at the local government level (according to Bloomberg) is beginning to show cracks.

LGFVs are unique to China and are an off-budget mechanism to finance the central government's growth directives at the local level. Localities, faced with a heavily restricted local government bond market (similar to the American municipal bond market), rely on the use of LGFVs. When Chinese cities need to build a road, bridge, water plant or other infrastructure project, they use an LGFV to raise the money, often through a bank or bond issuance, and then invest the money in the project. Unfortunately, the return on the investment can often be less than what is needed to pay back the debt. In a Ponzi scheme-like structure, as investment projects have historically raised the value of the nearby

government land, they then sell the rights of the land to property developers. Developers then build, and if the project realizes cash flows, the money is then paid back to the local government, which can then pay off the LGFV loan or bond.

This tenuous financial structure illustrates why China is in such an economic rut. This debt-fueled growth via the property market was successful for decades during boom times, but a collapse in the property market is threatening to bring the whole shell game crashing down. The LGFVs are already terribly cash strapped; according to Goldman Sachs, at the end of 2022, LGFVs had only a 0.4 cash-to-short-term-debt ratio. They have less than half the money on hand necessary to pay just their debts coming due the next 12 months. When property developers become severely cash strapped or, even worse, default, the problem grows larger. The number of LGFVs that are delaying payments to suppliers has been rising. Local governments have so tied themselves to profits from the property market that the current rolling failures will undoubtedly create chaos, with no clean way to exit this mess.

Government Sponsored Financing Vehicles Cash Starved



LGFV cash to short term debt ratio, median

The Financial System

All these problems are manifesting throughout the Chinese financial system. The stock market has underperformed broader global indices; on a 10-year horizon, the total return for the MSCI China Index is only up 10% cumulatively, not annualized. That compares to the MSCI ACWI Global Equity Index and the MSCI USA Index, which are up 114% and 196%, respectively, in the last 10 years. Over the same time period, China's GDP has more than doubled, showing how little investors have participated in the country's rapid growth.

The government is proposing a new "stabilization fund" to support the broader equity market, something they haven't done since the 2015 market crash, when the Shanghai Composite Index lost a third of its value in a month.

Given the degree to which the banks are struggling, it is no surprise that financial sector equity prices have been weak, down three years in a row. China recently announced their sovereign wealth fund would buy additional shares in the four largest state sponsored banks, in hopes of boosting the ailing sector. This fund, as well as other government entities, have also been buying ETFs to prop up the stock market.

Investors' lack of confidence in China's financial system is showing itself in an even more important place, the currency. The yuan was a poorly performing currency in 2023, recently reaching a 16-year low, before rallying into year end. China has been intervening heavily in the FX markets for the last several months to prevent the currency from falling further. This may be an unsustainable strategy, but the PBoC has a large sum of U.S. Treasuries, among other assets, it can sell

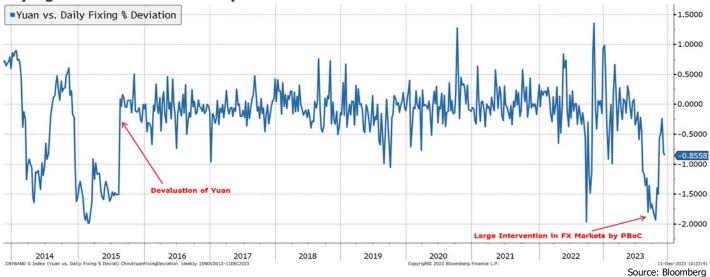
off to fund the intervention. The country's official FX reserves are currently worth over \$3 trillion. These numbers are likely underestimated due to China's sensitivity of being seen as a currency manipulator, leading them to accumulate large sums of "shadow" foreign reserves. It's difficult to know how large they are but some estimates put the total foreign reserves at greater than \$6 trillion. With reserves this large, China can continue to prop up its currency for quite some time.

Recently, the repo rate, what financial institutions charge each other for overnight loans, spiked to levels indicative of financial stress. The sharp rise came from non-bank financial institutions, with some paying upwards of 50% versus 1.9% for banks that day. Though the issue was quickly resolved, banks are now borrowing for short-term liquidity at a record pace, according to Bloomberg. With banks rapidly shoring up liquidity, they are having to pay higher rates for it, likely to compensate for risk. Even the banks viewed as safe are having to pay higher rates for these short-term borrowings. This may be evidence that the spike in the overnight rate wasn't a one-off but an indication of something more serious within the financial system.

Rest of World Outperforming Chinese Equity Markets



Trying to Stave Off the Collapse of the Yuan



The Impossible Trinity

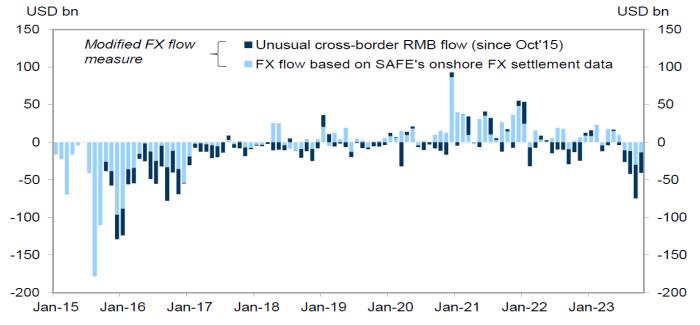
In economic theory, China faces what is characterized as the Impossible Trinity. This theory states that a country may have control of its monetary policy (increasing and lowering rates when they choose); it may control the value of its currency; and it may have free flow of capital. However, all three conditions cannot exist at the same time. China is trying to have each of the three conditions. It is easing monetary policy to prevent the economy from sinking further into deflation, while aggressively acting to control the value of its currency. China has a closed capital account for domestic investors, but it allows foreign capital to flow in and out in accord with its restrictive requirements.

Despite these controls, the combined capital and financial account shows the largest outflows since 2015. One estimate from Goldman indicates that FX outflows hit \$75 billion in September 2023, the largest amount since 2016, and have continued in October. Net foreign direct investment, an important driver of economic growth, is cratering, falling to a record low since the data was first collected in 1998. China also continues to experience securities investment outflows, after seeing large outflows for most of 2022.

With the high rates in the U.S., the low rates and currency weakness in China are likely exacerbating the outflows. A reversal of the easy monetary policy could help reverse the outflows, but tighter monetary policy would likely drive China deeper into deflation. China could tighten the screws on its rules for capital flows but given the Chinese ambitions to become a primary player in global financial markets, this would seem to be a last resort move. Xi's professed goal is to make China a nation that "leads the world in terms of composite national strength and international influence by the middle of the century." If foreign investors are unable to retrieve their money and assets from China, this would impair China's reputation as a financial hub in the global economy.

The Chinese seem content to drain their FX reserves to prop up the currency, but if the falling yuan or capital flight continues, they will eventually have to resort to more aggressive measures. Another strategy they've used recently to game the Impossible Trinity is to favor onshore investors when companies default, resulting in a wide disparity between the number of onshore versus offshore defaults. Though this prevents the economy from spiraling into deflation, it triggers nervous investors to pull money from the country, exacerbating capital flight.

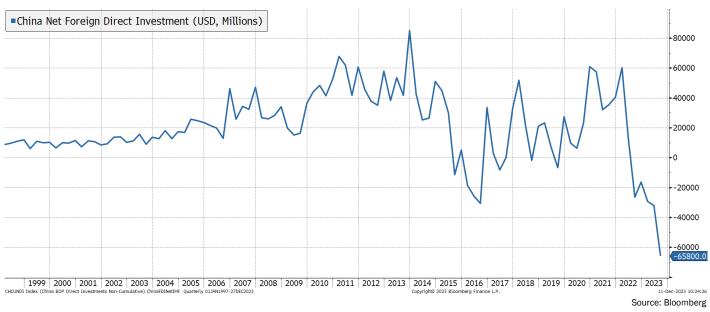
It has become clear that China's international economic policy places it between a rock and a hard place. What the Chinese leaders choose to do next is hard to determine, but whatever choice they make, there is likely to be pain.



Threat of Capital Flight Growing

Source: Bloomberg

Foreign Direct Investment Cratering



The Road Ahead

This analysis of China's economic problems hasn't touched on the geopolitical landscape. Possible war with Taiwan, the overly ambitious Belt and Road Initiative, Xi's purge of top government officials to solidify his power, and changes in trade policy further complicate the path forward for the communist regime. China is never again going to see the growth of the 1990s, which was driven by liberalization of their economy under Deng Xiaoping. China will even have difficulty sustaining the growth levels of this most recent decade.

Something akin to how Japan's economy performed after the collapse of its real estate market, starting in 1991, is a tempting parallel. But this is unfair because China's problems are so much greater. Japan had continued population growth after the bubble burst and didn't see a peak in its population until about two decades after the economic downturn. Meanwhile, China is experiencing a property market disaster in tandem with an accelerating population decline. Japan also had a more diversified industrial base, subscribing to Western ideals of a liberalized economy and strong support for intellectual capital, keeping it competitive globally. While China has embraced technology and invested significantly in developing technical and scientific talent, the actions the government has taken to limit autonomy and innovation ensure it will fail to achieve its goal of global leadership.

Japan became rich before it got old, allowing it to move to a consumption-based economy before demographic destiny took hold. China has had this same goal for many years, but this is a tough model to install by fiat as it would require the central authority to change policy from what it has been for more than two decades. They would have to relinquish direct rule over investment but given the Chinese government's path toward ever-increasing control and a significant portion of their society already past peak consumption because of age, this is unlikely. The country may end up being stuck between a post-industrial, post-investment-led export model and a consumer-led model. With all the issues they face, China is likely to see long-term sclerotic growth, with the risk of an outright deflationary collapse of its economy.

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