

TYCHOS

SPOTLIGHT REPORT: ASIA

2022 Q4
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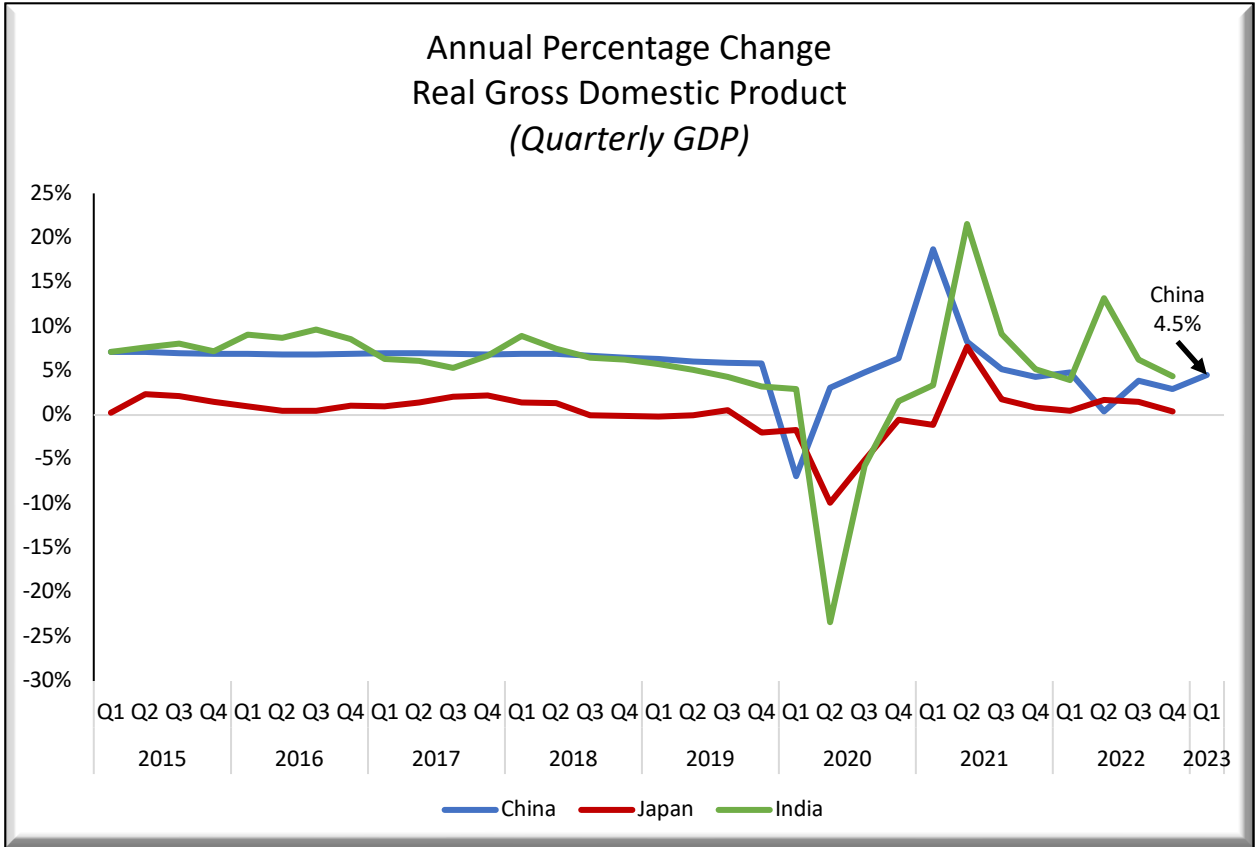
Credit Derivatives on the Rise in Japan as Risk Continues to Concern Global Markets

China Looks to Business and Government Debt to Boost Economic Growth, Debt Growth in India Remains Stable

Gross Domestic Product

As of the fourth Quarter of 2022, Japan observed marginal real GDP expansion, while India observed decelerating but still considerable growth. China's real GDP has decelerated for four consecutive quarters, but still grew at an average of 3.0 percent for the full year.

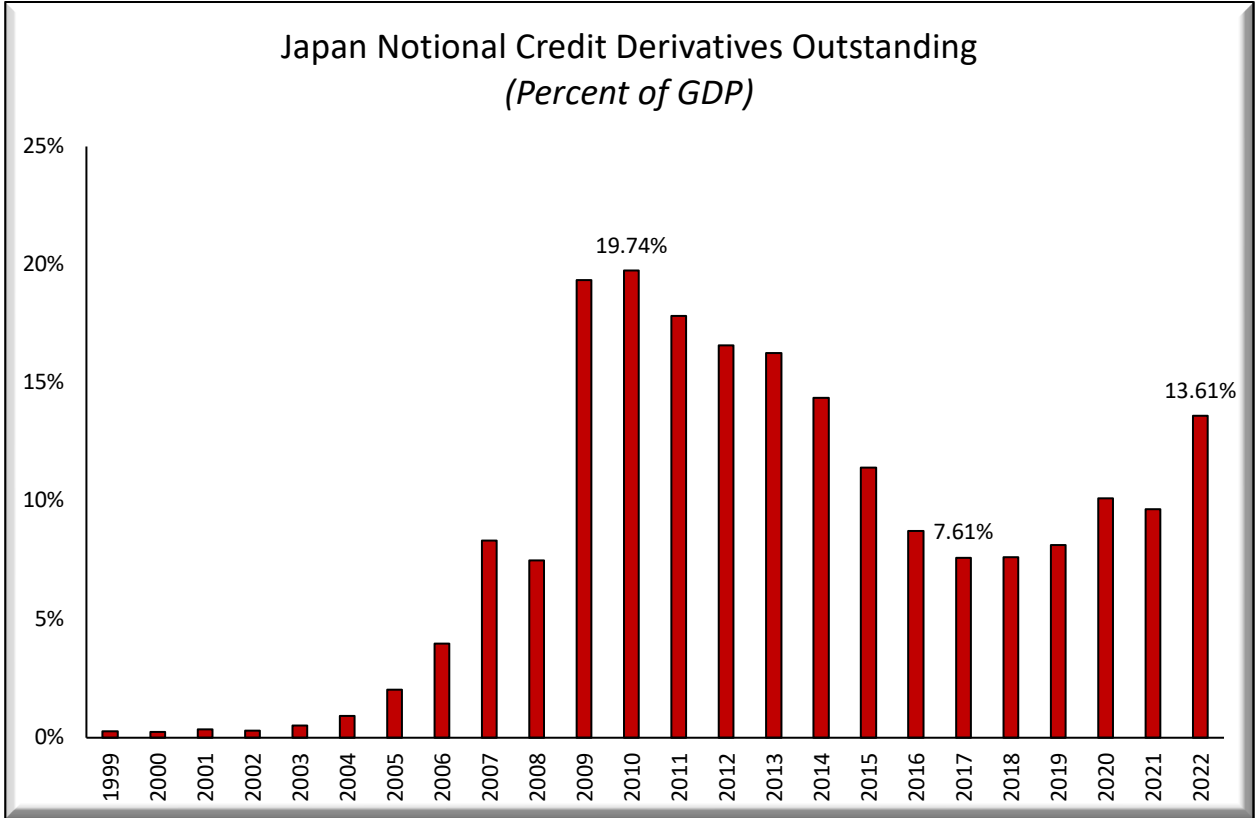
Japan's GDP for the quarter increased 0.4 percent from December of 2021 to December of 2022, down from 0.8 percent in the same quarter of the previous year. In contrast, China's GDP in that same period grew 2.9 percent, a slowdown from 4.3 percent in the same quarter of the previous year and grew 4.5 percent from March of 2022 to March of 2023 (See Chart Below). India's GDP for the quarter increased 4.4 percent, down from 5.2 percent in the same quarter of the previous year.



Japan

Credit Derivatives:

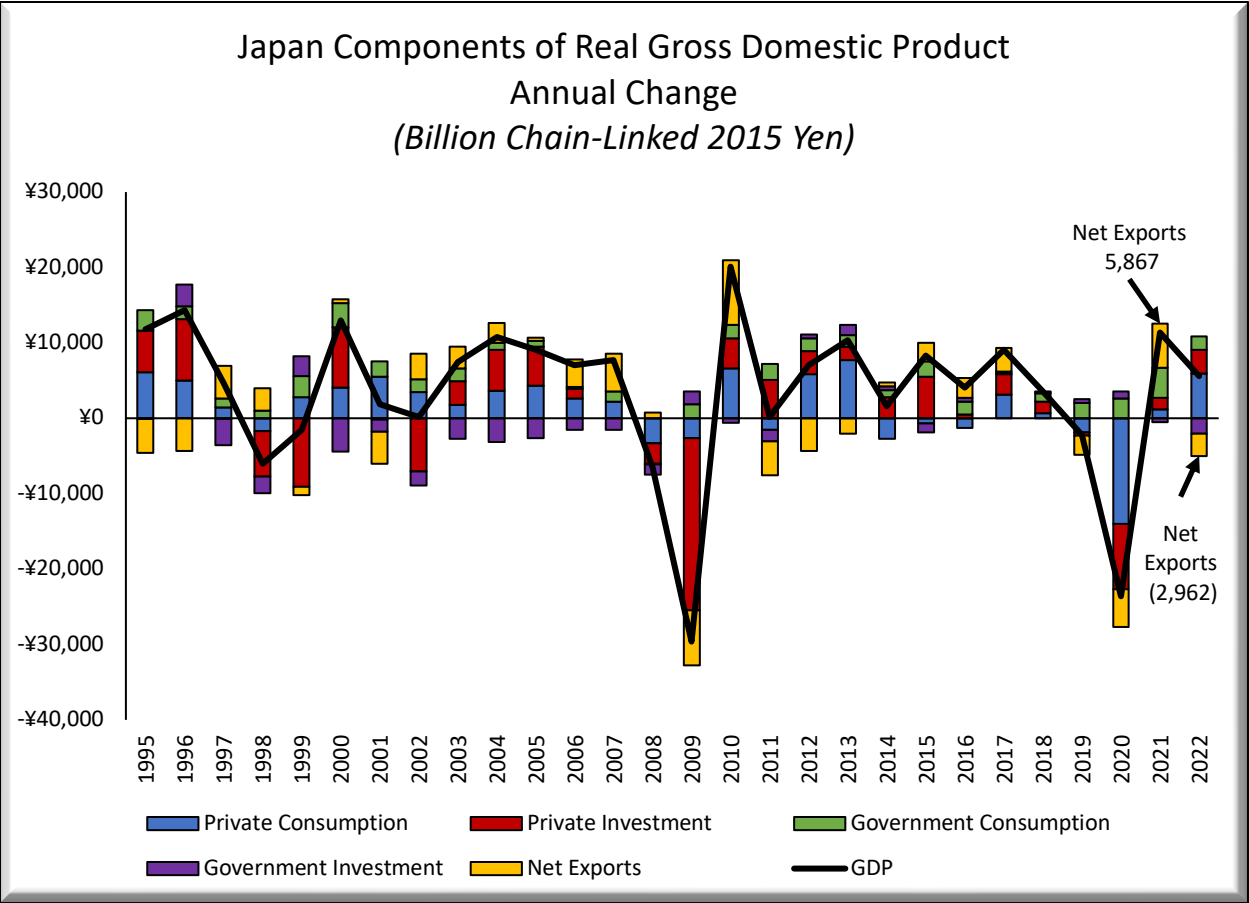
As the world continues to fight the effects of rising interest rates and inflation following the global pandemic, the need for risk management has become ever more apparent. A common tool used by investors to hedge risk during these moments is the use of OTC derivatives. However, as with any derivative trade, these transactions can bring risk. Therefore, it is important that we continue to monitor growth trends. According to the Bank of Japan, as of the fourth quarter of 2022 notional credit derivatives outstanding as percent of GDP has reached 13.6 percent, 79 percent higher than the level of 7.6 percent witnessed during the fourth quarter of 2017 (See Chart).



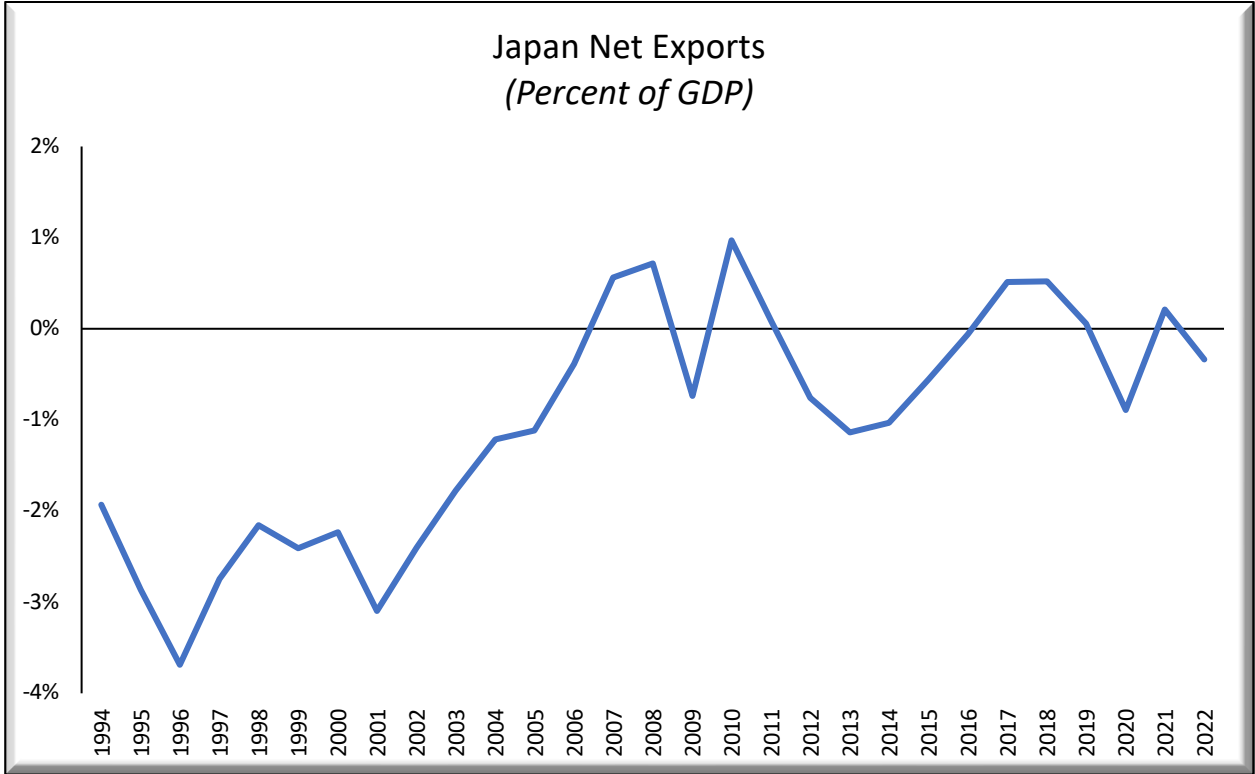
This is based on information as of 2022 Q4 that became publicly available on 03/18/2022. The next update from the BOJ on this information will be 09/18/2023.

Gross Domestic Product:

According to Japan’s Cabinet Office, Real GDP only managed to grow 5.3 trillion yen from December 2021 to December 2022, down from the 8.6 trillion yen growth in December of 2021. Looking at the change of the GDP components (See Chart), there was a contraction of net export growth from 5.9 trillion yen to -2.9 trillion yen, and government investment declined 2.0 trillion yen from 2021 Q4. Despite the deceleration, private consumption and investment were up 9.1 trillion yen in the same period, powered by 23.3 trillion yen growth in private sector debt.



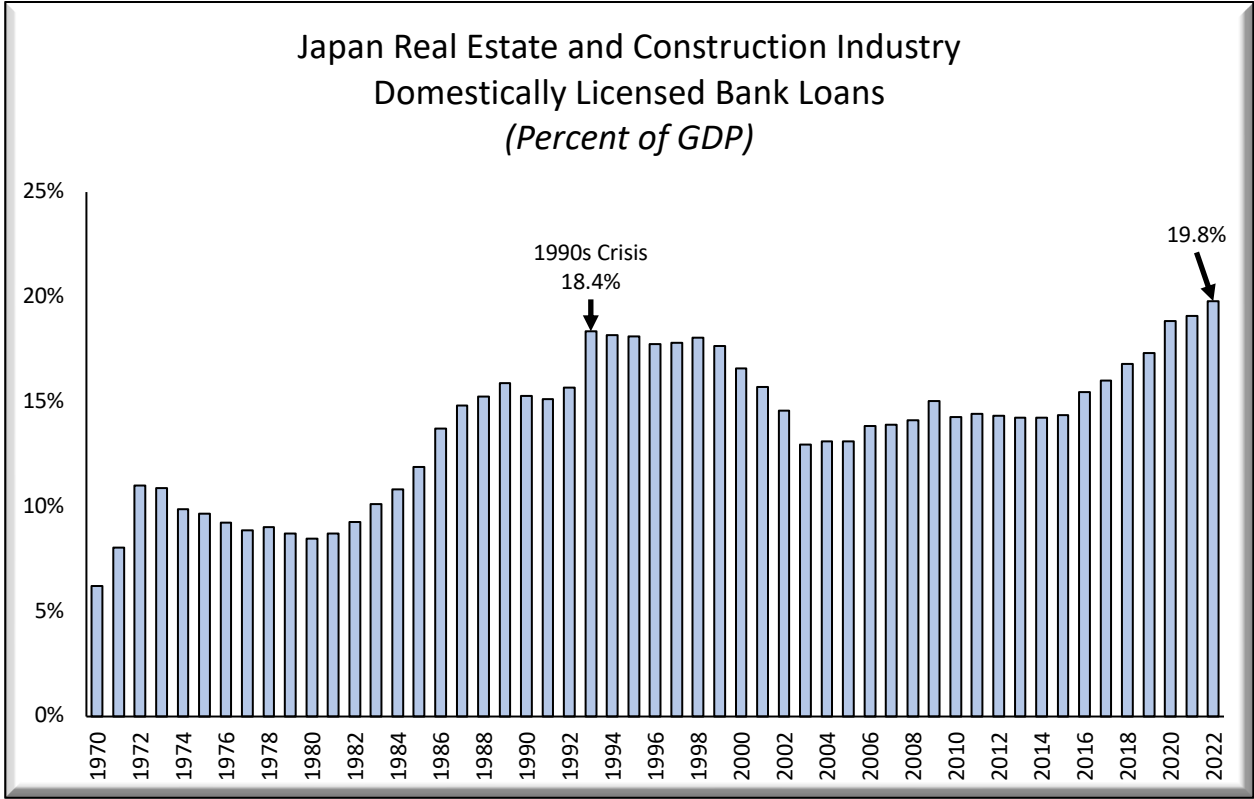
Net exports, a key driver of Japan's economy, have decelerated as a percent of GDP (see below).



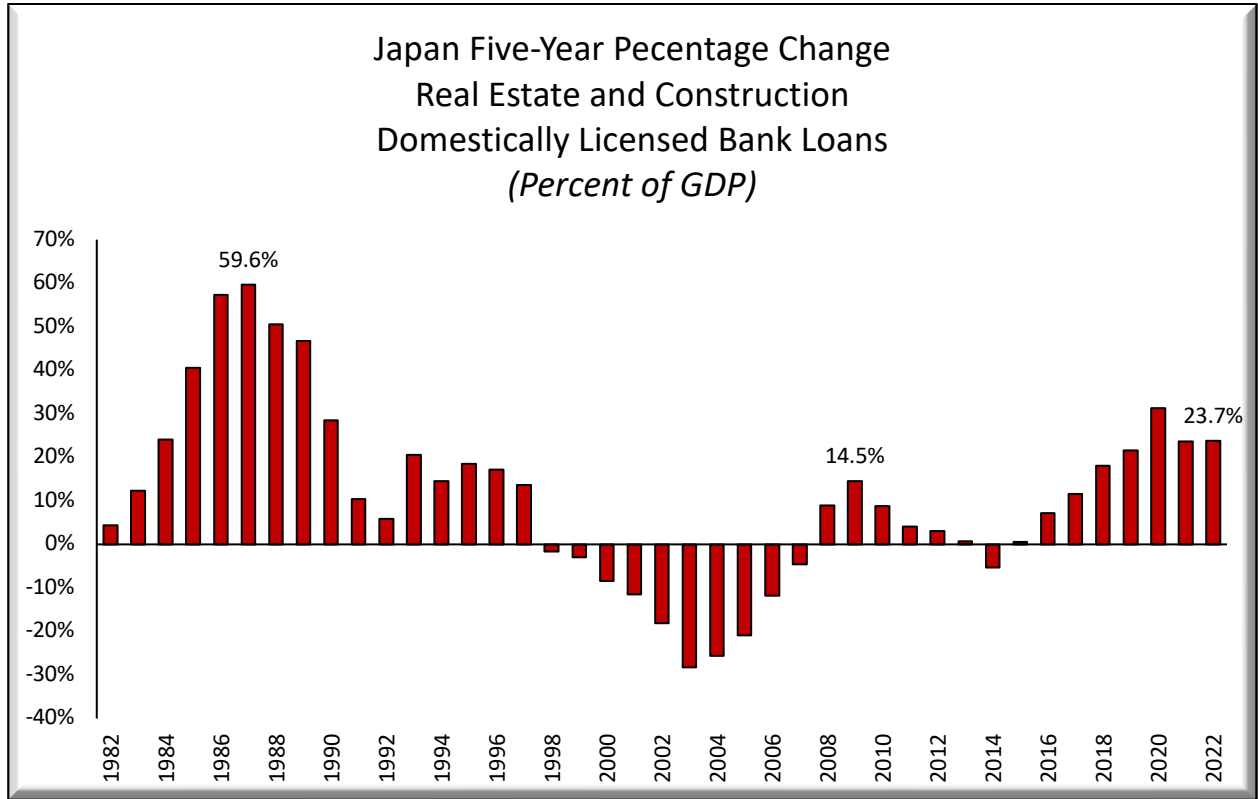
This is based on information as of 2022 Q4 that became publicly available on 03/18/2023. The next update from the BOJ on this information will be 06/18/2023.

Real Estate:

According to the Bank of Japan, as of 12/31/2022, Real Estate and Construction industry bank loans as a percentage of GDP have reached an all-time high of 19.8 percent of GDP, 24 percent higher on annualized basis than the level of 16.0 percent as of 12/31/2017, and 7.8 percent higher than the previous peak of 18.4 percent witnessed during their 1990s crisis (See Chart).



As Japan looks to the real estate market for a boost in private investment, concerns arise over long-term debt growth and over-capacity. Five-year percentage change in real estate and construction loans to GDP sit at 23.7 percent as of 12/31/2022, well above the 14.5 percent observed on 12/31/2009, yet considerably less than the 59.6 percent witnessed on 12/31/1987 (See Chart).



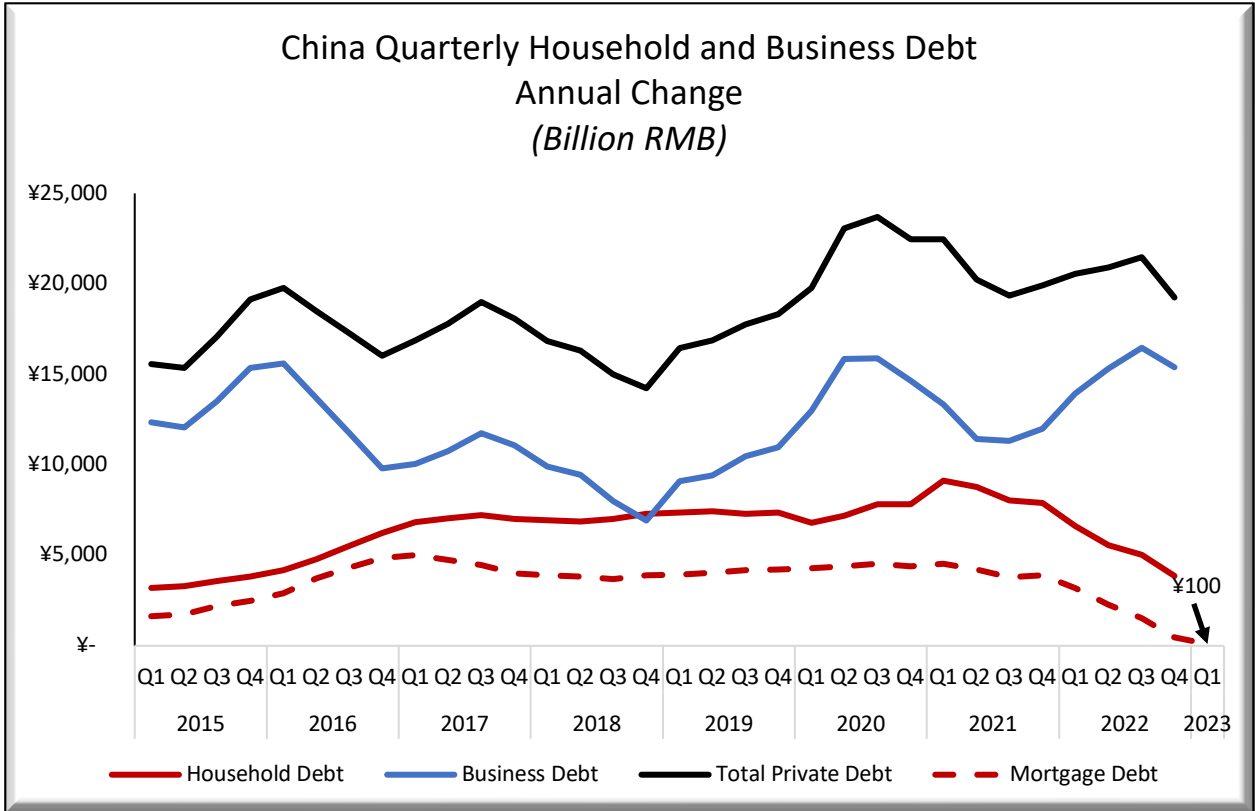
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China

Quarterly growth in nominal household debt in China has slowed down considerably. China’s five-year growth in household debt to GDP is 28 percent but slowing, while business debt to GDP sat at 0 percent in that same period. While quarterly growth in nominal business debt has been climbing again in recent quarters, indicating another possible shift to business debt as the renewed driver of China’s economy, recent data shows a slight deleverage of 161 billion RMB in the overall level of business debt from the prior quarter.

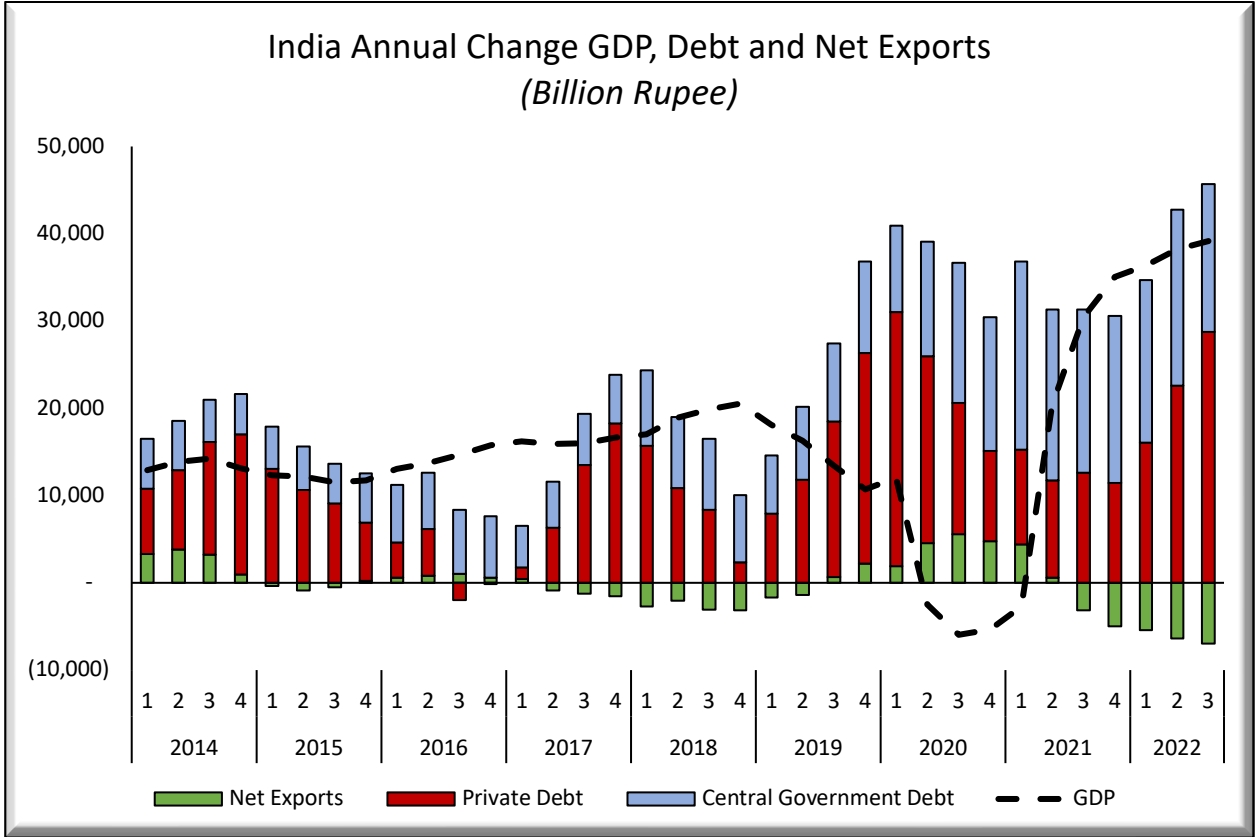
Mortgage Debt:

The slowdown in household debt can be explained in part by the deceleration of residential mortgage debt. According to the People’s Bank of China (PBOC), as of 12/31/2022 annual change in mortgage debt outstanding sits at 480 billion RMB, down from the peak of 5.01 trillion RMB growth on 03/31/2017. Even more recent data from the PBOC suggests continued deceleration, as annual change in mortgage debt drops to 100 billion RMB (See Chart).

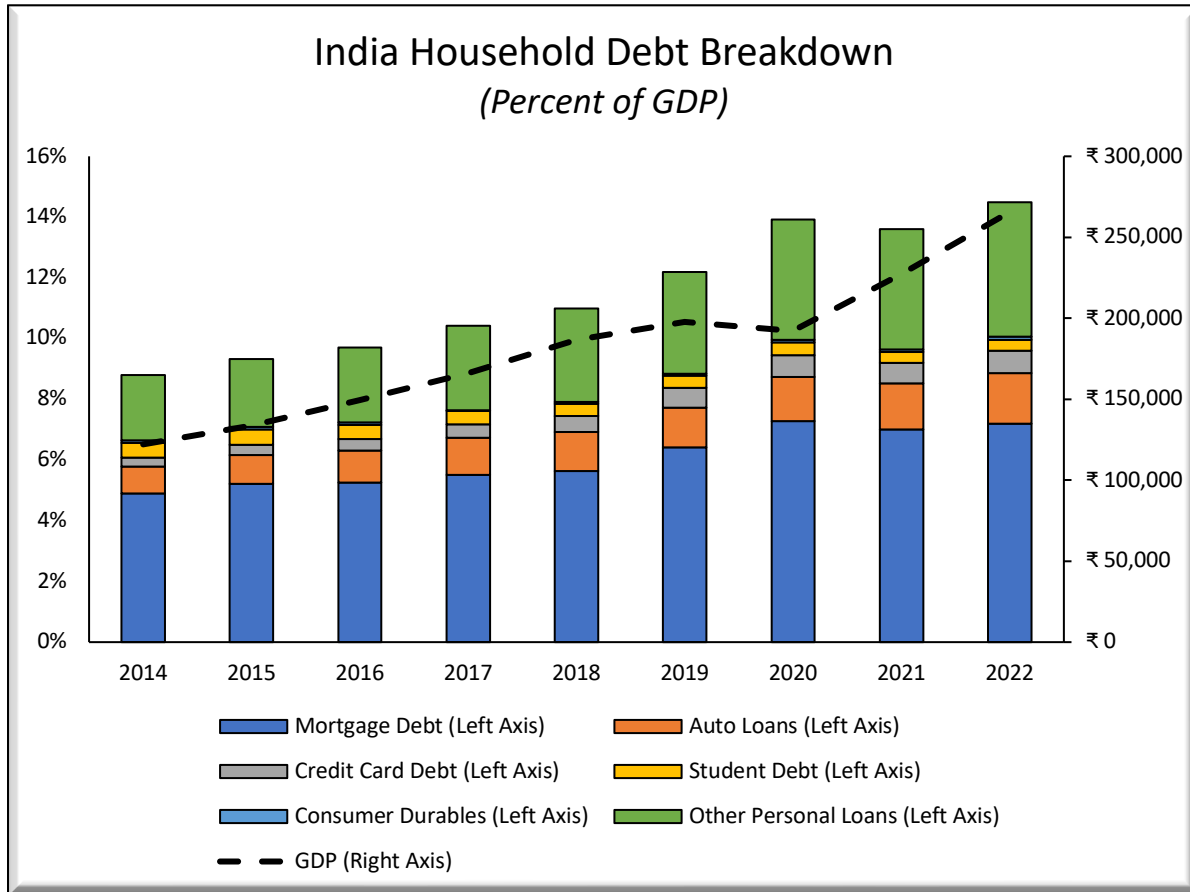


This is based on information as of 2022 Q4 that became publicly available on 03/2023. The next update from the People’s Bank of China and CEIC Data on this information will be 06/2023.

India



For the twelve-month period of September of 2021 to September of 2022 GDP increased 39.2 trillion rupees, powered by a 45.7 trillion rupee increase in total debt, despite an adverse trend in net exports. As recently as 12/31/2022, housing loans have reached 18.7 trillion Rupee, 17 percent higher on an annualized basis than the level of 16.0 trillion Rupee on 12/31/2021, reflecting continued growth in the housing market (See Chart). Nevertheless, as a percent of GDP, private sector debt growth has been flat over the last several years. This data was released on 03/2023 and complete Q4 private debt data will next be updated on 06/2023.



The category of “Other Personal Loans” is defined by the Reserve Bank of India as unsecured installment loans to individuals from scheduled commercial banks. This category of loan continues to grow relative to other types of household debt. While the definition of these loans is not fully transparent, this growth may represent household stress as they battle rising interest rates.

About Tychos

Tychos is a not-for-profit data analytics firm specializing in private sector credit and derivative information. Historically, a rapid buildup in credit in a given sector has led to credit related issues in that sector, and Tychos analyses are designed to monitor these types of trends. Tychos examines data for the largest seven economies in the world, namely the United States, China, Japan, Germany, France, the United Kingdom, and India, which collectively represent over 60 percent of global GDP.

For additional details, including commentary on recent debt trends, please visit www.tychosgroup.org.