

TYCHOS

PRESS RELEASE – 2021 Q4

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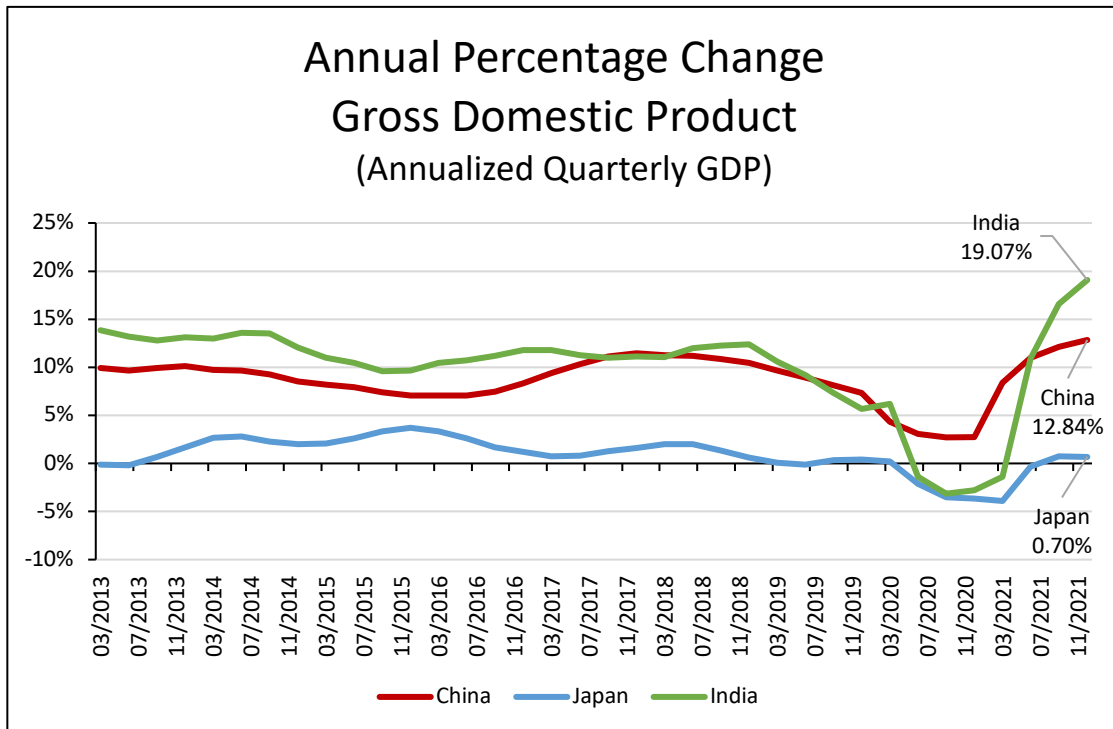
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April 4, 2022

China and India Witness Largest Annual GDP Growth in Ten Years in Pandemic Rebound *Japan GDP Remains Flat Despite Increasing Private Debt Levels*

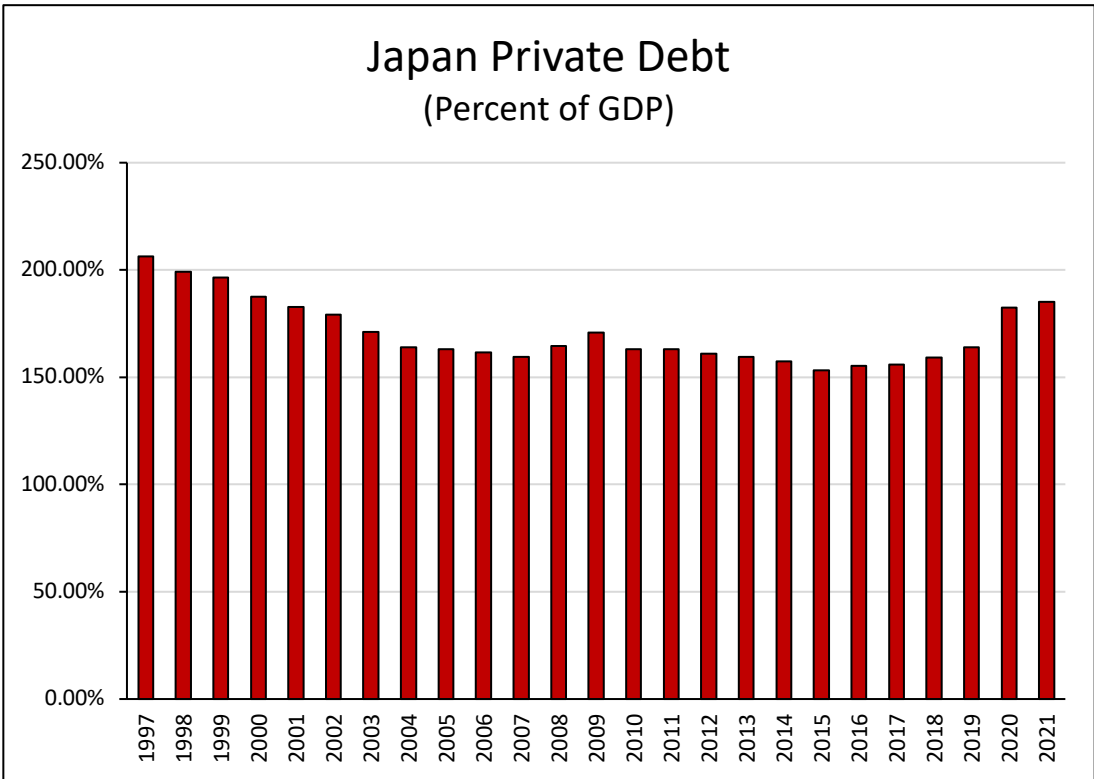
Gross Domestic Product

Japan observed marginal GDP expansion, while India and China continued to show growth. Japan's GDP increased 0.7 percent from December of 2020 to December of 2021. In contrast, China and India's GDP in that same period increased 12.8 percent and 19.1 percent, respectively (See Chart). When adjusted for inflation based off the GDP deflator, real GDP in China and India grew 7.7 percent and 8.3 percent, respectively. Growth in China and India can be attributed in large measure to the rapid rise of household and government debt, with attendant risk to household financial stability. This data will be updated next on 06/2022.



Japan

After a generation of deleveraging, Japan’s private debt continues to show sustained growth. Overall five-year country-level private debt growth to GDP increased to 19% in 2021. Private debt growth is a key contributor to GDP growth, but with this renewed growth, we will continue to monitor areas such as Transportation Equipment, Real Estate, Transport, Commodity Lease, Utilities, Construction, Small Business Enterprises, and corporate debt securities for potential excessive growth. This data was released on 03/18/2022 and will next be updated on 06/18/2022.



This is based on information as of 2021 Q4 that became publicly available on 03/18/2022. The next update from the BOJ on this information will be 06/18/2022.

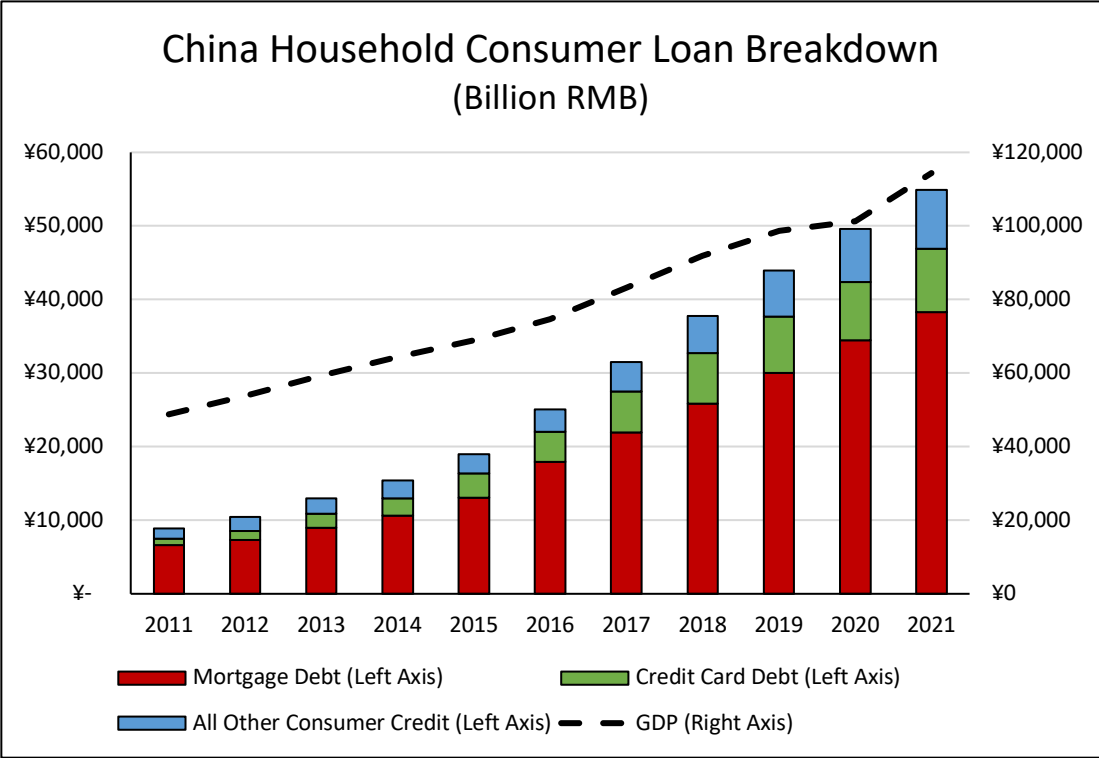
China

Rapid rise of China’s household debt led to the largest annual growth in GDP since June of 2012 (12.8 percent). China’s five-year growth in household debt has increased a brisk 39 percent, while business debt to GDP declined 4 percent in that same period, continuing the remarkable shift to household debt as the driver of China’s economy.

Mortgage Debt:

Residential mortgage debt in China has reached CN¥38.3 trillion as of 12/31/2021, 11 percent higher on an annualized basis than the level of CN¥34.4 trillion on 12/31/2020. Mortgage debt

growth, which make up nearly 70 percent of China’s consumer loans, is a key area for continued analytical attention to risk (See Chart).



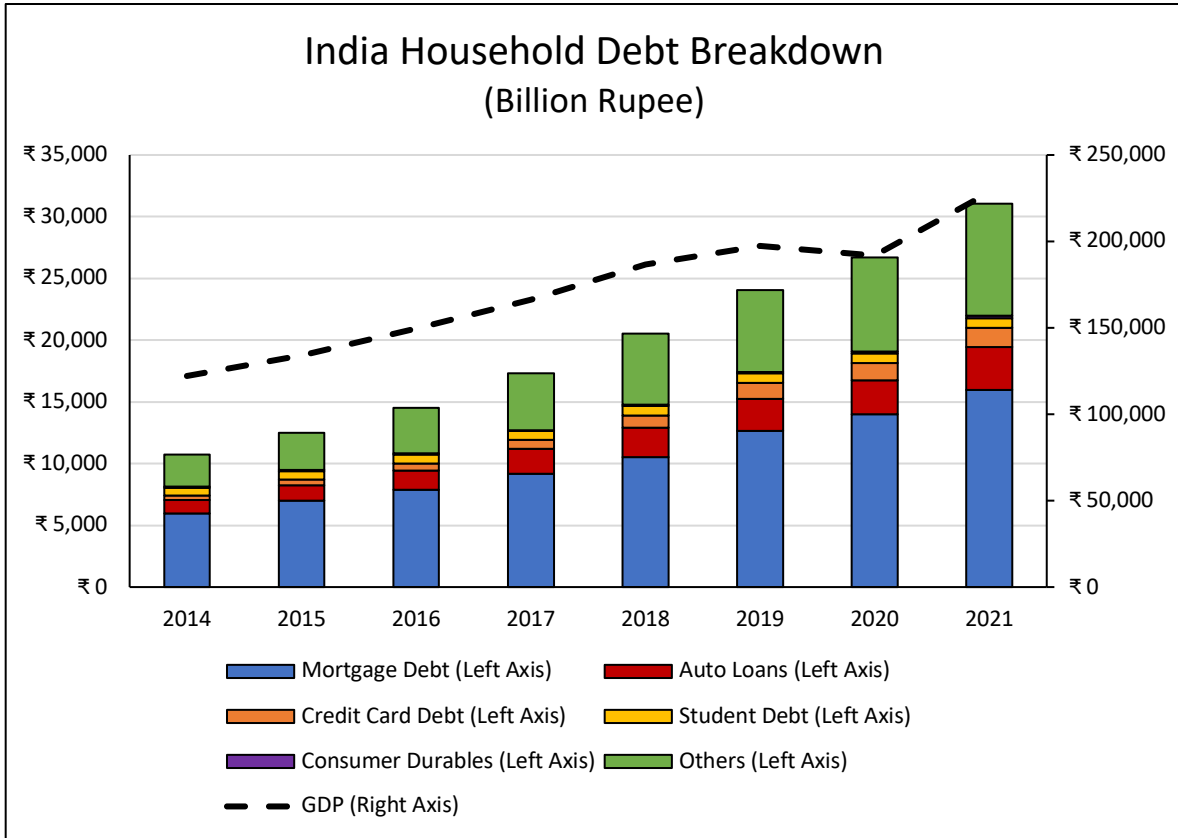
Margin Debt:

According to China’s Shanghai and Shenzhen Stock Exchanges, margin debt remains high following the peak of CN¥2 trillion in June of 2015. As of 12/31/2021, margin debt has reached CN¥1.83 trillion, 13% higher on an annualized basis than the level of CN¥1.61 trillion on 12/31/2020 (See Chart). Current forecasts show margin debt has slowed to a level of CN¥1.67 trillion on 03/31/2022.



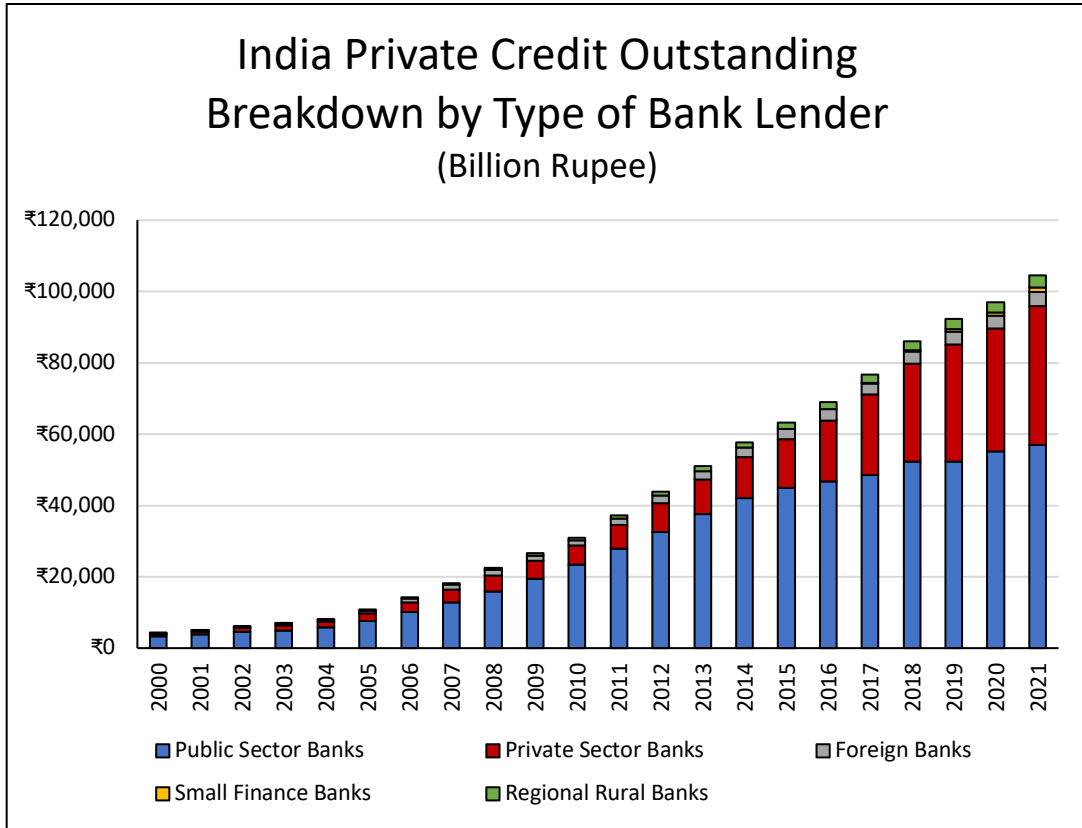
India

Overall, private debt to GDP has been relatively flat in India, however, household debt is expanding moderately, especially mortgage debt. As a percentage of GDP housing loans in India remain low at 7 percent, however, the growth does represent the emergence of private home ownership in a developing nation and will require increased attention moving forward. Housing loans have reached 16.0 trillion Rupee as of 12/31/2021, 14 percent higher on an annualized basis than the level of 14.0 trillion Rupee on 12/31/2020 (See Chart). This data was released on 03/01/2022 and will next be updated on 06/01/2022.



Private Sector Bank Credit:

As reported by the Reserve Bank of India, Private Sector Bank credit outstanding has reached 40 trillion Rupee as of 12/31/2021, 13 percent increase on an annualized basis than the level of 34.5 trillion Rupee on 12/31/2020 (See Chart). Public Sector Banks, which are banks where majority stake is held by the government, are responsible for most of the credit provided to the private sector. However, as India develops as a nation there has been a rapid increase in credit provided by Private Sector Banks. Currently, Private Sector Banks are the financial institutions in India where we are focusing our attention for newly emerging potential credit risks.



Complete data through the fourth quarter was released on 03/01/2022 and will next be updated on 06/01/2022.

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 U.S. trends, please visit www.tychosgroup.org.