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Housing, Household Debt, and the Business Cycle: An Application to China and Korea

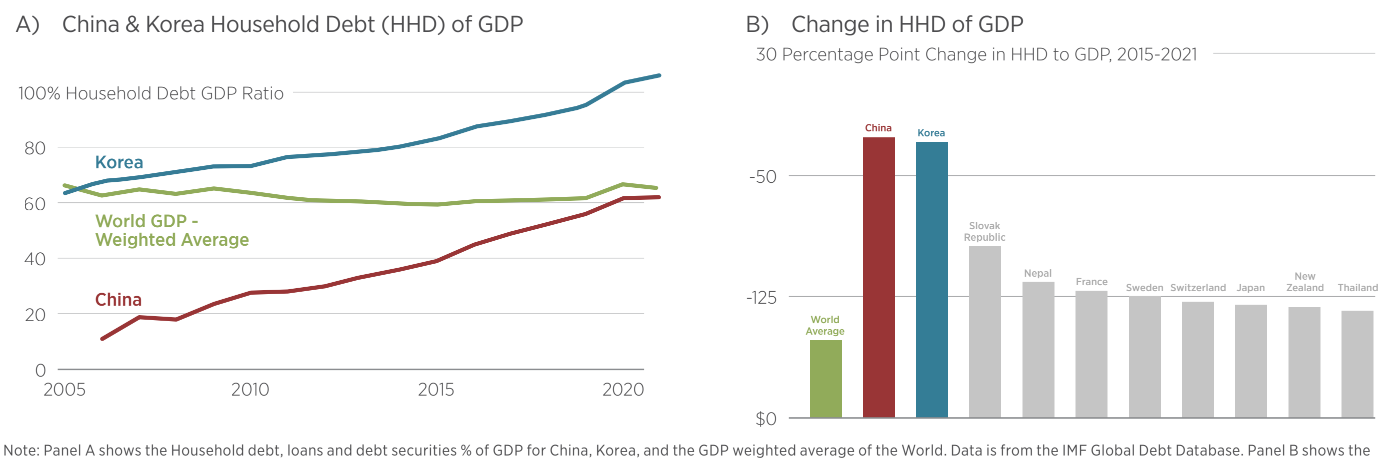
Based on BFI Working Paper 2023-109, "Housing, Household Debt, and the Business Cycle: An Application to China and Korea," by Amir Sufi, University of Chicago

While neither China nor South Korea appears at risk of a near-term severe financial crisis, consumer spending in both countries could be quite weak in the years ahead; for China, the biggest risk comes from the property market, where growth may stumble following years of boom-driving production distortions.

The boom-bust pattern of household debt was made real for many households around the world during the financial crisis of 2007-2008 and the recessions that followed in many countries, including one in the United States that was so steep it was labeled a "Great Recession." Broadly described, these episodes involve a rise in consumer spending fueled by household debt that generates increased economic activity, including within the housing industry, followed by an often-sharp economic downturn when household debt retrenches.

Research on this economic phenomenon has largely focused on advanced economies from 1967 through 2012, but recent studies have expanded to include emerging markets and other countries. Of particular concern in recent years is the significant rise in the household debt to GDP ratio in China and South Korea, which are the largest and fourth largest Asian economies. These two countries are seemingly in the later phase of a debt driven boom-bust pattern as both are currently experiencing a housing market correction and slowdown in growth. This has spurred

Figure 1 • Household Debt to GDP in China and Korea



Note: Panel A shows the Household debt, loans and debt securities % of GDP for China, Korea, and the GDP weighted average of the World. Data is from the IMF Global Debt Database. Panel B shows the change of household debt of GDP ratio from 2015 to 2021 for various countries.

questions about the impact of the housing market troubles on broader economic activity, including the potential impact on the Asian and world economies.

To get a picture of the household debt challenges facing China and Korea, let us consider the accompanying two Figures. The left panel of Figure 1 shows the evolution of the household debt to GDP ratio in China, Korea, and the world. While China started from a lower level than Korea, the rise from 2015 to 2021 has been similar. The right panel of Figure 1 shows the change in the household debt to GDP ratio from 2015 to 2021 for a number of countries. The first bar shows the average GDP-weighted rise in household debt to GDP ratio for all countries over this timeframe, which is modest. The next 10 bars show the countries with the largest increases; as is clear from the figure, China and Korea lead the pack.

Figure 2 shows the Chinese and Korean household debt boom of 2015 to 2021 compared to some of the classic booms prior to the Great Recession. The 23-percentage point rise in the household debt to GDP is smaller than some of the largest booms prior to the Great Recession, but the Chinese and Korean booms are comparable with the booms that occurred in the United States and United Kingdom from 2001 to 2007.

These facts raise important questions, not only for China and Korea but also for the rest of the world, including: Is the credit-driven household demand channel operative in China and Korea, that is, is it similar to the patterns experienced by advanced economies in recent decades? What will happen in China and Korea going forward? What are the main similarities with the previous booms in history? What are the main differences? Can a discussion of the similarities and differences help predict what lies in store for the Chinese and Korean economies over the next few years? Chicago Booth's Amir Sufi explores these and related questions in this new working paper, of which a full reading brings many insights, including those broadly described in this Brief.

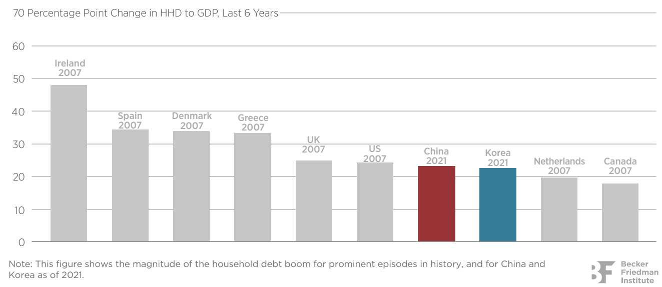
Some Good News

- Unlike the international macroeconomic situation on the eve of the Great Recession of 2008-2009, the global rise in household debt in recent years has been modest. As shown in Figure 1, the GDP-weighted global rise in household debt from 2015 to 2021 was 6.4 percentage points, which puts the rise in global household debt burdens between the 50th and 75th percentile of the distribution covering 1960 to 2021—above the median, but not extreme.
- A source of strength for both China and Korea relative to previous household debt booms is that both countries ran current account surpluses during their household debt booms. From 2015 to 2021, China averaged a current account surplus of 1.3 percentage points, and Korea averaged a current account surplus of 4.8 percentage points. While current account surpluses do not prevent a decline in growth, such declines are generally less severe.
- The willingness and ability of the government to manage financial stress due to a decline in property values is a major strength of China and Korea relative to the aftermath of previous household debt booms. In both countries, indications are that the government is willing to go to extreme lengths to prevent a major financial crisis.

On the Other Hand

- Forecasters at the International Monetary Fund are pessimistic on global growth prospects from 2023 through 2025, with lower-than-average forecasted world growth rates. A weak global economy may present challenges to China and Korea, who are likely to rely on exports to soften the blow from a slowdown in domestic consumption and residential investment.
- While a full-blown financial crisis does not seem likely in either country, China is not completely out of the woods. Issues related to bad property and local government debt could take a toll on the Chinese economy. The Chinese banking sector has large exposure to the property market, both directly and through local governments, with some estimates suggesting that 25% of banking sector assets are collateralized by property.
- The debt of local Chinese governments and local government financing vehicles (LGFVs), which generally invest in public infrastructure projects, are a key source of vulnerability. Defaults seem unlikely as the central government has led restructuring of LGFV debt.

Figure 2 • Debt Booms in China and Korea: Comparison with 2001 to 2007



Note: This figure shows the magnitude of the household debt boom for prominent episodes in history, and for China and Korea as of 2021.

However, even in the absence of defaults, real economic activity driven by the investments of property firms, local governments, and LGFVs will likely decline substantially.

- From a historical perspective, weakness in credit markets and the banking sector can have serious consequences for real economic activity, even in the absence of a full-blown financial crisis. If losses on loans to property firms and local governments weigh down on Chinese banks, it will negatively affect economic activity even in the absence of a crisis.

- The rise in house prices during a household debt boom typically boosts consumption. However, from 2015 to 2021 in China, the average annual change in the consumption to GDP ratio in China was a modest 0.10 percentage points, while the average annual change in Korea was -0.40, negative, over the same period. Of note: home equity lending is severely restricted in China, likely hindering consumption.

- There are worrisome signs for consumption in both countries. In China, where consumer sentiment is closely tied to the housing market, data reveal a significant rise in the household debt-to-income ratio for all Chinese households from 2010 to 2016. In Korea, where over 80% of mortgages are floating rate, the most worrisome issue for consumption is the sudden and large rise in interest rates, from 1.25% to 3.50% since April 2022.

- Finally, the most serious issue facing China is a possible slowdown on the production side of the economy. Studies show that credit expansion to construction and real estate firms is a powerful predictor of subsequent economic downturns, resulting in a reallocation of labor and other sectoral imbalances that further fuels a slowdown.

What Lies Ahead?

For China, that question is likely answered by another one: What is the degree to which previous property-related development and infrastructure spending artificially boosted GDP in the short run, even though these projects were not economically viable in the long run? An answer, for which more research is needed, is key to predicting China's economic direction, according to Sufi.

In the meantime, we should not be lulled into complacency by the relative strength of the world economy and by China and Korea's relatively strong international current account positions. Two main threats loom: Weak consumer spending and rising debt service ratios. Both factors are a potential drag on economic growth, and maybe a heavy drag.

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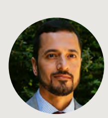

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