Enter The Dragon--How China's Bond Market May Affect Asia

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(***Editor's Note:*** *The views expressed by our Asia-Pacific Chief Economist Shaun Roache in this article are those of the S&P Global economics team. While the views of the S&P Global economics team can help to inform the ratings process, sovereign and other ratings are based on the decisions of ratings committees, exercising their analytical judgment in accordance with publicly available ratings criteria.)*

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Key Takeaways

- From April, a wedge of China's $13 trillion onshore bond market was included in a major global bond index. China's index weight will rise over time and other index providers will follow suit.
- China's bond market could start driving financial conditions across Asia-Pacific. China accounts for over 40% of the of the total region's $30 trillion local currency bond market (including Japan). Small waves from China could be tidal waves in other markets.
- The U.S. Treasury market is still the big beast in Asia-Pacific. Our work shows that local currency yields are driven mainly by the U.S. 10-year yield and global risk sentiment. China's influence will grow and index inclusion may mark an inflexion point.

China's bond market has gradually opened to the world. Foreign investors were almost completely absent a decade ago and now hold about 2% of bonds outstanding. This is still low by major bond market standards, but S&P Global Ratings believes we have reached an inflexion point.

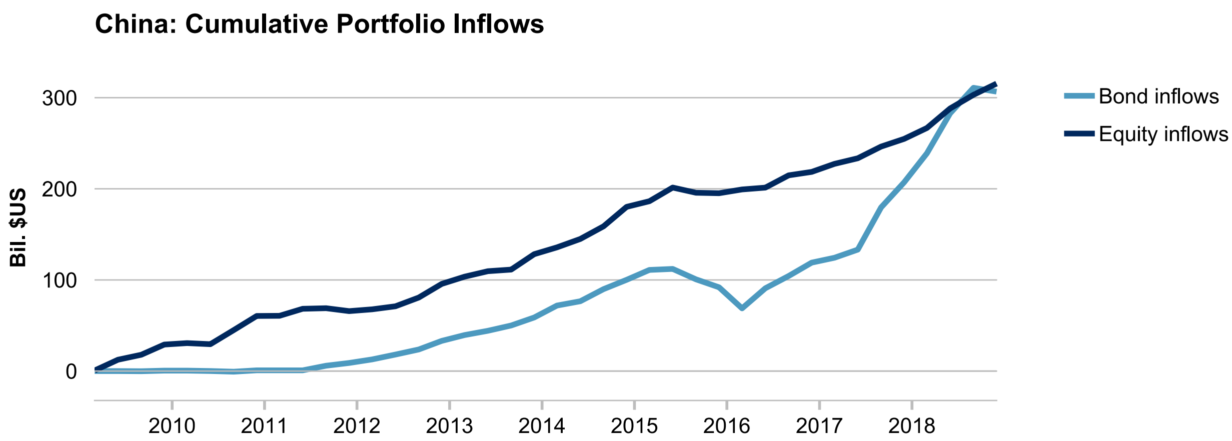
On April 1, 2019, the Bloomberg Barclays Global Aggregate Index (Global Agg) became the first major global fixed-income benchmark to include a wedge of China's vast onshore market. This index is tracked by an estimated $2.5 trillion of assets. If China's weight rises to 6% by 2021, as envisaged, this would imply inflows of $150 billion (1). Other index providers are likely to follow suit, including FTSE Russell's World Government Bond Index (WGBI), tracked by an estimated $2 trillion-US$4 trillion of assets.

In our view, index inclusion will accelerate China's global financial integration with systemic implications for China and the rest of Asia-Pacific. We do not see China's bond market influence in the historical data. However, forward-looking financial decision-makers will need to update their thinking to give China a more influential role in financial conditions across Asia-Pacific--including interest rates, bond yields, and exchange rates. We suggest that one tool, event studies, may help track the ongoing rise of Chinese influence.

China Opens Up Its Bond Market

China's path to a globally-integrated bond market has passed many milestones. Foreign investor bond inflows have picked up from almost nothing just a few years ago to reach, cumulatively, $300 billion by early 2019, catching up with inflows to the equity market (see chart 1). With global index inclusion, we believe cumulative bond inflows could top half a trillion dollars in the next few years. At current valuations, this would almost double foreign ownership to about 4%.

Chart 1



Source: CEIC and S&P Global Economics.

Index inclusion will accelerate China's global financial integration with two systemic implications:

China will become more exposed to the global financial cycle. Foreign investors, increasingly present in China, will compare the risk-return profile of Chinese bonds to global benchmarks. This will challenge China's current policy framework and a more flexible exchange rate may be needed to absorb shocks.

China will increasingly affect yields and financial conditions across Asia-Pacific. This matters for policy and growth. Financial conditions help drive business cycles by affecting central bank policies and the ease and cost at which domestic households and firms can access credit.

Foreign Investors Are Underinvested In China

Even if foreign investors owned 4% of China's bond market, the rest of the world would still "under-own" Chinese bonds relative to other markets. We think the right comparison is not emerging markets like Indonesia and Mexico (where the foreign share is notoriously high) but other large, systemically-important markets denominated in reserve currencies included in the IMF's special drawing rights basket.

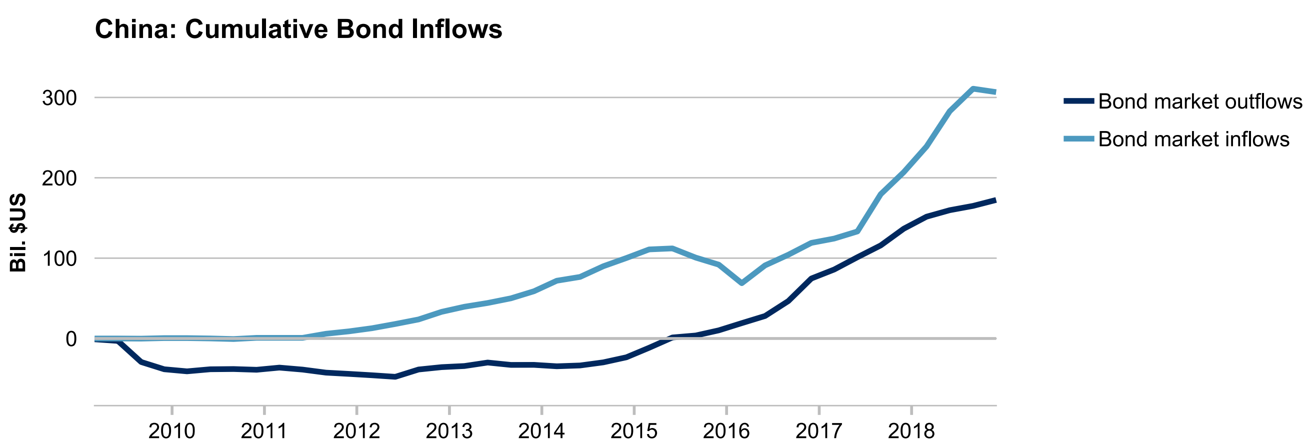
Consider the United States and Japan. The foreign ownership shares in the U.S. and Japanese bond markets stood at about 24% and 12%, respectively, at the end of last year (2). It would be naïve to assume China's foreign-ownership share could reach U.S. levels anytime soon. The U.S.

dollar remains the preeminent global reserve currency. Structural impediments will also act as a constraint for China, including a managed capital account and limited capacity for hedging exposures. Demand for credit bonds will continue to be affected by uncertainties surrounding bankruptcies, defaults, and creditor rights. But important recent research suggests that China is making progress in these areas (3).

Foreign Inflows Could Allow More Chinese Outflows

As foreigners enter, an opportunity may emerge to ease controls on China's bond outflows--the ease with which Chinese investors can acquire foreign bonds. Much will depend on the balance of payments and the pressures on the exchange rate at the time. Policymakers have tended to be cautious on punching holes in the capital account for domestic investors. Still, it seems likely that the opening-up of China's domestic markets will be accompanied by complementary easing of bond portfolio outflows over the next three to five years, especially if flows become too one-sided.

Chart 2



Source: CEIC and S&P Global Economics.

More Open Markets, More External Shocks in China...And Asia

Bigger bond market flows, in both directions, will increase China's exposure to the vagaries of the global financial cycle. Investors will compare the risk-adjusted yields on Chinese bonds to global benchmarks such as U.S. Treasuries and German bunds. The Chinese market may be used as a safe haven during times of higher global uncertainty or, if real yields remains low, used to fund carry trades.

This means that China's bond market may, at times, respond more to global factors and this will, in turn, affect China's financial conditions. Even the U.S. Treasury market is buffeted by global factors from Brexit to changes in China's exchange rate policies. China's policymakers will have to adapt to this new reality and there are two policy paths open:

- A more flexible exchange rate; or
- Dynamic management of the capital account.

Some combination of these two policies is likely. Our opinion is that financial stability in China (and also the rest of the world) would be best served by letting the exchange rate act as the key capital flow shock absorber. Discretionary capital controls have their uses but they can be distortionary, leak over time and, at worst, intensify rather than ease capital account pressures.

A more open China may also pose challenges for the rest of Asia. Just as China will be more affected by the global tide, so markets across Asia will be buffeted by waves emanating from China. This will work in similar ways, through the rebalancing of fixed-income portfolios based on changing yields. Do not expect to see this in the data yet. Until now, the U.S has been the dominant external driver for local currency bond markets and financial conditions across Asia.

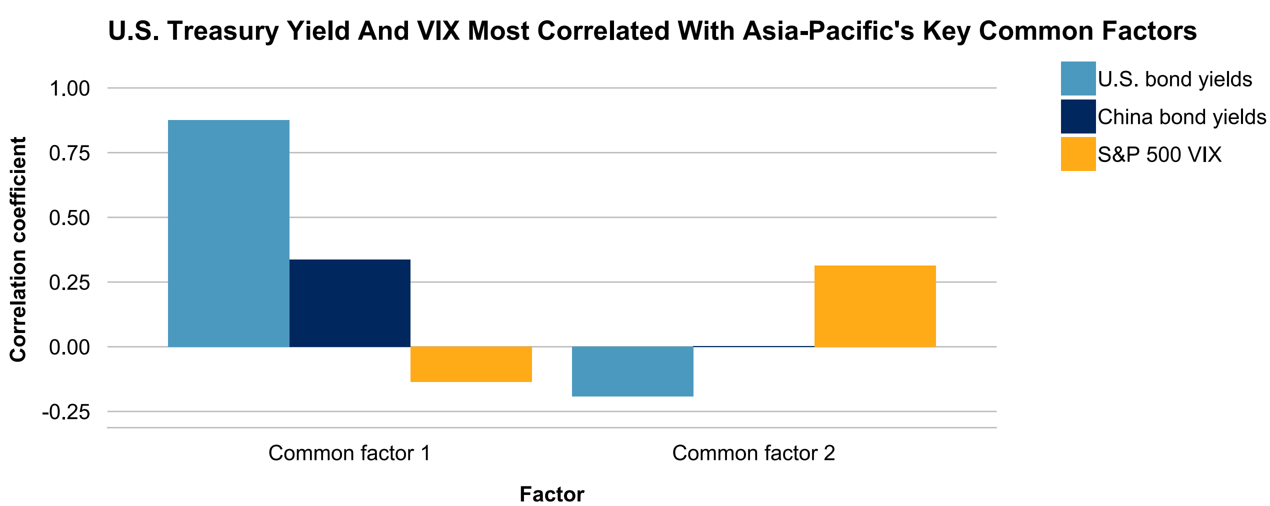
U.S. Treasury Market Is Still The Big Beast In Asia-Pacific

One way to measure the U.S. influence is to identify the common factors that drive local currency bond yields across the region. We ran a principal components analysis of monthly changes in 10-year bond yields across 12 Asia-Pacific economies (excluding China) and extracted key drivers for a sample that begins in January 2010 and ends in February 2019. This analysis helps identify so-called "common factors" which explain most of the variation in yields across all of these markets.

We estimate that the two most important common factors explain about 40% and 11%, respectively, of month-to-month changes in yields across our group of markets. One drawback of this approach is that we have to make an educated guess about what these common factors represent--they fall out of the data and we cannot define them in advance.

What we do know (see chart 3) is that the most important common factor driving regional bond yields is highly correlated with changes in the 10-year U.S. Treasury yield. The second most important common factor is correlated with the S&P 500 equity index implied volatility (or VIX) which has become known as the world's "fear gauge." This suggests two main external drivers: (1) World risk free rate (U.S. Treasuries); and (2) Risk sentiment (S&P 500 VIX).

Chart 3



Source: CEIC; S&P Global Economics.

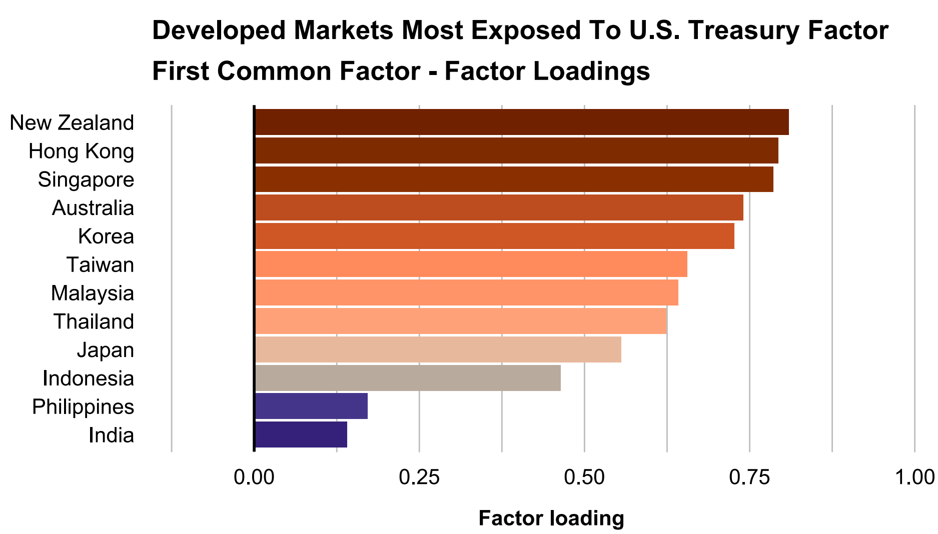
Importantly, these common factors are not correlated with Chinese bond yields. The correlation for China with both factors (dark blue in Chart 3) is well below that for the U.S. Treasury yield and the VIX, respectively. In other words, Chinese yields have not yet had a broad regional effect.

U.S. Yields Especially Important For Developed Markets

More clues can be gleaned from looking at how markets are exposed to each factor. The first common factor (the U.S. Treasury yield) is particularly important for bond yields in developed markets such as Australia, New Zealand, and Hong Kong. This is shown by the "factor loadings" which represent how sensitive each market is to what we interpret as the U.S. Treasury factor. The closer the number is to 1, the more that the U.S. factor drives that market's yield.

Asia's emerging markets (EMs) are also influenced by U.S. yields as shown by factor loadings that are positive and, in some cases like Malaysia and Thailand, well above 0.5. Broadly, though, the sensitivity of EMs tends to be lower, especially for India and the Philippines. This is due to the importance of country-specific factors in these markets but less liquidity and foreign investor holding restrictions may also play a role.

Chart 4



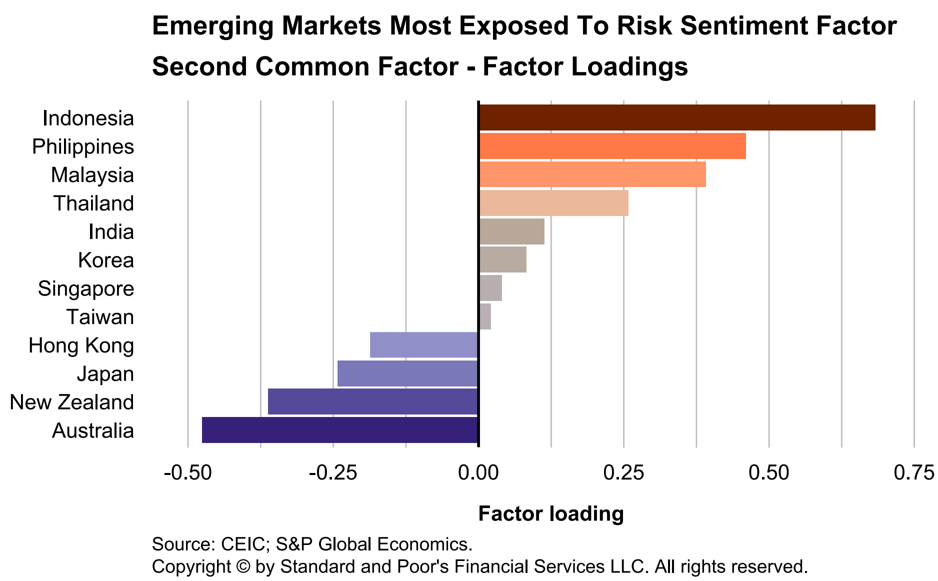
Source: CEIC; S&P Global Economics.

Risk Sentiment A Key Driver For Emerging Markets

Risk tolerance is a second big common driver for some Asia-Pacific bond markets. The second factor we extracted appears closely related to risk gauges like the VIX. When the VIX rises as investors become more risk averse, bond yields in some Asia-Pacific emerging markets rise as capital flows back out to safe havens.

Factor loadings support our interpretation--EMs with current account deficits that rely on external funding appear to be most sensitive to the global risk factor. These markets include India, Indonesia, and the Philippines. Markets with a large share of foreign investors are also affected, such as Malaysia. In contrast, bond markets regarded as safe havens see inflows when risk sentiment sours. This is especially true for Australia, Japan, and New Zealand.

Chart 5



Size Matters--Why China's Bond Market Could Become A Global Factor

Let's start by being realistic--China is not going to supplant the U.S. as the main external driver of Asia-Pacific's financial conditions anytime soon. The power of U.S. markets is not only due to their size, depth, or liquidity. It also reflects the status of the U.S. dollar as the world's reserve currency. China's renminbi will surely become more global over time but we think it is possibly decades away from unseating the dollar.

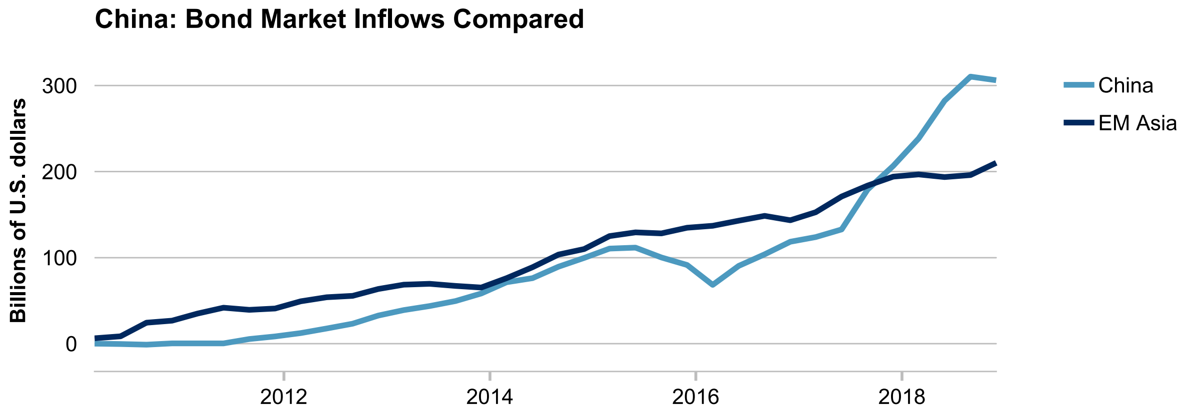
Still, that does not mean that China's yields will not soon matter for other markets. The sheer size of China's local currency bond market suggests it will become an important part of regional and global fixed income portfolios. Our credit analysts recently provided a comprehensive overview of the size of the market (see "Demystifying China's Domestic Debt Market," published on RatingsDirect on Feb. 19, 2019).

One statistics can give some perspective--China's domestic bond market is 1.5x the size of those of eight East Asia markets combined (Hong Kong, Indonesia, Korea, Malaysia, the Philippines, Singapore, Thailand, and Vietnam).

Even a small change in investors' positioning in the Chinese market could have large spillovers for other, smaller, markets.

It is early days in the opening-up of China's bond market but the gravitational pull is already apparent when we compare bond inflows to other emerging markets in Asia-Pacific (see chart 6). Since 2010, cumulative inflows into China's bond market has outpaced those of four other EMs by $100 billion or 50%. China's inflows are still small relative to Japan (at just over $1 trillion for the same period) but that gap is likely to close.

Chart 6



Note: Emerging markets (EM) include India, Indonesia, Philippines, and Thailand.
Source: CEIC; S&P Global Economics.

What This Means for Asia-Pacific

For this to matter for Asia-Pacific, China's bond yields would have to influence yields in other markets and this, in turn, should have an impact on financing conditions for the real economy. What sort of events could cause changes in China's bond market to ripple out across the region?

We recently showed that People's Bank of China (PBOC) monetary policies affected Chinese bonds all along the yield curve (see "China's Monetary Policy And The Bond Market," Feb. 21, 2019). China is not so unusual after all. It is not outlandish to assume that, in the not-too-distant future, a Chinese bond market sell-off, perhaps caused by an inflation surprise and expectations of tighter PBOC policy, triggers higher yields from Japan to India. This would be a new channel of influence of China to the region.

China does affect Asia-Pacific markets and financial conditions now but indirectly through expectations for commodity prices and trade. In our view, even the confidence effect felt during previous Chinese tremors, including the exchange rate policy changes in 2015 and 2016, could ultimately be traced to concerns about the impact on the global economy through these channels.

The IMF suggested in 2016 that while China's equity market and exchange rate were becoming more important for global markets the bond market impact was minimal (4). Has this changed? Not yet.

An Event Study--Monetary Policy Surprises in China

Our conclusion comes from our earlier results but also a case study of repricing in China's rates markets, reflecting expected changes in PBOC policy, and the impact on yields elsewhere in Asia-Pacific. We identified a list of 18 events in China since the start of 2016 in which domestic financial markets priced in an easier monetary policy. We then assessed how Asia-Pacific yields changed in the short time windows surrounding these China-specific events.

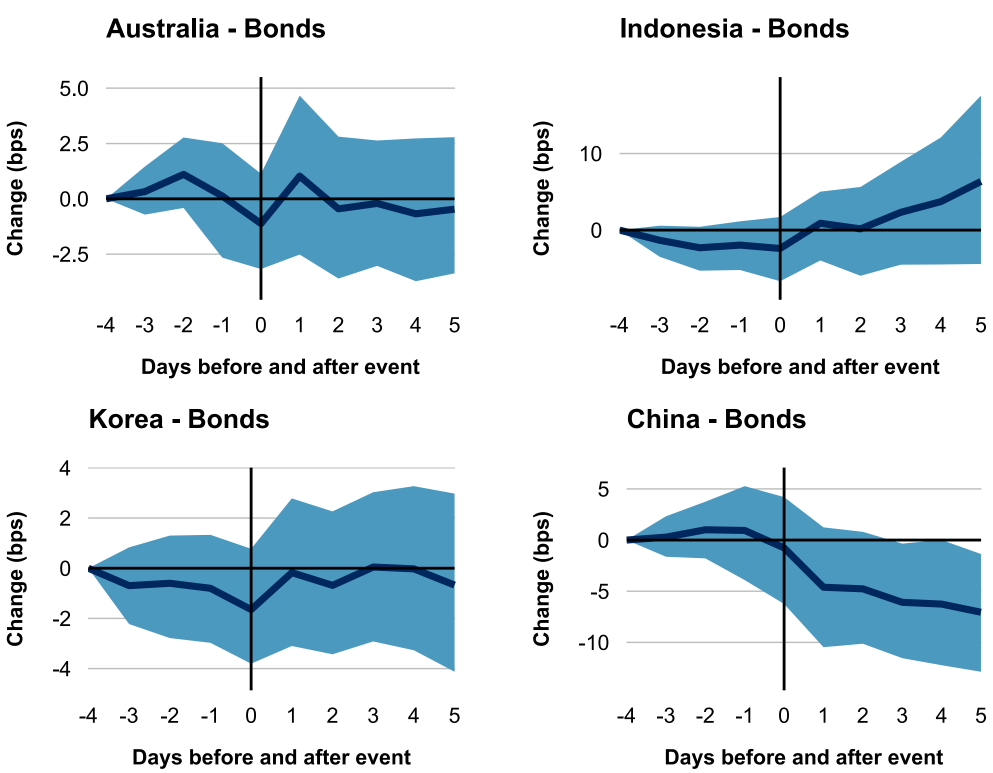
Our list of events is based on a simple rule based on our earlier article. We selected days on which:

- The one-year swap rate (a measure of policy rate expectations) declined by more than half a standard deviation; and
- The equity market rose by more than half a standard deviation, which together suggests a monetary policy rather than a growth surprise.

We then ruled out days in which Chinese markets were clearly responding to global events (we found two--the Bank of Japan's move to negative rates and the Brexit referendum). Finally, we tracked the behavior of Asia-Pacific local currency bond yields around these events. In both cases, we used the change in yields after accounting for the lagged impact of U.S. 10-year Treasury yields. We used a one-day lag given the time zone difference and our earlier result that the causality runs mainly from the U.S. to Asia rather than the reverse.

Chinese monetary surprises are not yet influencing the region (see charts in graphic 7 below). These charts trace out the cumulative change in the local currency 10-year bond yield five days before and after the Chinese monetary policy surprise. The shading is the 95% confidence interval around this cumulative change. In every case, except China, the solid blue line remains close to zero. In other words, we were unable to conclude that a Chinese monetary policy surprise that triggered a decline in Chinese government bond yields sparked a meaningful change in yields in other markets. This was true for developed and emerging markets in our region.

Chart 7



Note: Basis points (bps) cumulative idiosyncratic change.
Source: CEIC; S&P Global Economics.

Event Studies--A Useful Way To Monitor China's Rising Influence

Event studies that carefully analyze the reaction of asset prices during specific windows of time should be part of the tool kit when assessing how China's bond market influence is growing. Waiting for correlations to shift and new common factors to emerge will take time--perhaps a few years of data. In the meantime, the world will already have changed.

China's Bond Market Will Matter For Asia-Pacific

Skeptics will note that China's bond market has not really mattered for financial conditions in Asia-Pacific until now while the renminbi is decades away from supplanting the U.S. dollar as the world's reserve currency. Hence, all this talk about bond index inclusion heralding a new financial regime in the region is hot air. While the first two points are fair we disagree with the conclusion.

Two facts are now colliding--the sheer size of China's bond market and index inclusion that will act as a gravitational pull for foreign investors. This does not mean that China will fully open its capital account but the window for foreign investors in Chinese bonds will now be very wide. The only question is how quickly the influence of the Chinese bond market will rise.

We would emphasize that even if cumulative inflows to China's bond market reach half a trillion U.S. dollars by 2021, the foreign ownership share will still be below 5%. The rest of the world will still under-own the bond market of the world's largest economy (on some measures). Recall that the foreign ownership share in the U.S. is almost 25%.

As the share of foreign investors in China's bond market rises, even a small change in the positioning of global fixed income managers in China could have large effects on bond yields and financial conditions across the rest of Asia-Pacific. Such changes could include expectations of a monetary policy shift.

This new reality could change the region's financial and credit cycle and, in turn, will affect real business cycles. We think getting ahead of this dynamic and incorporating it into financial decision-making will make a substantial difference to performance. The U.S. will remain the big beast but the dragon cannot be ignored. The world has had to learn to understand "China shocks" as the changes in exchange rate policies of 2015-2016 rocked global financial markets. A new chapter has already begun.

Related Research

- China's Monetary Policy And The Bond Market, Feb. 21, 2019
- Demystifying China's Domestic Debt Market, Feb. 19, 2019

Footnotes:

(1) Some market participants suggest total inflows may be somewhat lower in the first few years of China's inclusion due to remaining practical difficulties of investing in the onshore bond market.

(2) Measured at market value and sourced from the U.S. Treasury and the Securities Industry and Financial Markets Association (SIFMA).

(3) Li, Bo, and Jacopo Ponticelli, 2019, "Going Bankrupt in China," PBC School of Finance manuscript.

(4) Arslanalp, Serkan; Wei Liao; Shi Piao; and Dulani Seneviratne, 2016, "China's Growing Influence On Asian Financial Markets," IMF Working Paper 16/173.

This report does not constitute a rating action.