

The background of the page is a dark blue field with a fine, grid-like texture. Overlaid on this are several semi-transparent line charts. One prominent chart has a yellow line that fluctuates but generally trends downwards from left to right. Below it, there are other lines in shades of pink, red, and light blue, also showing various trends. A white diagonal line cuts across the charts from the top-left towards the bottom-right.

# Is yield curve inversion coming to Asia?

Macroeconomics and Fixed Income

Article

## SUMMARY

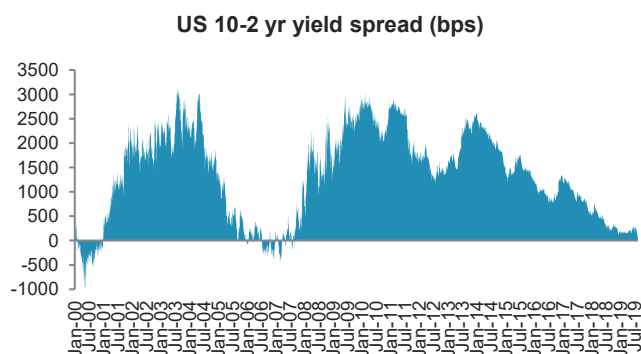
The US yield curve inverted recently with the widely-tracked spread between 10-year and 2-year bond yields turning negative on August 14 for a brief period, sending the equities market sharply down (Dow fell 800 points, its biggest fall this year). Earlier, in May, the 10-year 3-month yield spread turned negative. The inverted yield curve (negative 10–2-year spread) has preceded economic recessions several times in the past. However, there is no accurate lead time for when the recession will hit following the inversion of the yield curve (studies indicate a range of 8 to 24 months with an average period of 22 months).

Nevertheless, this time, the yield curve's inversion may be a result of bond buying driving hunt for yields driving the premium for long-term yields down, rather than indicating an imminent recession. For the same reason, as yield spreads rapidly narrow for Asian sovereigns, select Asian yield curves may also invert soon. Indeed, Singapore's 10-2 year spread turned negative on August 15, the first such inversion since 2006. This is a part of the broader phenomenon for global hunt for yields which has triggered interesting developments such as i) entire yield curves going sub-zero (Germany, the Netherlands, Switzerland) or partly negative (France, Japan); ii) regional governments such as the City of Bremen in Germany extending the maturity of bond issuance to 30-year bonds; and iii) the 50-yr bond issue by Italy being oversubscribed six times at just 2.9% yield. The hunt for yields will continue as monetary policies become more accommodative, economic growth and trade slow further globally, and major geopolitical risks (for instance, US-China trade war and 'No-deal' Brexit) continue while new uncertainties arise (such as Japan-South Korea dispute, market collapse in Argentina, or re-election in Italy). The hunt for yield would cause more yield curves to invert until the market resets amid a (painful) recalibration (fall) of asset prices.

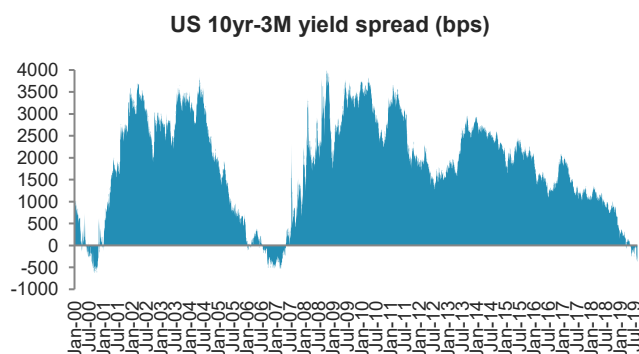
### US yield curve inverts, sending markets in a tailspin

The much-watched US sovereign yield spread between 10-year and 2-year bonds turned negative briefly on August 14, sending markets worldwide in a tailspin. Earlier, another part of the yield, the spread between 3-month and 10-year bond yields, had turned negative. Similar yield inversions have been found to have preceded the previous seven recessions. Apart from the correlation, it was highlighted in a research paper by Federal Reserve Bank of Chicago – Why Does the Yield-Curve Slope Predict Recessions? (by Luca Benzoni, Olena Chyruk, and David Kelley) – that curve inversions such as these did serve as indicators of economic recession as the bond market is more sensitive to potential economic slowdowns. However, there is no fixed lead time between yield curve inversion and onset of an economic recession. Studies indicate a range of 8 to 24 months with an average period of 22 months between the two.

**Figure 1: US 10–2-year spread**



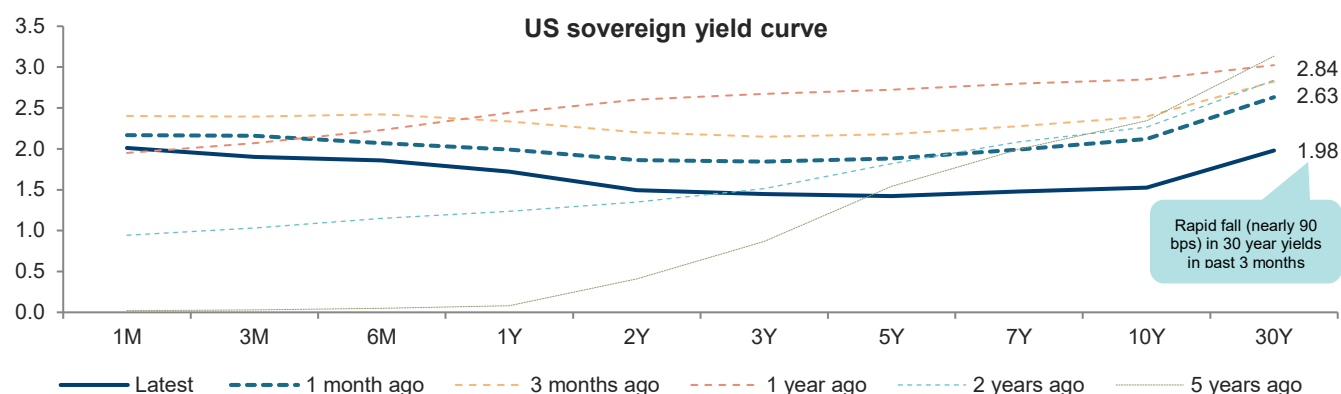
**Figure 2: US 10-year to 3-month spread**



Source: Reuters Eikon

Besides the points mentioned above, the US 30-year yield has declined quite rapidly (nearly 90 basis points) over the past three months, aggravating fears of the economy nearing recession.

**Figure 3: US sovereign yield curve movement over past five years**



Source: Reuters Eikon; Latest – As of August 15, 2019

## Yield curve inversion flashing warning signs of recession?

Economic data does not indicate an immediate recession. Despite the slowdown in certain parts of the economy (indicated by PMI, housing data), the labor market is still strong, as reflected by monthly job additions (both in terms of the US Department of Labor non-farm payroll additions and ADP data) and growth in wages at above 3%. A strong labor market is translating into consumer demand as seen in its contribution to GDP as well as retail sales growth in Q2 2019. However, companies in the US are feeling the heat arising from its trade war with China, as suggested by PMI and other sentiment surveys. If the proposed tariffs (now postponed) on the USD 300 bn worth Chinese goods (mostly consumer items such as electronics) are re-imposed after the holiday season, it would reflect on consumer prices sooner or later and on inflation, possibly impacting demand. Nevertheless, it would be premature to assume recession is knocking at the doors of the US economy, as interpreted by a few in the analyst community. A gradual slowdown is more likely, barring sudden shocks like a geopolitical escalation.

## Inversion of yield curve in the context of changing fixed income market

It is important to understand the yield curve's inversion against the backdrop of developments in the fixed income market as a whole and over a period of time. Unlike previous recoveries from financial crises, in the years after 2008, several central banks took extraordinary measures such as multiple rounds of quantitative easing or asset purchases (predominantly in fixed income market) to inject substantial liquidity in the money market. Amid ample liquidity, asset values have risen in the public market, while lending standards have declined in the private loans market. Both are reflected in lower yields (for both sovereign and corporates) and looser covenants (covenant-lite loans). Demand for top sovereigns has gone up in the chase for safer assets. This is especially pronounced at the longer end (10 years and longer) of the yield curve (demand from long-term investors like pension funds, retirement funds, insurance companies), resulting in an increase in yield curve inversions.

*Under normal circumstances, investors would demand higher yield to hold longer term bonds, as a hedge against the risk of holding for longer period as well as due to anticipation of inflation decreasing the value of money over time. Another way to view longer term yields is in terms of premium over average shorter term yields. Although short-term yields have been volatile, they have been found to converge to their average over a period of time. Normally long-term yields quote higher than short-term yields, indicating an (implied) premium, determined by the anticipated inflation and risks of default mentioned above. However, if the risks look increasingly benign (governments running bigger deficits as proposed by the Modern Monetary Theory) and the anticipation of inflation decreases (inflation has not picked up as expected despite the strong labor market and abundant liquidity), the expected premium for holding long-term debt would also reduce.*

As liquidity remains abundant and prospects of further monetary easing increase (change in policy stance by major developed and emerging market central banks), investments in longer end of the yield curve would increase as asset purchases have historically involved buying of longer dated securities. As a result, there is crowding of investments at the longer end of yield curve, sending long-term yield premium lower.

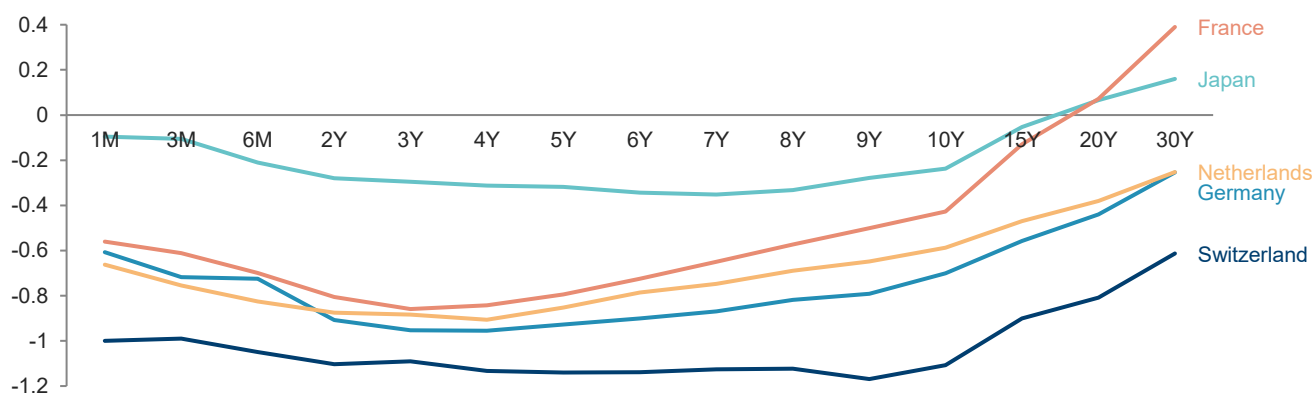
## Lower premium for long-term yields leading to curve inversion?

Lower premiums for longer term bond yields will cause the rightmost end of the yield curve to move downward (as seen in Figure 3). However, the shorter end would not necessarily fall as shorter term risks remain (or may have increased in some instances). Consequently, a yield curve inversion is a visible manifestation of a combination of falling long-term yields and steady short-term yields. As proposed in the Federal Reserve of Richmond's research paper *Have Yield Curve Inversions Become More Likely?* (by Renee Haltom, Elaine Wissuchek, and Alexander L. Wolman), dated December 2018, yield curve inversions have only become more likely and may not necessarily a bearer of bad news (for instance, imminent recession).

## Hunt for yields causing major shifts in bond market

The hunt for yields, especially at the longer end, is pushing bond markets to new limits, unimaginable in the past. For instance, recently, the sovereign yield curves of Germany, Switzerland and the Netherlands went sub-zero with the longest duration yield (such as 30-year bonds) going negative during the week ended August 8. Similarly, for countries such as Japan and France, part of the yield curve has been steadily slipping past zero (see Figure 4) and could soon follow the track of the first three countries.

**Figure 4: Sovereign bond yields (%) – Going sub-zero**



Source: Reuters Eikon; Yield curve as on August 8, 2019; M-Month, Y-Year

The hunt for yields is pushing the envelope for local government issuances too. Recently, the Free Hanseatic City of Bremen in Germany had to extend the duration of its issuance to 30 years, from the original plan of 20-year term, to be able to offer positive yields (0.45%) to investors for its EUR 750 mn issuance. Earlier in the month, the German Federal state of Schleswig-Holstein extended the duration of its issuance to 20 years (instead of the original plan for 10 years) to offer positive yields (0.27%) for investors in its EUR 500 mn issuance. In July, Italy's 50-year bond issuance was oversubscribed by six times (EUR 17.5 mn subscription for EUR 3 mn issue size) for a yield of only 2.9%, which was nearly 100 bps less than the yield for similar issuance in 2018. Interestingly, nearly 35% of the demand was from German investors!

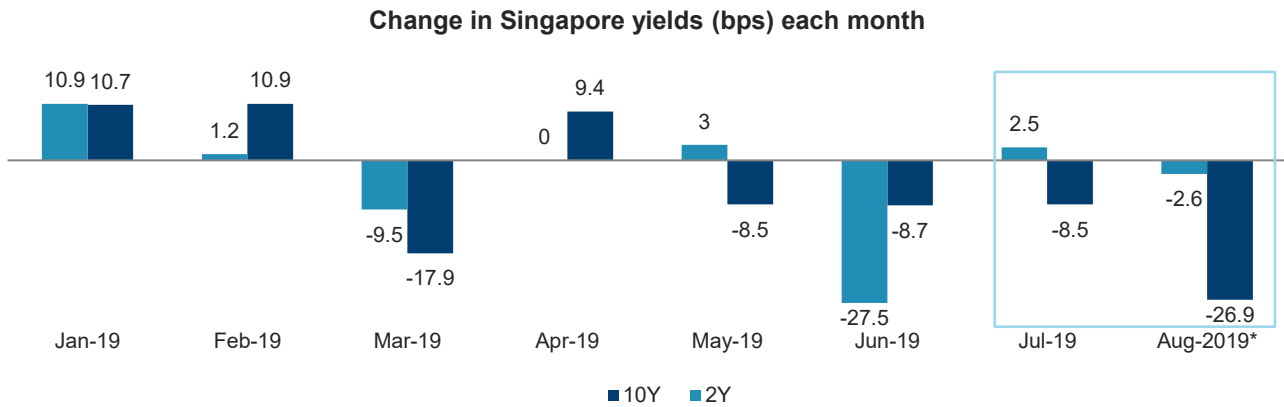
## Yield spreads for Asian countries also shrinking rapidly

The yield spreads between longer and shorter term sovereign debt is shrinking not just in developed markets but even in case of Asian countries. Especially in case of countries with high credit ratings such as Singapore and Australia, the spreads have been narrowing continuously. The pace at which the spreads narrow appears to have increased recently in sync with the global phenomenon of spread compression. The following charts show how since



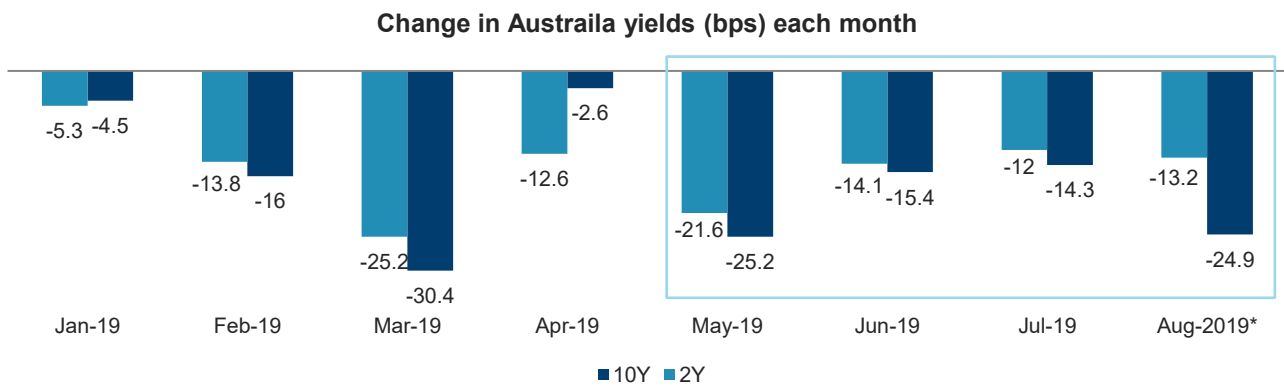
the start of the year, the 10 year yields have generally fallen more than the 2 year yields, for most months. Especially in July and August, the fall in 10 year yields has been more pronounced than in previous months.

**Figure 5: Singapore 10–2-year spread**



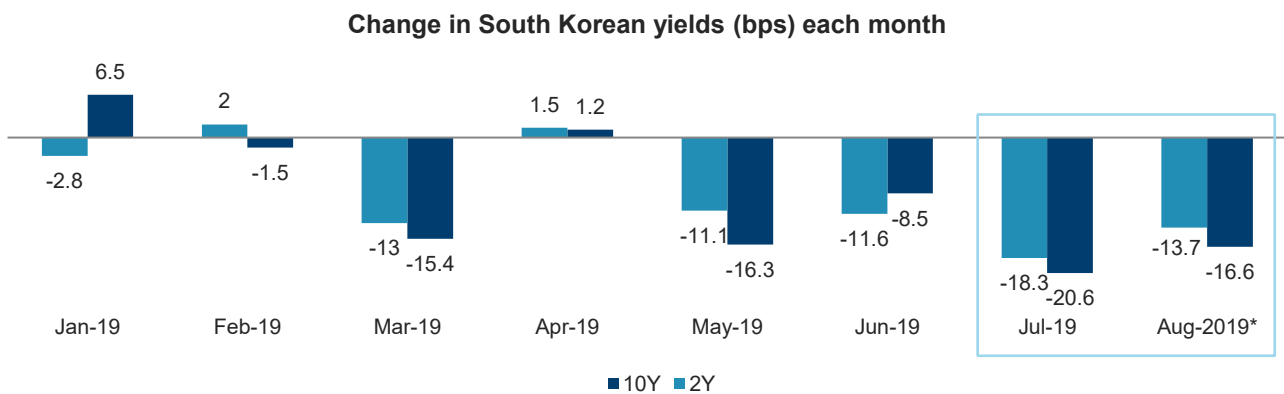
Source: Reuters Eikon; \* - Till August 15, 2019

**Figure 6: Australia 10–2-year spread**



Source: Reuters Eikon; \* - Till August 15, 2019

**Figure 7: South Korea 10–2-year spread**

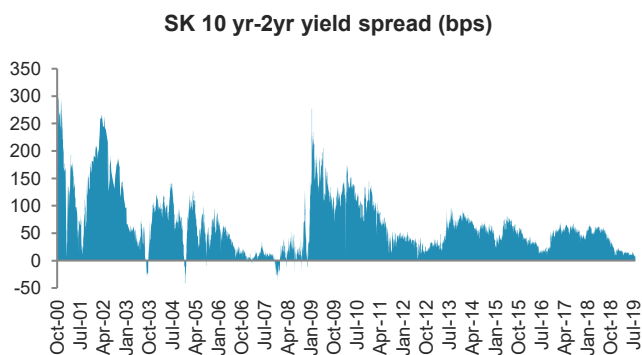


Source: Reuters Eikon; \* - Till August 15, 2019

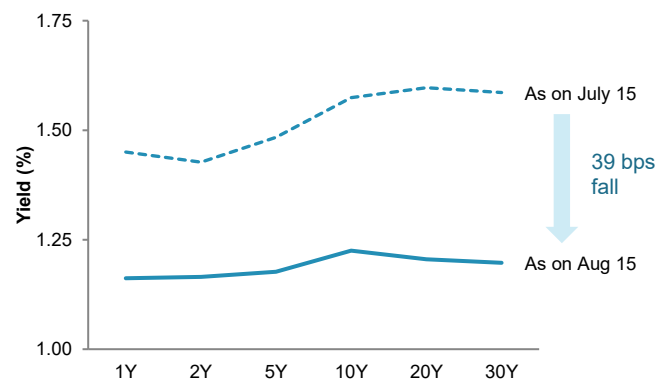
## Asian countries on the brink of yield curve inversion?

Considering the trend of lower yields at the farther end of the yield curve, it may not be too long before the yield curves of select Asian countries also invert. It is pertinent to note that Singapore’s 10-2 year spread turned negative on August 15, the first such inversion since 2006. Already yields at the longer end of the yield curve have started to fall more rapidly compared to the change at the shorter end. Especially countries such as Singapore and Australia recorded a pronounced drop in 30-year yields in the past one month. South Korea’s yield curve has effectively flattened, as seen from Figure 9. Considering the trend in global sovereign bond markets, the hunt for positive yields and willingness to push investment limits, Asian countries with higher credit ratings and more stable currencies, such as Singapore and Australia, will likely attract more fixed income investors, especially at the longer end of the yield curve. For the rest of the countries in Asia, such as India, in spite of the yield spread over developed markets, volatility in currency and higher cost of hedging would mean that effective yields would still be unattractive. Consequently, markets like Singapore, Australia and South Korea may see crowding of investments at the longer end of the yield curve.

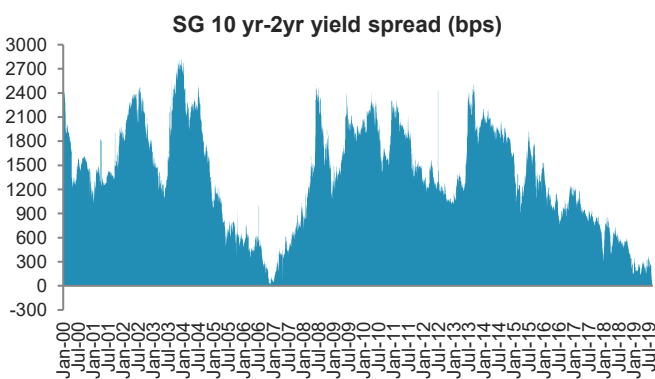
**Figure 8: South Korea 10–2-year spread**



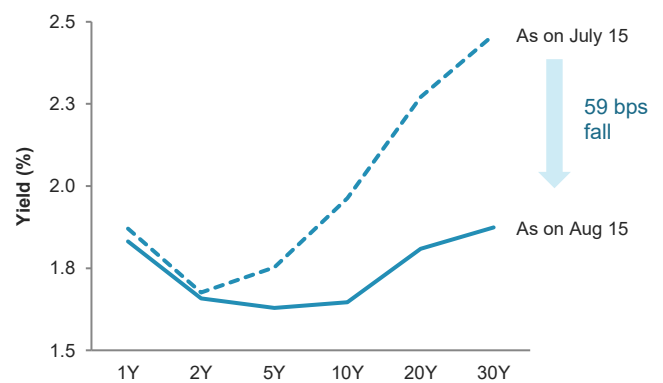
**Figure 9: South Korea yield curve**



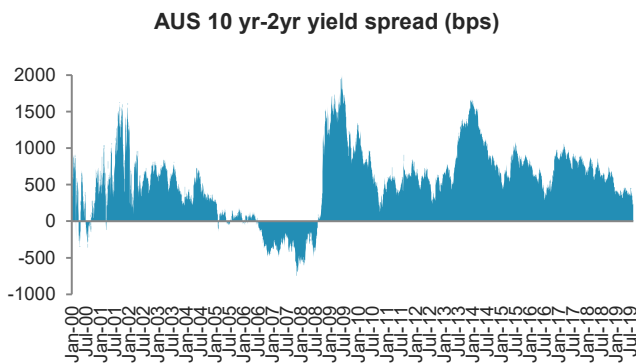
**Figure 10: Singapore 10-2 year spread**



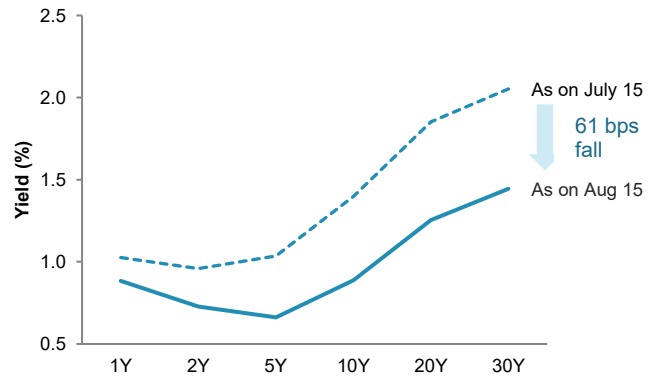
**Figure 11: Singapore yield curve**



**Figure 12: Australia 10-2 year spread**



**Figure 13: Australia yield curve**



Source: Reuters Eikon

### Conclusion

The hunt for yields is pushing fixed income markets to new limits, with the most pronounced movements seen at the longer end of the yield curve. As longer term yields fall, the spread between shorter and longer term yields is narrowing. While the yield curve is monitored more closely in case of the US and its inversion has triggered speculations of a looming recession, the phenomenon of yield curve inversion may be more a result of lowering of premium for long-term yields. As such, there may be more yield curve inversions on the way, not only for developed countries but also for leading Asian countries such as Singapore, South Korea and Australia. The rapid decline in long-term yields over the past one month does indicate that such yield inversions may be sooner than imagined and is causing fixed income investors to be wary, even if it does not portend an immediate recession.

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