

# Asia Strategy

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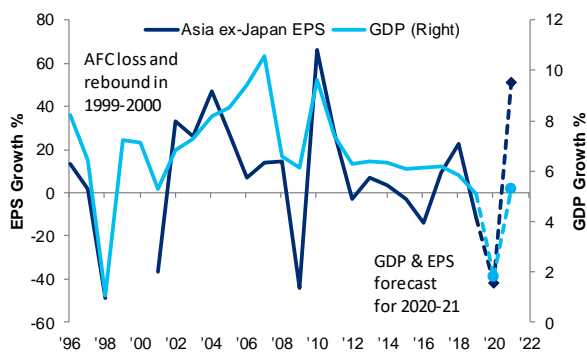
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## The Uneven Road to Recovery

- With unprecedented global policy stimulus, markets have moved to the recovery phase. However, deep declines in economic activity and potential hiccups in the recovery would likely make this a long road to normalization.
- **Asia's divergent virus progress:** Greater China and Korea are recovering, while Japan, India and Singapore may still see still greater impact.
- **Further downward earnings revision likely:** Asian GDP growth in 2020 is likely to hit the lowest since 1998, which would suggest over 40% declines in EPS, followed by strong recovery (**Figure 1**). Though markets have yet to fully factor this in, equities tend to rebound before earnings revisions turn positive (**Figure 2**).
- **Looking beyond the crisis, we see valuations** as most attractive in the Philippines, India, Indonesia, HK, and Singapore, while Thailand and Taiwan look expensive. Sector wise, we like Financials, IT and beaten down consumer industries with good long term prospects, like Macau gaming. Healthcare warrants caution at peak valuations. **We also see Asian credit as having opportunity for further recovery**, following the US example.
- **China's recovery continues despite recent setbacks:** We expect China's recovery to continue gradually in April, but would need the rest of the world to join in to pick up momentum. Chinese equities remain attractive in the long run, but the scope for continued outperformance may be limited in the near term.

**Figure 1: Asia ex-Japan 2020 EPS may fall by over 40%** **Figure 2: Markets tend to rebound before Earnings**



Note: AFC is Asian Financial Crisis. Source: Bloomberg, as of Apr 10, 2020

Source: Bloomberg, Factset, as of Apr 8, 2020

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# The Uneven Road to Recovery

With substantial stimulus, recovery is likely forthcoming. But markets may still need to deal with expected economic damage not yet priced in

Risks of relapse remain in Asia, but are largely manageable

China should lead the way of economic recovery given its largest domestic economy and early response to the virus, followed by Taiwan and Korea

Meanwhile, Japan, India, Singapore and Indonesia could experience additional economic hardship in April

With unprecedented global policy stimulus, markets have moved to the recovery phase of the crisis. This is reasonable given the powerful policy moves to restore liquidity and to plug income shortfalls for large numbers of businesses and households. We are therefore confident that this recession will be both the deepest and shortest. However, deep declines in economic activity and potential hiccups on the path to recovery would likely make this a long road to normalization (see [CIO Strategy Bulletin: Pandemic Investing 102 -Turning the Economy Back On: Expectations and Realities](#)).

In this report, we highlight the varying progress among Asian markets in dealing with the virus. The market may still need to recognize the deep declines in earnings currently not priced in. Beyond this, valuations have become attractive for some equity markets. In fixed income, we see continued improvement, especially in IG credit.

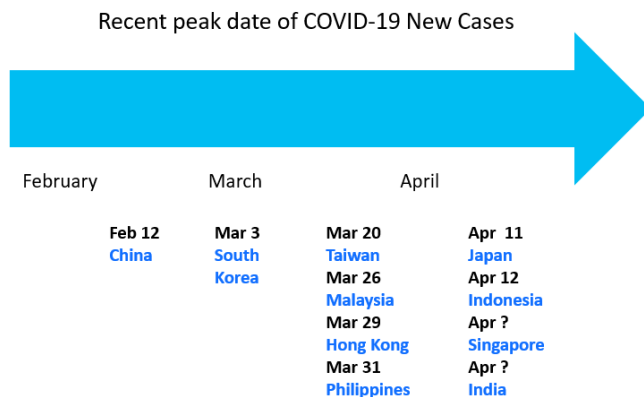
## Divergence in Asia’s Response to COVID-19

As global confirmed cases surpasses 2 million, Asia had also seen a substantial rise in infections. Those who have vigorously responded to the virus earlier, like China, HK and Korea, had to resume some restrictions. Others like India and Singapore had to dramatically change strategy and to impose nationwide lockdown.

Among the early responders, new cases appear to have peaked in mid-Feb to early March (**Figure 3**). Meanwhile, many other governments opted for a wait-and-see approach, attempting to balance public health risks with economic ones. Malaysia was among the first to implement a nationwide lockdown on March 18 and new cases topped on March 23. Singapore implemented lockdown only in April after denying the need for it for two months. In Japan, Prime Minister Abe recently declared a limited state of emergency, continuing basic economic activity including shops and restaurants, while few Japanese employees are working from home.

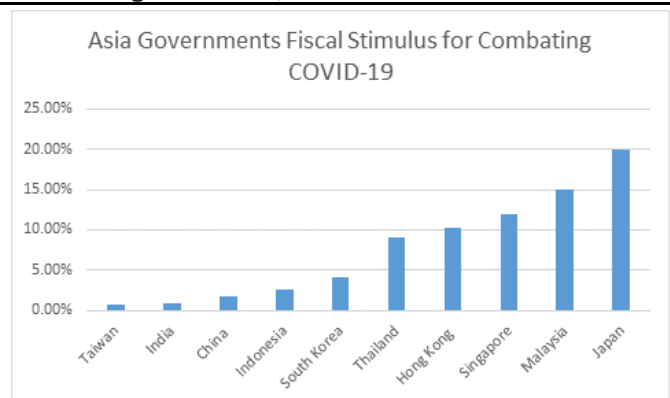
While there are risks of relapse in CH, TW, HK and KR, we believe these are not insurmountable. New cases are again on the decline after a brief upswing. These markets continue to implement movement restrictions and mass testing and tracking. By contrast, Singapore had kept schools open, discouraged people from wearing masks, and did not implement strict social distancing until last week. Japan is similar, while India has trouble implementing its belated lockdown.

**Figure 3: Dates when major Asian markets saw peak new COVID-19 cases**



Source: Worldometer, as of 8 Apr 2020

**Figure 4: Asian governments’ fiscal stimulus for combating COVID-19, as % of GDP**



Source: Bloomberg and Haver Analytics, as of 8 Apr 2020

What we have seen in Asia presaged the experience of Europe and the US. Later introduction of mitigation strategies could be more painful economically. To that end, Asian authorities have responded by announced significant fiscal stimulus programs, ranging from 1.8% to 20% of GDP. Interestingly, for at least the time being, the announced fiscal programs in China and Korea are dramatically smaller, relative to GDP, than that of Singapore and Japan (**Figure 4**).

Domestic demand driven markets like China is better positioned to recover

Given the divergent virus-management strategies employed across Asia, we believe that economies with larger domestic markets will be more resilient than those more dependent on exports (**Figure 5**).

China has the largest “local” economy despite being the world’s factory -- imports and exports combined amount to 35% of China’s GDP, with net exports at 2.3%. Taiwan and Korea are more dependent on trade, but are among the earliest to contain the virus. Their domestic recoveries should be closely behind China’s. Japan’s trade dependency is also low, but due to its slow response to the virus, it is likely to experience significant economic hardship over the coming months.

PMI, trade and credit growth are consistent with China’s recovery progress

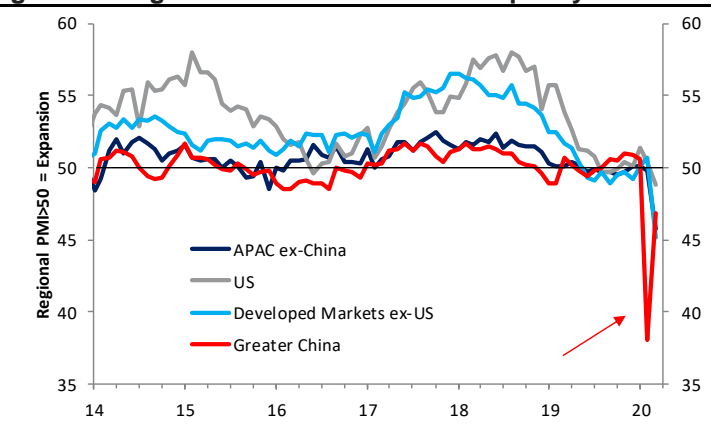
The PMI data (**Figure 6**) is backward looking, but the China data gives us a sense of what is to come for China and other economies as they begin to heal from their selected health strategy. Moreover, other data like exports and imports, as well as credit growth, also significantly beat expectations in March. China’s economic activity is back in expansion, but more so for large enterprises and manufacturing where over 90% of businesses have resumed operations.

We expect China’s recovery to continue to lead the region, but could pick up more momentum when the rest of the world joins in.

**Figure 5: Lower trade shares of GDP suggests lower dependency on international transport resumption**      **Figure 6: PMIs in most parts of the world have not gone through the worst of COVID-19 impact yet**

|               | Total Trade % of GDP | Net Exports % of GDP |
|---------------|----------------------|----------------------|
| Japan         | 35%                  | 0.2%                 |
| China         | 36%                  | 1.1%                 |
| Indonesia     | 36%                  | -0.5%                |
| India         | 41%                  | -2.7%                |
| Asia Ex-Japan | 55%                  | 1.5%                 |
| Philippines   | 62%                  | -12.1%               |
| South Korea   | 78%                  | 2.9%                 |
| Thailand      | 110%                 | 9.2%                 |
| Taiwan        | 117%                 | 10.5%                |
| Malaysia      | 123%                 | 7.6%                 |
| Singapore     | 319%                 | 27.9%                |
| Hong Kong     | 353%                 | 1.7%                 |

Source: Haver Analytics, as of 4Q 2019  
 Note: Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.



Source: Bloomberg, as of Mar 2020  
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## Asian GDP and Earnings declines are not yet priced in

Asia ex-Japan (AxJ) GDP growth in 2020 is likely to fall to the lowest since the Asian Financial Crisis (AFC), followed by a rebound starting in 3Q, but may take until 2022 to reclaim 2019 levels.

Our 1.8% assumption for Asian growth is a sharp fall from 5.1% in 2019, and is expected to rebound to above 5% again by 4Q 2020. Global and developed market GDP forecasts are likely to have even greater volatility. The key issue here is that trade and tourism would take much longer to recover and possible will not reclaim pre-crisis levels.

Sharper earnings downgrade is likely in the coming months to reflect over 40% declines in our 2020 EPS projections, albeit less severe than the AFC

This growth backdrop is consistent with over 40% declines in EPS for the region for this year (**Figure 7**). China is likely to face 30% declines in EPS, which implies larger declines in the smaller and more open economies in the rest of AxJ.

**Figure 7: Regional GDP and EPS forecasts**

|                      | GDP Growth  |            |            | EPS Growth   |             |             |
|----------------------|-------------|------------|------------|--------------|-------------|-------------|
|                      | 2020        | 2021       | 2022       | 2020         | 2021        | 2022        |
| <b>Global</b>        | <b>-3.0</b> | <b>2.8</b> | <b>3.3</b> |              |             |             |
| <b>US</b>            | <b>-4.3</b> | <b>3.6</b> | <b>2.8</b> | <b>-35.0</b> | <b>26.2</b> | <b>20.0</b> |
| <b>Europe</b>        | <b>-8.0</b> | <b>1.5</b> | <b>2.0</b> |              |             |             |
| <b>Asia ex-Japan</b> | <b>1.8</b>  | <b>5.3</b> | <b>5.0</b> | <b>-42.0</b> | <b>51.0</b> | <b>12.0</b> |
| <b>China</b>         | <b>2.0</b>  | <b>5.0</b> | <b>5.0</b> | <b>-30.0</b> | <b>38.0</b> | <b>10.0</b> |

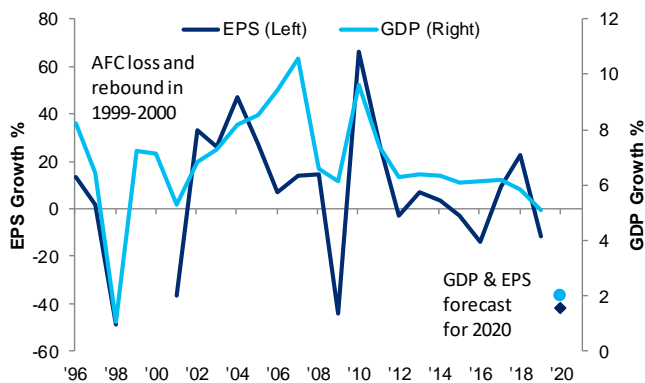
Source: Citi Private Bank Investment Strategy, as of 10 April 2020

This downturn is slightly less severe than the AFC and the Global Financial Crisis (GFC) because it is expected to be deep but short in duration. The AFC caused widespread failures of the financial systems in Asia after a period extraordinary expansion coupled with an inflexible exchange rate system. Five years of deflation followed.

In 1999, AxJ companies recorded a net loss, followed by sharp rebound in 2000, only to enter the busting of the tech bubble (**Figure 8**). After the AFC, it took AxJ until 2005 or seven years to return to the 1997 level of EPS, versus two years after the GFC.

**This time, we expect the earnings decline to be less severe than the AFC because financial systems are in better shape.** Our forecasts would take about two years to return to 2019 levels in 2022. However, bottom-up analyst consensus forecasts remain too high, even after recent downward revisions (**Figure 9**). We suspect sharper downward revisions would come in for Japan, China and the rest of AxJ after more company guidance is provided in April-May.

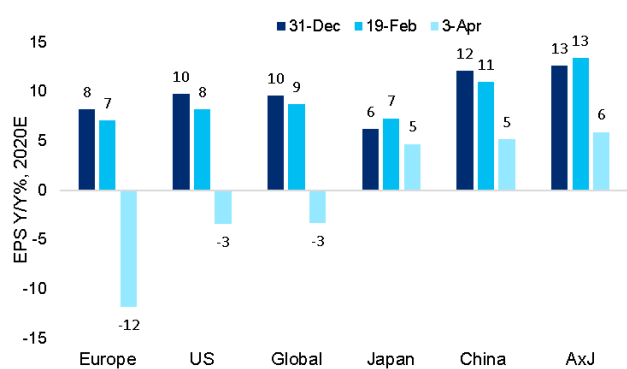
**Figure 8: Asia ex-Japan 2020 Real GDP growth is likely to fall to the lowest since 1998, which implies EPS declines of over 40%**



Source: Bloomberg, as of Apr 10, 2020

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**Figure 9: Consensus analyst earnings forecasts have come down some, but still have far to go, with Asia likely further behind than US and Europe**



Source: MSCI, as of Apr 3, 2020

## Impact on different Markets, Sectors, and Fixed Income

Share prices could rebound before earnings revisions turn positive

History suggests share prices may bottom before the earnings do. We're looking for an inflection point where forecast cuts slow down. Earnings revisions amounted to -11.6% over the three months through March, which coincided with -16.4% returns (Figure 10).

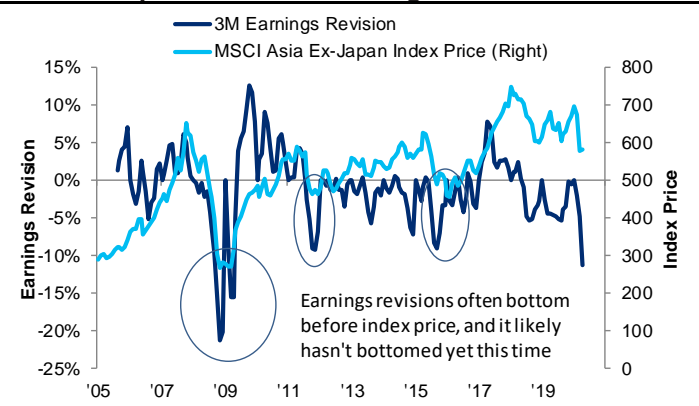
We expect revisions to accelerate in April, which implies still some downside risks to MSCI AxJ index. However, index prices could rebound before earnings revisions turn positive. When revisions become less negative, that is typically when market rebound can begin (Figure 11).

**Figure 10: Earnings revisions are directly related to price performance for MSCI AxJ**



Source: Bloomberg, as of Apr 10, 2020

**Figure 11: Markets rebound before earnings revisions turn positive, but would require an inflection point to slower downgrades**



Source: Bloomberg, as of Apr 10, 2020

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Valuations in PH, ID, IN, HK, SG and China imply double digit 12-month returns

We also look at where Asian markets are in terms of valuations and what these imply for forward returns. We rank current forward PE over its 15-yr history across markets and sectors, then use historical ranking to gauge where 12 months forward returns might be. **Philippines appears to be the cheapest, while Indonesia, India, HK, Singapore and China also imply double digit 12-month returns (Figure 12).** Taiwan and Thailand take the helm on the expensive side.

Sector wise, Financials, Industrials and Utilities rank the lowest in terms of forward PE among the sectors' own history (Figure 13). These sectors are likely to benefit the most from eventual recovery, but lack strong long term prospects.

IT, Telecom and Consumer Discretionary, such as Macau gaming are our favored sectors

In 2015 and 2018, the biggest and most favoured IT firms were moved to Consumer Discretionary and Telecom Services, distorting historical valuation measures. We see opportunities in all three sectors. For example, Macau gaming industry has the service capacity intact and is likely to see a strong rebound in visitors as soon as travel bans are lifted. Long term growth prospects remain attractive, while shares have only recovered small portion, in recent weeks' rally, of the 40-50% lost in the prior two months.

Healthcare has reached record high valuations, which would demand caution despite good growth

Healthcare, on the other hand, is a net beneficiary of this public health crisis and has not seen meaningful earnings impairment, while also has strong demand growth prospects. But its valuations are at a record peak of 36.6x forward PE for the MSCI AxJ Healthcare Index. Chinese Healthcare is a bit lower at 30x, but still is the highest since early 2000 before China even had a fully fledged listed Healthcare sector. This should spell caution for investors.



**Figure 12: Current valuations are historically lowest for ID, PH, IN, HK and SG, implying the highest potential returns, while TW appear at risk**

|               | Current Forward PE | PE % Rank over 15 years | Implied 12m returns |
|---------------|--------------------|-------------------------|---------------------|
| Indonesia     | 12.1               | 12%                     | 36%                 |
| Philippines   | 11.9               | 3%                      | 30%                 |
| India         | 15.1               | 20%                     | 24%                 |
| Hong Kong     | 15.1               | 22%                     | 18%                 |
| Singapore     | 11.7               | 6%                      | 15%                 |
| China         | 12.5               | 58%                     | 11%                 |
| Japan         | 13.0               | 13%                     | 9%                  |
| Malaysia      | 15.6               | 40%                     | 8%                  |
| Asia ex-Japan | 13.1               | 59%                     | 6%                  |
| Thailand      | 14.8               | 68%                     | 6%                  |
| Taiwan        | 16.4               | 96%                     | -8%                 |

Source: Bloomberg, as of Apr 10, 2020

**Figure 13: Financials, Industrials and Utilities are most cheaply valued from a 12-month return perspective. Healthcare is the most expensive. IT, CD and TS data are distorted**

|                     | Current Forward PE | PE % Rank over 15 years | Implied 12m returns |
|---------------------|--------------------|-------------------------|---------------------|
| Financials          | 8.1                | 0%                      | 15%                 |
| Industrials         | 10.8               | 5%                      | 14%                 |
| IT                  | 15.0               | 64%                     | 13%                 |
| Utilities           | 12.8               | 21%                     | 6%                  |
| Materials           | 12.9               | 56%                     | 6%                  |
| Asia ex-Japan       | 13.1               | 59%                     | 6%                  |
| Consumer Staples    | 21.7               | 58%                     | 5%                  |
| Energy              | 12.1               | 67%                     | 3%                  |
| Cons. Discretionary | 21.0               | 98%                     | -4%                 |
| Healthcare          | 38.8               | 100%                    | -9%                 |
| Telecom Services    | 22.1               | 92%                     | -11%                |

Source: Bloomberg, as of Apr 10, 2020

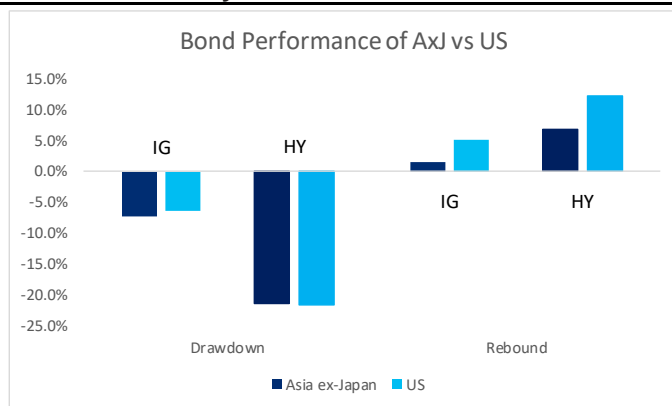
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Asian IG has more to catch up with the US peers once markets gradually restore normalization

On the fixed income side, Asian bonds have rebounded from the March lows, as liquidity improved in the global bond market. Asian IG Index had seen a 7% correction in value, similar to that of the US IG from peak to trough. But since then, Asian IG recovery only amounted to 1.6%, while the US gained 5.1%. Similarly, Asian high yield lost 21% in the selloff, at par with the 22% in US high yield. But the recovery had only brought 7% to Asian HY, while US HY were 12% higher (Figure 14).

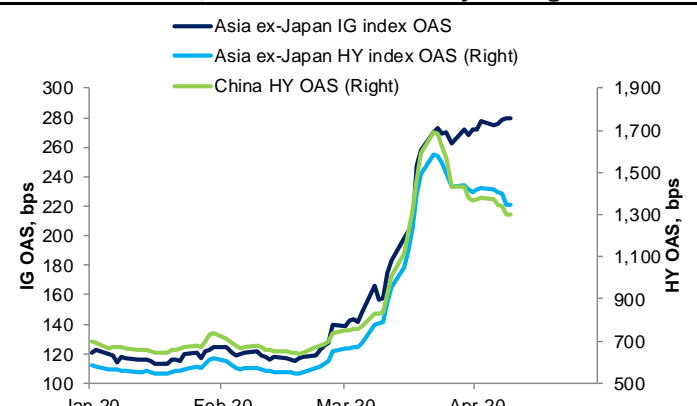
**While Fed money will clearly help US markets first, we believe this performance gap will narrow as Asian bond markets are also restored.** For example, Asian IG gains from the March lows had purely been driven by lower risk-free rates, while spreads actually widened during the risk rally in recent weeks (Figure 15). We expect this anomaly to close when markets restore normal function, and Asian IG should perform strongly. Both IG and HY spreads are at the widest since 2009.

**Figure 14: Asian bonds have recovered some since the March lows, but remain well below the pace of US bond recovery**



Note: Drawdown periods vary for IG and HY  
Source: Bloomberg, as of 10 Apr 2020

**Figure 15: IG recovery had been purely driven by lower rates, while spreads widened. HY spreads have narrowed, but remain near 11-year highs**



Note: Above indices refer to only USD denominated bonds.  
Source: Citi Velocity, as of 10 Apr 2020

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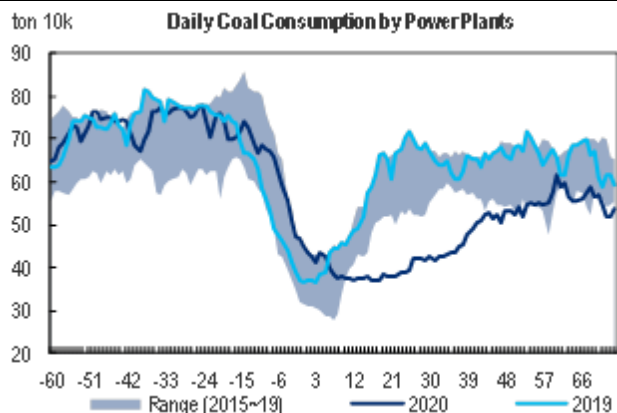
## China's Resilience and Risks

The ability for Chinese economy and equities to extend their outperformance is partly dependent on how soon the rest of the world manages to contain the virus and restore the social orders

Once China acknowledged the nature and danger of the virus, its response was strong and deep. It completely locked down Wuhan and surrounding counties on Jan 23 and built multiple field hospitals within weeks. Nationwide, it cut off non-essential transportation across cities and provinces, and implemented strict social distancing policies strongly enforced by the police, the military and neighborhood watchers. Economic activity in China virtually halted in February.

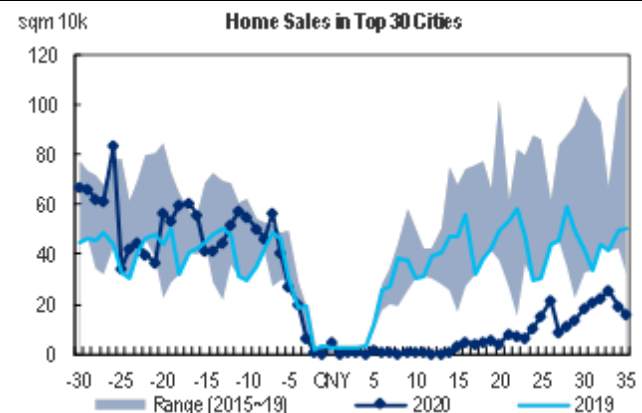
China recognizes the challenges the virus continues to present. Extensive testing capacity has been built nationally to track the virus. It also stopped all foreign visitors from entering the country amidst renewed concerns for imported cases and secondary infections. Even as Wuhan re-opened on April 8 after a 76-day lockdown, there remain significant local mitigation efforts.

**Figure 16: Coal consumption for power generation remains weak**



Source: Wind and Citi Research, as of 7 Apr 2020

**Figure 17: Daily home sales in top 30 cities have fallen after a tepid March selling season**



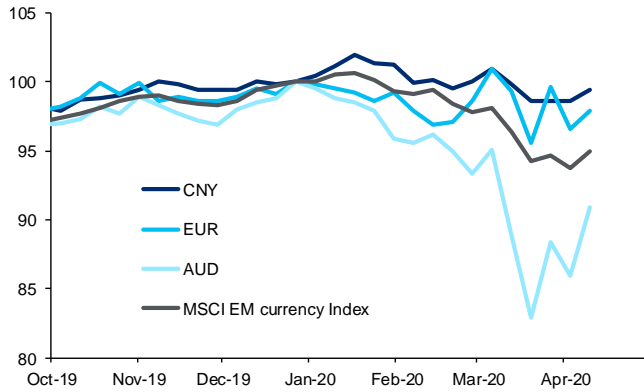
Source: Wind and Citi Research, as of 7 Apr 2020

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As noted below, daily China data trackers such as power coal consumption (**Figure 16**) and home sales (**Figure 17**) show an uneven recovery. Power consumption is rising, but is nowhere near 2019 levels. Similarly, even after a period of significant home sale promotions that are typical for March, sales remain lackluster. Weaker showings for both indices are possible in April.

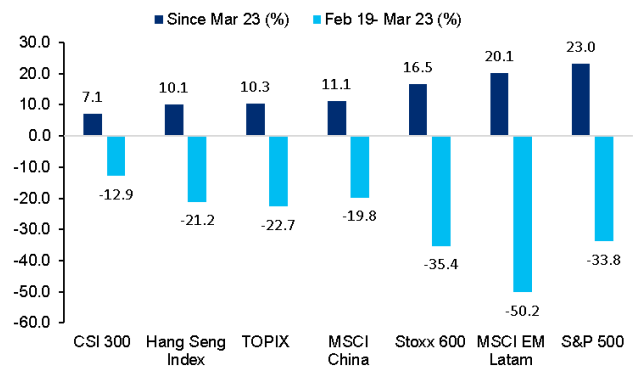
It is interesting to see how the Chinese currency and equity markets performed relative to their Western counterparts. As the USD 8.5% surged during the “risk off” period in March, CNY depreciated just 2.5% (**Figure 18**). Chinese equities have similarly reacted less negatively as the pandemic has unfolded with the CSI 300 A-shares index losing 9% since late February. That said, Chinese equities underperformed relative to the US rally since late March. The lack of correlation between the markets presents an interesting data point for investors, as the world’s two largest economies can provide diversification benefits (**Figure 19**).

**Figure 18: RMB resilience during the March selloff and USD rally**



Source: Bloomberg, 2019 Jan as 100, as of Apr 8, 2020

**Figure 19: Chinese equity performance before and after Fed interventions**



Source: Bloomberg, Factset, as of Apr 8, 2020

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The ability for Chinese equities to maintain and extend their outperformance is, in our view, dependent on positive health outcomes across the globe. In the event that China can contain and manage its economy through the pandemic the rest of the world is unable to do so, China will have just modest growth on a relative basis. However, if China AND the rest of the world can move to a post-COVID economy, the incremental benefits to China in the form of greater export demand will allow growth to accelerate from its lows. Only if China is unable to manage COVID and unable to reopen domestic and international travel and shipping routes over the next six months do we see equities in China suffering.

**Geopolitical risks for China are rising after the COVID-19 crisis and recovery.** In recent years and especially in the fight against COVID-19, China had benefited from the isolationist “America First” policies of the Trump administration. Its “Silk Road Initiative” laid out an aggressive plan to build trade across a wide swath of the world aims to further increase China’s influence through trade, particularly with Europe, as well as Asia and Africa (**Figure 20**).

But this is coming at a time when globalization is coming under tremendous doubt. China’s early handling of the virus faces increased skepticism. The impact of border closures on the global supply chain is severe. To the extent companies can accelerate the broadening of their supply chains beyond China, they are likely to do so. Many countries are concerned that dependence on China for supply chain has become a national security risk. These could be the case regardless of who sits in the Oval Office next year.



Figure 20: Map of China's Belt & Road Initiative



Source: yidaiyilu.gov.cn, as of 10 April 2020

## Appendix 1: Asia Pacific portfolio allocations

### Core Positions

The Citi Private Bank Global Investment Committee left our asset allocations unchanged at our March meeting, with Global Equities neutral, Fixed Income underweight by 2.0%, and Gold 2.5% overweight. (This leaves cash 0.5% underweight, and US Treasuries overweight within Fixed Income). While the immediate economic outlook is bleak, we see increasing signs that the acute crisis phase will be relatively short. We are beginning to see medium-term (12-18 month) market opportunities outweigh risks, and our asset allocation framework is taking the earliest steps to take advantage.

We expect the largest decline in global GDP on record in the second quarter 2020. Equity and credit markets have fallen hard, but have not clearly overshot given the severity of the economic contraction catalyzed by Covid-19. However, given the unusual driver of the decline, and the very swift and strong macro policy response, it may soon be time to add to our risk allocations in a targeted way. We recommend investors to rebalance to their target allocation, buying equities if they are now underrepresented in balanced portfolios after the sharp drop<sup>1</sup>.

In 1Q, it appears China's economy shrank about 5% from its year-earlier period, or roughly 30% annualized rate of decline. China's gradual re-emergence from its shutdown offers glimmers of hope as to what could be a short contraction for the world economy in 1H. However, it seems plausible that 25% of US and European workers will be idle in coming months, suggesting an even larger decline in GDP than in China.

Credit markets functioned poorly following an oil production dispute between OPEC and Russia. The Federal Reserve announced "credit easing" steps of an extreme nature to restore market functioning. These steps are gaining traction in a wide range of credit markets.

Within equities and credit, certain regions and industries (such as healthcare) outperformed others for explainable reasons. Those most impacted, such as travel and hospitality, remain suspect in our view as government assistance may require recapitalization, diluting current holders. The most "cash rich" firms have outperformed even within industry sectors. While this limits the extent of their future rebound, we continue to favor quality balance sheets over recovery potential at this stage.

The Covid-19 health crisis seems poised for greater impact ahead. While authorities race to add healthcare capacity, the rapid growth rate of the virus suggests it is pre-mature to assume economically disruptive public health measures have seen a peak. This argues against taking high levels of immediate risk.

On the other side, the discrete nature of the health pandemic and swiftly building macroeconomic policy response argues for optimism beyond the immediate period. Rapid growth rates from depressed levels can be expected if policymakers succeed in bridging over the period of collapsed demand. If policymakers are successful in compressing a major economic collapse into a relatively short period, we would continue to expect high levels of financial market volatility for the foreseeable future. As noted elsewhere, returns are systematically augmented by adding to positions following large market declines.

In government bond markets, we expect long-term yields will ultimately rise relative to central bank policy rates, but not in a linear fashion. We continue to see strong benefits in keeping some level of portfolio exposure to the largest and strongest sovereign bond markets. In time, we believe the US Fed's dramatic policy changes will ultimately succeed in weakening the US dollar. We aim to stay globally diversified and will add to emerging markets allocations in the recovery period ahead.

<sup>1</sup> Note on rebalancing: Even with the recent market rebound, asset price movements would have altered a simple 60/40 global equity/global bond portfolio's allocations in the year-to-date. The significant drop in global equities means that many portfolios have a lower allocation to equities than their strategic allocation target and consequently may have breached the asset allocation ranges of investment policy guidelines. The GIC recommends that clients consider rebalancing back to their target allocations. While rebalancing has the potential to improve long-term returns, it is foremost an important risk control tool in a disciplined portfolio management process.

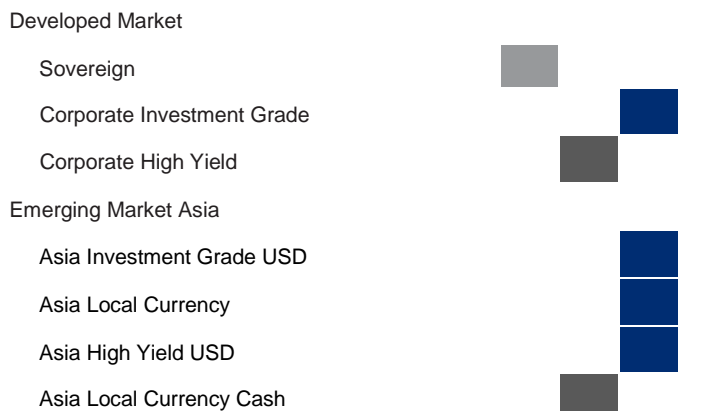
### Asset Classes



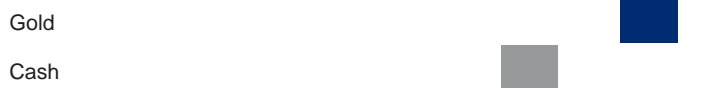
#### Core Equities



#### Core Fixed Income



#### Core Commodities



Source: Citi Private Bank showing Office of the Chief Investment Strategist (OCIS)'s asset allocation for Asia as of last Global Investment Committee, March 26, 2020. Note: -2=very underweight; -1=underweight; 0=neutral; 1=overweight; 2=very overweight. All allocations are subject to change at discretion of the GIC of Citi Private Bank.

## Appendix 2: Asia Regional Bias Asset Allocations – Risk Level 3

This section below shows the GIC's asset allocation of a Asia regional bias global USD portfolio for a Risk Level 3 investor. The Strategic asset allocation employs CPB's proprietary Adaptive Valuation Strategies (AVS) methodology. The GIC adds Tactical under- and over-weights relative to the strategic allocations based on near-term opportunities and views, with the aim of achieving superior returns in the 12- to 18-month horizon.

Risk level 3 is designed for investors with a blended objective who require a mix of assets and seek a balance between investments that offer income and those positioned for a potentially higher return on investment. Risk level 3 may be appropriate for investors willing to subject their portfolio to additional risk for potential growth in addition to a level of income reflective of his/her stated risk tolerance.

|                         | Strategic    | Tactical     | Active      |                       |              |              |              |  |
|-------------------------|--------------|--------------|-------------|-----------------------|--------------|--------------|--------------|--|
| <b>Equities</b>         | <b>42.0%</b> | <b>42.0%</b> | <b>0.0%</b> | <b>Fixed income</b>   | <b>44.0%</b> | <b>42.0%</b> | <b>-2.0%</b> |  |
| <b>Developed</b>        | <b>25.6%</b> | <b>25.6%</b> | <b>0.0%</b> | <b>Dev Inv Grade</b>  | <b>24.6%</b> | <b>21.9%</b> | <b>-2.7%</b> |  |
| <b>Dev. Large</b>       | <b>22.2%</b> | <b>22.2%</b> | <b>0.0%</b> | <b>Dev. Govt</b>      | <b>19.4%</b> | <b>16.0%</b> | <b>-3.4%</b> |  |
| <b>North America</b>    | <b>12.8%</b> | <b>12.8%</b> | <b>0.0%</b> | <b>North America</b>  | <b>10.1%</b> | <b>14.3%</b> | <b>4.2%</b>  |  |
| US                      | 12.1%        | 12.1%        | 0.0%        | US                    | 9.3%         | 13.6%        | 4.3%         |  |
| Canada                  | 0.7%         | 0.7%         | 0.0%        | <b>Europe</b>         | <b>5.5%</b>  | <b>0.6%</b>  | <b>-4.9%</b> |  |
| <b>Europe</b>           | <b>3.8%</b>  | <b>3.8%</b>  | <b>0.0%</b> | UK                    | 0.9%         | 0.2%         | -0.8%        |  |
| UK                      | 1.0%         | 1.0%         | 0.0%        | Cont. Europe          | 4.5%         | 0.4%         | -4.1%        |  |
| Cont. Europe            | 2.4%         | 2.4%         | 0.0%        | <b>Asia x Japan</b>   | <b>1.2%</b>  | <b>1.0%</b>  | <b>-0.2%</b> |  |
| <b>Asia x Japan</b>     | <b>3.9%</b>  | <b>3.9%</b>  | <b>0.0%</b> | Japan                 | <b>2.5%</b>  | <b>0.1%</b>  | <b>-2.4%</b> |  |
| Hong Kong               | 1.5%         | 1.5%         | 0.0%        | <b>Supranational</b>  | <b>0.0%</b>  | <b>0.0%</b>  | <b>0.0%</b>  |  |
| Singapore               | 0.5%         | 0.5%         | 0.0%        | <b>Dev. Corp IG</b>   | <b>5.2%</b>  | <b>5.9%</b>  | <b>0.7%</b>  |  |
| Australia               | 1.8%         | 1.8%         | 0.0%        | <b>North America</b>  | <b>3.2%</b>  | <b>4.4%</b>  | <b>1.2%</b>  |  |
| <b>Japan</b>            | <b>1.7%</b>  | <b>1.7%</b>  | <b>0.0%</b> | US                    | 3.0%         | 4.2%         | 1.2%         |  |
| <b>Dev. Small/Mid</b>   | <b>3.5%</b>  | <b>3.5%</b>  | <b>0.0%</b> | <b>Europe</b>         | <b>1.7%</b>  | <b>1.2%</b>  | <b>-0.5%</b> |  |
| <b>North America</b>    | <b>1.7%</b>  | <b>1.7%</b>  | <b>0.0%</b> | UK                    | 0.3%         | 0.1%         | -0.2%        |  |
| United States           | 1.6%         | 1.6%         | 0.0%        | Eurozone              | 1.4%         | 1.1%         | -0.3%        |  |
| <b>Europe</b>           | <b>0.8%</b>  | <b>0.8%</b>  | <b>0.0%</b> | <b>Asia x Japan</b>   | <b>0.3%</b>  | <b>0.3%</b>  | <b>0.0%</b>  |  |
| <b>Asia x Japan</b>     | <b>0.6%</b>  | <b>0.6%</b>  | <b>0.0%</b> | Japan                 | <b>0.0%</b>  | <b>0.0%</b>  | <b>0.0%</b>  |  |
| <b>Japan</b>            | <b>0.4%</b>  | <b>0.4%</b>  | <b>0.0%</b> | <b>Dev. Hi-Yld</b>    | <b>0.0%</b>  | <b>0.1%</b>  | <b>0.1%</b>  |  |
| <b>Emerging</b>         | <b>16.4%</b> | <b>16.4%</b> | <b>0.0%</b> | <b>US</b>             | <b>0.0%</b>  | <b>0.1%</b>  | <b>0.1%</b>  |  |
| <b>EM Asia</b>          | <b>15.7%</b> | <b>15.7%</b> | <b>0.0%</b> | <b>Europe</b>         | <b>0.0%</b>  | <b>0.0%</b>  | <b>0.0%</b>  |  |
| China                   | 8.9%         | 8.9%         | 0.0%        | <b>Emerging</b>       | <b>19.4%</b> | <b>20.0%</b> | <b>0.6%</b>  |  |
| India                   | 1.8%         | 1.8%         | 0.0%        | <b>EM Asia</b>        | <b>19.0%</b> | <b>19.7%</b> | <b>0.7%</b>  |  |
| Indonesia               | 0.3%         | 0.3%         | 0.0%        | Local Currency        | 9.5%         | 9.8%         | 0.3%         |  |
| Korea                   | 1.8%         | 1.8%         | 0.0%        | China                 | 4.2%         | 4.4%         | 0.2%         |  |
| Malaysia                | 0.3%         | 0.3%         | 0.0%        | India                 | 2.2%         | 2.2%         | 0.1%         |  |
| Philippines             | 0.2%         | 0.2%         | 0.0%        | Indonesia             | 0.5%         | 0.5%         | 0.0%         |  |
| Taiwan                  | 1.9%         | 1.9%         | 0.0%        | Malaysia              | 0.4%         | 0.4%         | 0.0%         |  |
| Thailand                | 0.6%         | 0.6%         | 0.0%        | Philippines           | 0.2%         | 0.2%         | 0.0%         |  |
| <b>EM EMEA</b>          | <b>0.3%</b>  | <b>0.3%</b>  | <b>0.0%</b> | South Korea           | 1.5%         | 1.6%         | 0.0%         |  |
| Russia                  | 0.1%         | 0.1%         | 0.0%        | Thailand              | 0.5%         | 0.5%         | 0.0%         |  |
| South Africa            | 0.1%         | 0.1%         | 0.0%        | Hard Currency         | 9.5%         | 9.9%         | 0.4%         |  |
| Turkey                  | 0.0%         | 0.0%         | 0.0%        | <b>EM EMEA</b>        | <b>0.2%</b>  | <b>0.0%</b>  | <b>-0.2%</b> |  |
| <b>EM Latin America</b> | <b>0.3%</b>  | <b>0.3%</b>  | <b>0.0%</b> | <b>EM LatAm</b>       | <b>0.2%</b>  | <b>0.3%</b>  | <b>0.0%</b>  |  |
| Brazil                  | 0.2%         | 0.2%         | 0.0%        | <b>Cash</b>           | <b>2.0%</b>  | <b>1.5%</b>  | <b>-0.5%</b> |  |
| Mexico                  | 0.1%         | 0.1%         | 0.0%        | <b>Hedge Funds</b>    | <b>12.0%</b> | <b>12.0%</b> | <b>0.0%</b>  |  |
|                         |              |              |             | <b>Commodities</b>    | <b>0.0%</b>  | <b>2.5%</b>  | <b>2.5%</b>  |  |
|                         |              |              |             | <b>Private Equity</b> | <b>0.0%</b>  | <b>0.0%</b>  | <b>0.0%</b>  |  |
|                         |              |              |             | <b>Real Estate</b>    | <b>0.0%</b>  | <b>0.0%</b>  | <b>0.0%</b>  |  |

Active = the difference between tactical and strategic allocations. Minor differences may result due to rounding.

Source: Citi Private Bank showing asset allocation as of last Global Investment Committee (GIC) meeting on March 26, 2020. All allocations are subject to change at discretion of the GIC of Citi Private Bank.

## Glossary

| Terms | Definition                        |
|-------|-----------------------------------|
| AxJ   | Asia ex-Japan                     |
| AFC   | Asian Financial Crisis (1998-99)  |
| GFC   | Global Financial Crisis (2008-09) |

## Asset allocation definitions

| Asset classes   | Benchmarked against  |
|-----------------|--|
| Global equities | MSCI All Country World Index, which represents 48 developed and emerging equity markets. Index components are weighted by market capitalization.   |
| Global bonds    | Barclays Capital Multiverse (Hedged) Index, which contains the government -related portion of the Multiverse Index, and accounts for approximately 14% of the larger index.  |
| Hedge funds     | HFRX Global Hedge Fund Index, which is designed to be representative of the overall composition of the hedge fund universe. It comprises all eligible hedge fund strategies; including but not limited to convertible arbitrage, distressed securities, equity hedge, equity market neutral, event driven, macro, merger arbitrage and relative value arbitrage. The strategies are asset-weighted based on the distribution of assets in the hedge fund industry. |
| Commodities     | Dow Jones-UBS Commodity Index, which is composed of futures contracts on physical commodities traded on US exchanges, with the exception of aluminum, nickel and zinc, which trade on the London Metal Exchange (LME). The major commodity sectors are represented including energy, petroleum, precious metals, industrial metals, grains, livestock, softs, agriculture and ex-energy.   |
| Cash            | Three-month LIBOR, which is the interest rates that banks charge each other in the international inter -bank market for three-month loans (usually denominated in Eurodollars).  |

| Equities                   |  |
|----------------------------|--|
| Developed market large cap | MSCI World Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure the equity market performance of the large cap stocks in 23 developed markets. Large cap is defined as stocks representing roughly 70% of each market's capitalization.                                   |
| US                         | Standard & Poor's 500 Index, which is a capitalization -weighted index that includes a representative sample of 500 leading companies in leading industries of the US economy. Although the S&P 500 focuses on the large cap segment of the market, with over 80% coverage of US equities, it is also an ideal proxy for the total market. |
| Europe ex UK               | MSCI Europe ex UK Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure large cap stock performance in each of Europe's developed markets, except for the UK.  |
| STOXX 600                  | The STOXX Europe 600 Index has a fixed number of 600 components, representing large, mid and small capitalization companies across 18 countries of the European region.  |
| Japan                      | MSCI Japan Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure large cap stock performance in Japan.   |
| Asia Pacific ex Japan      | MSCI Asia Pacific ex Japan Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure the performance of large cap stocks in Australia, Hong Kong, New Zealand and Singapore.   |
| China & HK                 | The MSCI China Index is a free-float weighted equity index, representing Chinese companies listed in Hong Kong, as well as American Depository Receipts listed in the US. MSCI HK Index is a free-float weighted equity index, representing HK companies listed in HK.   |
| Emerging market            | MSCI Emerging Markets Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure equity market performance of 22 emerging markets.  |

## Asset allocation definitions

| Bonds   |   |
|---|---|
| Developed sovereign   | Citi World Government Bond Index (WGBI), which consists of the major global investment grade government bond markets and is composed of sovereign debt, denominated in the domestic currency. To join the WGBI, the market must satisfy size, credit and barriers-to-entry requirements. In order to ensure that the WGBI remains an investment grade benchmark, a minimum credit quality of BBB-/Baa3 by either S&P or Moody's is imposed. The index is rebalanced monthly.        |
| Emerging sovereign  | Citi Emerging Market Sovereign Bond Index (ESBI), which includes Brady bonds and US dollar -denominated emerging market sovereign debt issued in the global, Yankee and Eurodollar markets, excluding loans. It is composed of debt in Africa, Asia, Europe and Latin America. We classify an emerging market as a sovereign with a maximum foreign debt rating of BBB+/Baa1 by S&P or Moody's. Defaulted issues are excluded.  |
| Supranationals  | Citi World Broad Investment Grade Index (WBIG)—Government Related, which is a subsector of the WBIG. The index includes fixed rate investment grade agency, supranational and regional government debt, denominated in the domestic currency. The index is rebalanced monthly.  |
| Corporate investment grade  | Citi World Broad Investment Grade Index (WBIG)—Corporate, which is a subsector of the WBIG. The index includes fixed rate global investment grade corporate debt within the finance, industrial and utility sectors, denominated in the domestic currency. The index is rebalanced monthly.   |
| Corporate high yield  | Bloomberg Barclays Global High Yield Corporate Index. Provides a broad-based measure of the global high yield fixed income markets. It is also a component of the Multiverse Index and the Global Aggregate Index.  |
| Securitized   | Citi World Broad Investment Grade Index (WBIG)—Securitized, which is a subsector of the WBIG. The index includes global investment grade collateralized debt denominated in the domestic currency, including mortgage -backed securities, covered bonds (Pfandbriefe) and asset -backed securities. The index is rebalanced monthly.  |
| Indices   |   |
| CFETS RMB Basket Index  | The China Foreign Exchange Trade System (CFETS) RMB currency basket measures the RMB versus foreign exchange currency pairs listed on CFETS. This index refers to the currency basket accepted by CFETS and the 13 currencies which make up the basket were selected based upon international trade-weights with adjustment of re-export trade factors.   |
| DXY Dollar Index  | The U.S. Dollar Index (USDIX) indicates the general international value of the USD. The USDIX does this by averaging the exchange rates between the USD and major world currencies. The ICE US computes this by using the rates supplied by some 500 banks.   |
| ADXY Index / Asian Currency Index                                   | This Bloomberg JPMorgan Asia Dollar Index is a trade and liquidity weighted index of 10 EM Asian currencies' exchange rate versus the US dollar.  |
| Bloomberg Barclays Multiverse Total Return Index                    | The Multiverse Index provides a broad-based measure of the global fixed-income bond market. The index represents the union of the Global Aggregate Index and the Global High-Yield Index and captures investment grade and high yield securities in all eligible currencies.  |
| Bloomberg Barclays Asian-Pacific ex-Japan local currency bond index | The Bloomberg Barclays Asian-Pacific Non-Japan Total Return Index Value Unhedged USD is a market capitalisation weighted index and measures the performance of local currency denominated government-related and corporate bonds of the Asia ex-Japan region.   |
| iBoxx Asian US dollar Bond Index                                    | Markit is a global index provider which is involved in designing, administering and calculating this index that covers USD segments of Asian fixed income markets.  |
| CRB Industrial Commodities Price Index                              | A Thomson Reuters/Core Commodity Excess Return Index which uses an arithmetic average of commodity futures prices with monthly rebalancing.   |
| CRB Industrial Metals Index   | This data represents Commodity Research Bureau BLS Spot Indices (1967=100). The metals sub-index includes aluminum, copper, gold, iron ore, nickel, silver and steel rebar.   |
| MSCI Asia ex-Japan Index  | The MSCI Asia ex-Japan Index captures large- and mid-cap representation across 2 of 3 Developed Market countries (excluding Japan) and 9 Emerging Market countries in Asia. With 955 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. DM countries in the index include: Hong Kong and Singapore. EM countries include: China, India, Indonesia, Korea, Malaysia, Pakistan, the Philippines, Taiwan and Thailand. |



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**Bond rating equivalence**

Alpha and/or numeric symbols used to give indications of relative credit quality. In the municipal market, these designations are published by the rating services. Internal ratings are also used by other market participants to indicate credit quality.

| Bond credit quality ratings                         | Rating agencies      |                                  |                            |
|---|----------------------|----------------------------------|----------------------------|
|   | Moody's <sup>1</sup> | Standard and Poor's <sup>2</sup> | Fitch Ratings <sup>2</sup> |
| <b>Investment Grade</b>                             |                      |                                  |                            |
| Highest quality                                     | Aaa                  | AAA                              | AAA                        |
| High quality (very strong)                          | Aa                   | AA                               | AA                         |
| Upper medium grade (Strong)                         | A                    | A                                | A                          |
| Medium grade  | Baa                  | BBB                              | BBB                        |
| <b>Not Investment Grade</b>                         |                      |                                  |                            |
| Lower medium grade (somewhat speculative)           | Ba                   | BB                               | BB                         |
| Low grade (speculative)                             | B                    | B                                | B                          |
| Poor quality (may default)                          | Caa                  | CCC                              | CCC                        |
| Most speculative                                    | Ca                   | CC                               | CC                         |
| No interest being paid or bankruptcy petition filed | C                    | D                                | C                          |
| In default  | C                    | D                                | D                          |

1 The ratings from Aa to Ca by Moody's may be modified by the addition of a 1, 2, or 3 to show relative standing within the category.

2 The ratings from AA to CC by Standard and Poor's and Fitch Ratings may be modified by the addition of a plus or a minus to show relative standing within the category.

(MLP's) - Energy Related MLPs May Exhibit High Volatility. While not historically very volatile, in certain market environments Energy Related MLPS may exhibit high volatility.

Changes in Regulatory or Tax Treatment of Energy Related MLPs. If the IRS changes the current tax treatment of the master limited partnerships included in the Basket of Energy Related MLPs thereby subjecting them to higher rates of taxation, or if other regulatory authorities enact regulations which negatively affect the ability of the master limited partnerships to generate income or distribute dividends to holders of common units, the return on the Notes, if any, could be dramatically reduced. Investment in a basket of Energy Related MLPs may expose the investor to concentration risk due to industry, geographical, political, and regulatory concentration.

Mortgage-backed securities ("MBS"), which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk).

Additionally, the underlying collateral supporting non-Agency MBS may default on principal and interest payments. In certain cases, this could cause the income stream of the security to decline and result in loss of principal. Further, an insufficient level of credit support may result in a downgrade of a mortgage bond's credit rating and lead to a higher probability of principal loss and increased price volatility. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. Default risk may be pronounced in cases where the MBS security is secured by, or evidencing an interest in, a relatively small or less diverse pool of underlying mortgage loans.

MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements. Price volatility may also occur from other factors including, but not limited to, prepayments, future prepayment expectations, credit concerns, underlying collateral performance and technical changes in the market.

Alternative investments referenced in this report are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in the fund, potential lack of diversification, absence of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and advisor risk.

Asset allocation does not assure a profit or protect against a loss in declining financial markets.

The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance.

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