

# AFL Style Analysis during Periods of Duress

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Due to the recent developments globally on the COVID-19 outbreak and the subsequent drop in equity markets, S&P Global Market Intelligence has carried out analysis on historical periods of duress (i.e. financial and health crises and global recessions) and underlying factor/style performance using our [Alpha Factor Library \(AFL\)](#) tool on the S&P Capital IQ platform.

Our AFL tool breaks styles out into 8 different categories [Price Momentum](#), [Historical Growth](#), [Analyst Expectations](#), [Earnings Quality](#), [Valuation](#), [Capital Efficiency](#), [Size](#) and [Volatility](#). We rank equities based on their factor/style score and bucket equities into 5 equally weighted/market cap weighted quintiles.

## **Regime Monitor**

Our regime analysis indicates that the capital efficiency style has historically outperformed in the Asian Emerging/Developed Markets during a crisis, and is currently performing well when looking at the year-to-date returns (long/short basis).

We segregated the APAC equities markets into two broad groups:

- APAC Developed Markets excluding Japan (Asia DM Ex Japan) which includes: Australia, Hong Kong, New Zealand, Singapore and South Korea
- APAC Emerging Markets (Asia EM) which includes: China, India, Indonesia, Malaysia, Philippines, Taiwan and Thailand

Using the AFL regime monitor, we split the periods from April 1994 – December 2019 into two groups:

1. Shock periods which cover 4 financial crises, 4 health crises and 2 global recessions as outlined in table 1
2. Non-shock periods

We conduct backtests over the full date range as well as specifically for the shock periods to identify factors that might have performed better during the crisis periods. These tests are done for the Asia DM Ex Japan and the Asia EM markets.

Table 1: List of crises covered in the shock periods

| Start Date | Stop Date | Type             | Details                                |
|------------|-----------|------------------|--|
| Oct 1997   | Aug 1998  | Financial Crisis | Asian Financial Crisis <sup>1</sup>    |
| Jan 1995   | Mar 2000  | Financial Crisis | Internet Bubble <sup>2</sup>           |
| Mar 2001   | Oct 2001  | Global Recession | Y2K scare & 9/11 <sup>3</sup>          |
| Mar 2003   | May 2003  | Health Crisis    | SARS <sup>4</sup>                      |
| Jan 2008   | Oct 2008  | Financial Crisis | Global Financial Crisis <sup>5</sup>   |
| Jan 2008   | Jun 2009  | Global Recession | Global Financial Crisis <sup>6</sup>   |
| Jan 2009   | Aug 2010  | Health Crisis    | H1N1 Swine Flu <sup>7</sup>            |
| May 2013   | Nov 2013  | Health Crisis    | MERS <sup>8</sup>                      |
| Jun 2015   | Sep 2015  | Financial Crisis | China Equity Market Crash <sup>9</sup> |
| Jan 2016   | Jul 2016  | Health Crisis    | Zika Virus <sup>10</sup>               |

### Asia Developed Markets Ex Japan

The chart in Figure 1 plots the cumulative returns of the 8 style portfolios over the analysis period (1994-2019). Q1 (Quintile 1) contains the top 20 percent of stocks based on the respective style scores and Q5 (Quintile 5) contains the bottom 20 percent. The portfolios are long Q1 and short Q5. The shock periods are represented as blue bars in the chart. The lower section of Figure 1 contains the historical metrics for the shock periods.

<sup>1</sup> Corsetti, et al. "What Caused the Asian Currency and Financial Crisis? Part I: A Macroeconomic Overview." NBER, 1 Dec. 1998, [www.nber.org/papers/w6833](http://www.nber.org/papers/w6833)

<sup>2</sup> Eli, et al. "DotCom Mania: The Rise and Fall of Internet Stock Prices." NBER, 1 Dec. 2001, [www.nber.org/papers/w8630](http://www.nber.org/papers/w8630)

<sup>3</sup> Robert. The Business-Cycle Peak of March 2001, [www.nber.org/cycles/november2001/](http://www.nber.org/cycles/november2001/)

<sup>4</sup> Bennett, et al. "Learning During a Crisis: the SARS Epidemic in Taiwan." NBER, 14 Apr. 2011, [www.nber.org/papers/w16955](http://www.nber.org/papers/w16955)

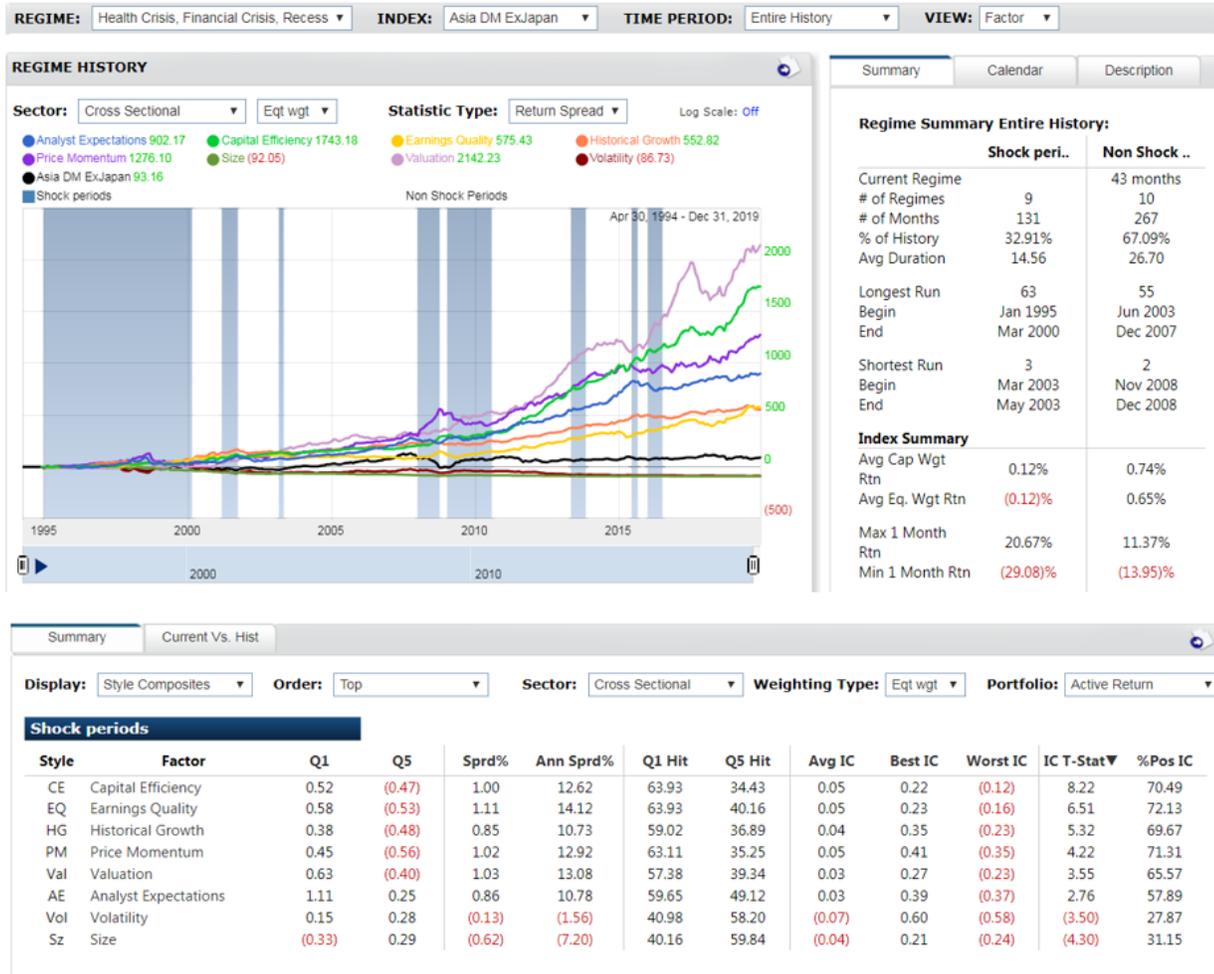
<sup>5</sup> "The Global Financial Crisis: A Selective Review of Recent Research in the International Finance and Macroeconomics Program." The National Bureau of Economic Research, [www.nber.org/programs/ifm/ifm09.html](http://www.nber.org/programs/ifm/ifm09.html)

<sup>6</sup> Amadeo, Kimberly. "The Great Recession of 2008: What Happened, and When?" The Balance, 13 Mar., 2020, [www.thebalance.com/the-great-recession-of-2008-explanation-with-dates-4056832](http://www.thebalance.com/the-great-recession-of-2008-explanation-with-dates-4056832)

<sup>7, 8 & 10</sup> DeCambre, Mark. "How the Stock Market Has Performed during Past Viral Outbreaks, as Coronavirus Spreads to Italy and Iran." MarketWatch, MarketWatch, 24 Feb. 2020, [www.marketwatch.com/story/heres-how-the-stock-market-has-performed-during-past-viral-outbreaks-as-chinas-coronavirus-spreads-2020-01-22](http://www.marketwatch.com/story/heres-how-the-stock-market-has-performed-during-past-viral-outbreaks-as-chinas-coronavirus-spreads-2020-01-22)

<sup>9</sup>China markets stabilized on Thursday as investors in Asia joined a global stocks rally. The benchmark Shanghai Composite closed up 5.3%. "China's Stock Market Crash ... in 2 Minutes." CNNMoney, Cable News Network, 27 Aug. 2015, [money.cnn.com/2015/07/09/investing/china-crash-in-two-minutes/index.html](http://money.cnn.com/2015/07/09/investing/china-crash-in-two-minutes/index.html)

Figure 1 : Regime analysis for Asia DM Ex Japan from August 1994 - December 2019



Source: S&P Global Market Intelligence as of 26 March, 2020. Charts are for illustrative purposes only.

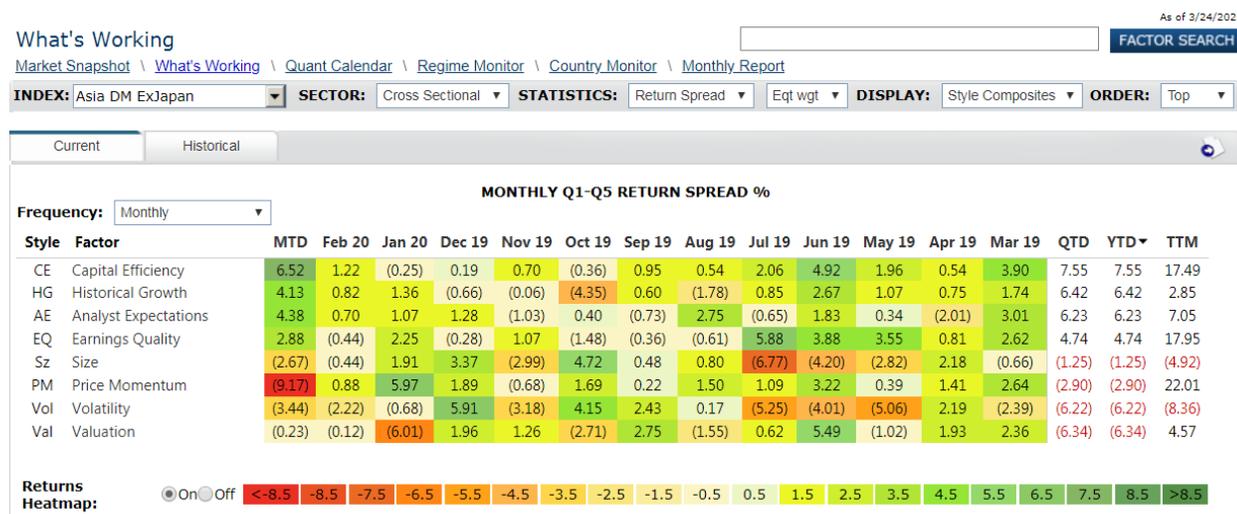
As seen in the chart across the full history, valuation had the highest return followed by capital efficiency. However during the shock periods, capital efficiency displays the most significant correlation (IC) as well the highest Q1 hit rate. Hit rate indicates the percentage of the portfolio that has a positive active return, and the hit rate for capital efficiency was 64%. Capital efficiency experienced the highest percentage of positive IC indicating that 70% of the months in the shock periods displayed a positive correlation with forward returns.

The observation seems to be in line with the flight-to-safety psychology that investors generally prefer to be on the defensive side, rewarding companies which are able to deploy their capital effectively and are showing earnings persistence.

## What's Working?

On the AFL's what's working section, we looked at the monthly returns of these styles over the last few months. As seen in Figure 2, capital efficiency has the highest year-to-date as well as the highest month-to-date returns.

Figure 2 : What's working for Asia DM Ex Japan

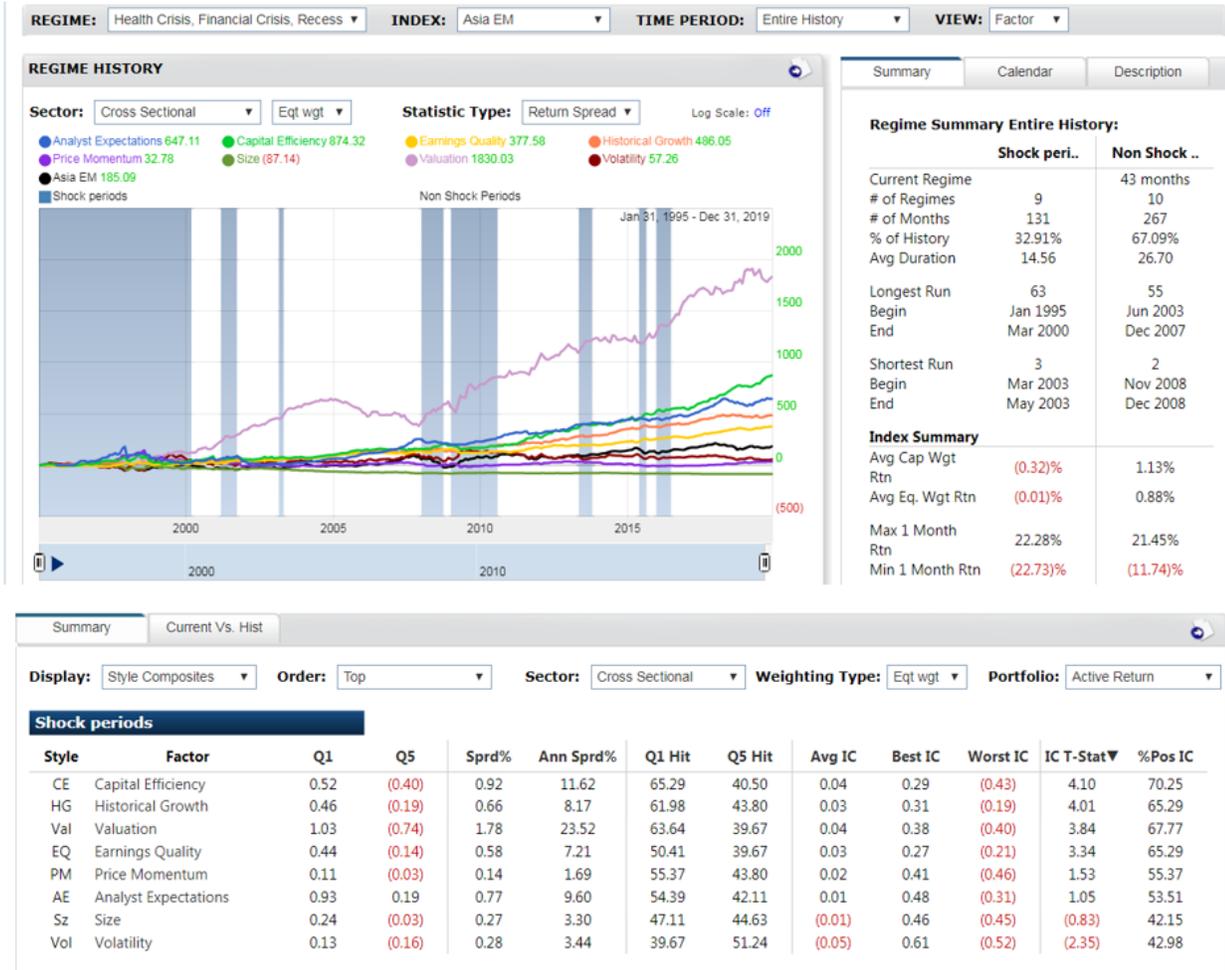


Source: S&P Global Market Intelligence as of 26 March, 2020. Charts are for illustrative purposes only

## Asia Emerging Markets

Similar to the developed markets story, valuation had the highest return followed by capital efficiency for the Asia Emerging Markets universe.

Figure 3: Regime analysis for Asia EM from January 1995 – December 2019

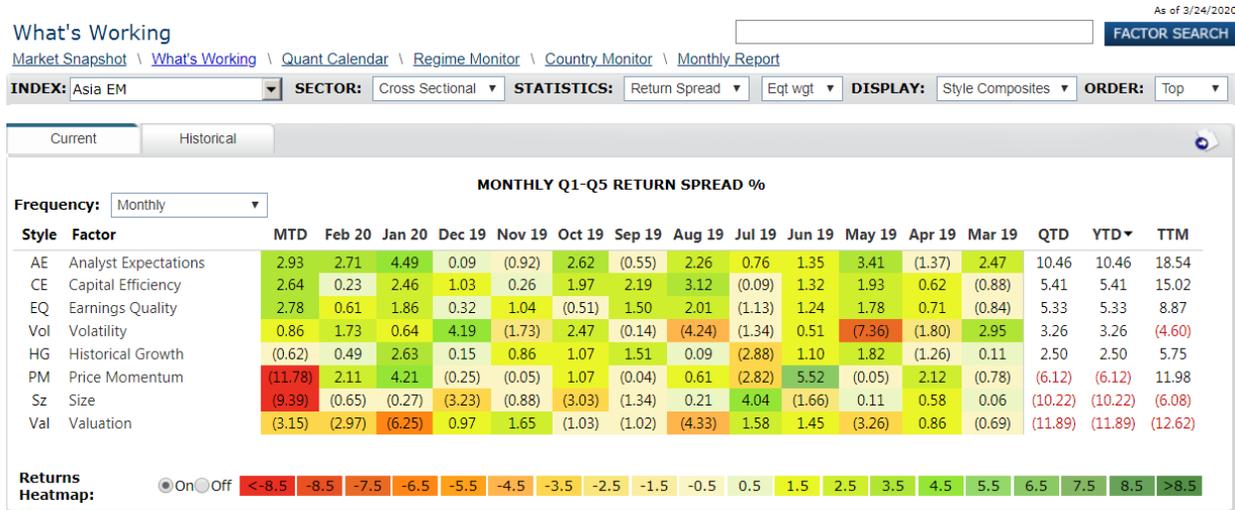


Source: S&P Global Market Intelligence as of March 26th, 2020. Charts are for illustrative purposes only

During the shock periods, capital efficiency displays the most significant correlation (IC) as well the highest Q1 hit rate. The capital efficiency hit rate was 65% and capital efficiency also had the highest percentage of positive IC indicating that 70% of the months in the shock periods displayed a positive correlation with forward returns.

Using the what's working section, we looked at the monthly returns of these styles over the last few months. As can be seen in Figure 4, analyst expectations followed by capital efficiency has the highest year-to-date returns.

Figure 4 : What's working for Asia EM

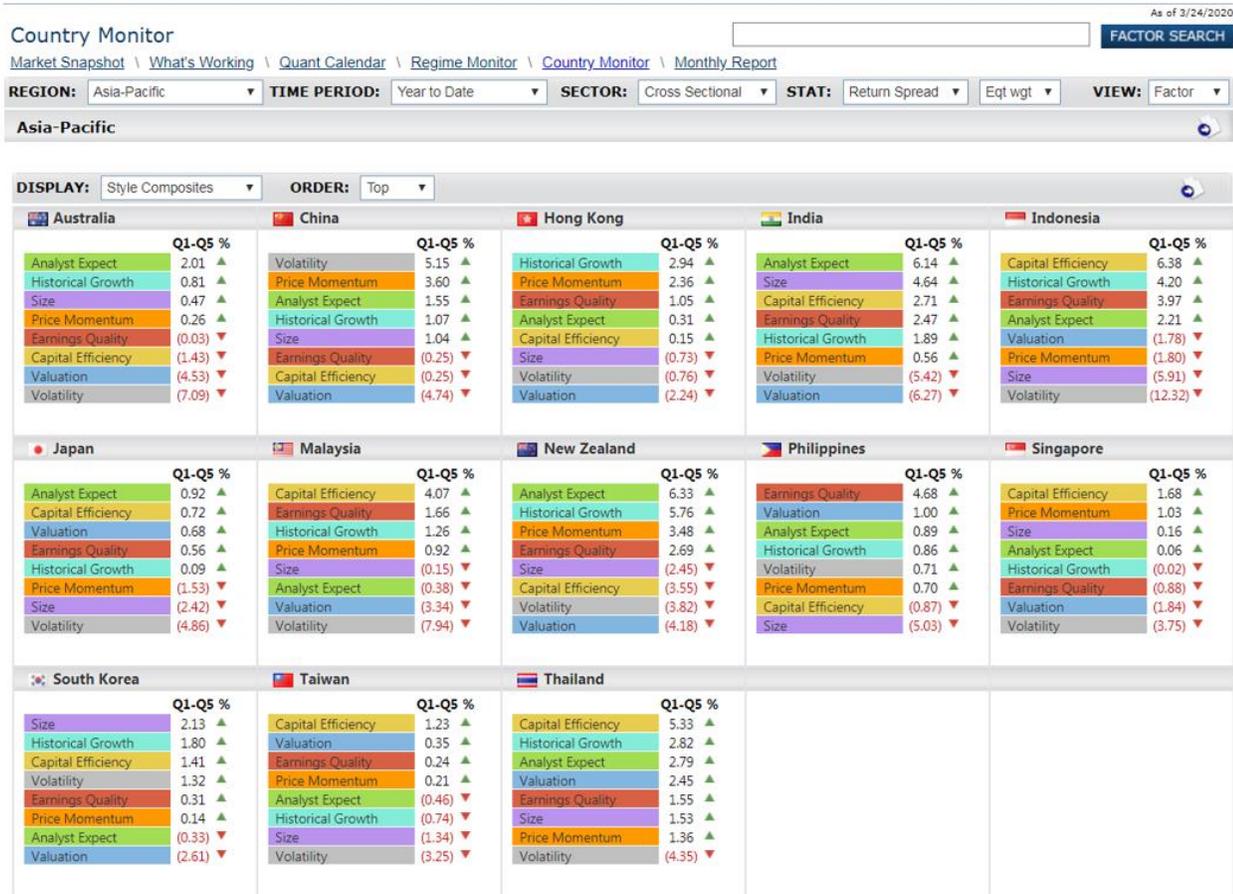


Source: S&P Global Market Intelligence as of 26 March, 2020. Charts are for illustrative purposes only

### Country Monitor

Using the AFL country monitor page, we can observe the individual countries performance and year-to-date returns of the various styles. As seen in Figure 5, capital efficiency is in the top 2 styles for 8 out of 12 APAC countries.

Figure 5: Country level style analysis for APAC countries



Source: S&P Global Market Intelligence as of 26 March, 2020. Charts are for illustrative purposes only.

**AFL - Daily Report**

Using the AFL daily report page on the S&P Capital IQ platform, we can now drill into the equities in Asia that rank highest on capital efficiency.

Figure 6: Top stocks by capital efficiency for Asia DM Ex Japan

Capital Efficiency

[Daily Report](#) \ [Summary](#) \ [Return](#) \ [IC](#) \ [Sector](#) \ [Seasonality](#) \ [Regime](#) \ [Turnover](#) \ [Correlation](#) \ [Coverage](#) \ [Formulation](#)

**INDEX:** Asia DM ExJapan    **RANKING TYPE:** Cross Sectional    **SECTOR:** All Sectors

| Ticker  | Cusip/Sedol | Score <sup>A</sup> | Company                               | Prior Close | Chg%    | Mkt Cap (mm) | Exchange | Sector                 | Industry   |
|---------|-------------|--------------------|---------------------------------------|-------------|---------|--------------|----------|------------------------|--|
| A056700 | 6427755     | 1.0                | Shinwha Intertek Corp.                | 1,800.00    | 8.76%   | 52219.96     | KOSDAQ   | Materials              | Materials  |
| ATM     | 6287250     | 1.0                | The a2 Milk Company Limited           | 16.72       | 3.85%   | 12318.10     | NZSE     | Consumer Staples       | Food, Beverage and Tobacco                       |
| AGL     | BSS7GP5     | 1.0                | AGL Energy Limited                    | 16.07       | 3.68%   | 10125.89     | ASX      | Utilities              | Utilities  |
| A041830 | 6315054     | 1.0                | InBody Co., Ltd.                      | 15,600.00   | (1.58%) | 207508.74    | KOSDAQ   | Health Care            | Health Care Equipment and Services               |
| A013120 | 6270733     | 1.0                | DongWon Development Co.,Ltd.          | 3,065.00    | 0.82%   | 278326.83    | KOSDAQ   | Real Estate            | Real Estate                                      |
| A030190 | 6248332     | 1.0                | NICE Information Service Co., Ltd.    | 12,000.00   | (6.98%) | 717393.52    | KOSDAQ   | Industrials            | Commercial and Professional Services             |
| QES     | B1Z81H9     | 1.0                | China Sunshine Chemical Holdings Ltd. | 0.30        | (1.67%) | 287.15       | SGX      | Materials              | Materials  |
| A100120 | B3F2324     | 1.0                | Vieworks Co. Ltd.                     | 27,000.00   | 3.05%   | 266086.08    | KOSDAQ   | Health Care            | Health Care Equipment and Services               |
| A143240 | B7D2929     | 1.0                | SaraminHR Co.,Ltd.                    | 24,600.00   | (1.60%) | 271319.87    | KOSDAQ   | Industrials            | Commercial and Professional Services             |
| 799     | BFRB2W6     | 1.0                | IGG Inc                               | 4.64        | (1.69%) | 5771.16      | SEHK     | Communication Services | Media and Entertainment                          |
| 1755    |             | 1.0                | S-Enjoy Service Group Co., Limited    | 14.48       | 4.78%   | 11846.09     | SEHK     | Industrials            | Commercial and Professional Services             |
| A319660 |             | 1.0                | PSK Inc.                              | 15,300.00   | 0.00%   | 225904.81    | KOSDAQ   | Information Technology | Semiconductors and Semiconductor Equipment       |
| CUV     | 6328405     | 2.0                | Clinovel Pharmaceuticals Limited      | 18.10       | (1.95%) | 894.33       | ASX      | Health Care            | Pharmaceuticals, Biotechnology and Life Sciences |
| TNE     | 6302410     | 2.0                | Technology One Limited                | 7.75        | 9.00%   | 2469.70      | ASX      | Information Technology | Software and Services                            |
| CTX     | 6161503     | 2.0                | Caltex Australia Limited              | 22.62       | 7.71%   | 5648.37      | ASX      | Energy                 | Energy   |

Source: S&P Global Market Intelligence as of 26 March, 2020. Charts are for illustrative purposes only

## Summary

One does need to keep in mind that in such a diverse APAC region, each country is experiencing different stages of the COVID-19 crisis. Whilst China was the first impacted, others are still in various stages of containment and lockdown, hence there may be a possibility that the capital markets of these countries have not fully priced-in the current crisis.

Another market distortion may come in the form of governments and central banks actively intervening with aggressive fiscal and monetary policies. These situations can be further analyzed on each individual country's AFL pages for deeper insights.

If the need to analyze custom equity portfolio for factor and style analysis arises, our Portfolio Analytics (PA) tool will be able to support this kind of custom analysis. Please reach out to us if you have any questions and we can navigate you through our AFL or PA solutions specific to your region or mandate.

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