S&P Global
Market Intelligence

**CONTACT US**

**Asia-Pacific**
+852-2533-3565

**Europe,**
**Middle East & Africa**
+44-207-176-1234

**The Americas**
+1 877 863 1306

# COVID-19's Early Impact on Public Companies' Fundamental Credit Risk – Asia Pacific

Audrey Dong, FRM, Analyst, APAC Analytic Development Group, S&P Global Market Intelligence

Hangyu Ma, CFA, FRM, Analyst, APAC Analytic Development Group, S&P Global Market Intelligence

**August 2020**

Recently, there have been many articles[1] published using market data to evaluate the impact of COVID-19 on corporate credit risk across different countries and industries. However, as countries are emerging from lockdown, stock markets around the globe are soaring back to pre-pandemic levels, betting on a quick economic recovery. Under such circumstances, solely relying on market data to measure the change of a company's credit profile may not fully reflect how the global shutdown affected businesses, as many had to leverage the fiscal, liquidity, and monetary stimuli offered by governments and central banks in support of the economy.

In this article, we conduct a retrospective study to assess the credit risk "scars" left by the COVID-19 pandemic on publicly-traded businesses, with a focus on the Asia Pacific region. In particular, we employ S&P Global Market Intelligence's Probability of Default Model Fundamentals (PDFN) - Public Corporates[2] and analyze the model outputs (probability of default (PD) levels and credit scores[3]) through the pre-pandemic period (2019 Q4) and pandemic period (2020 Q1) from a fundamentals standpoint.

[1] "Industries Most and Least Impacted by COVID-19 from a Probability of Default Perspective – March 2020 Update", S&P Global Market Intelligence, April 7, 2020, www.spglobal.com/marketintelligence/en/news-insights/blog/industries-most-and-least-impacted-by-covid-19-from-a-probability-of-default-perspective-march-2020-update.
[2] PDFN – Public Corporates quantifies the creditworthiness of public companies by using company financials, socio-economic, and macroeconomic factors. "PD Model Fundamentals - Public Corporates", February 2020, on the S&P Global Market Intelligence S&P Capital IQ platform, www.capitaliq.com/media/186192-PD%20Model%20Fundamentals%20-%20Public%20Corporates_Whitepaper_Feb2020.pdf.
[3] S&P Global Ratings does not contribute to or participate in the creation of credit scores generated by S&P Global Market Intelligence. Lowercase nomenclature is used to differentiate S&P Global Market Intelligence PD mapped credit scores from the credit ratings issued by S&P Global Ratings.

## What Do 2020 Q1 Financials Indicate?

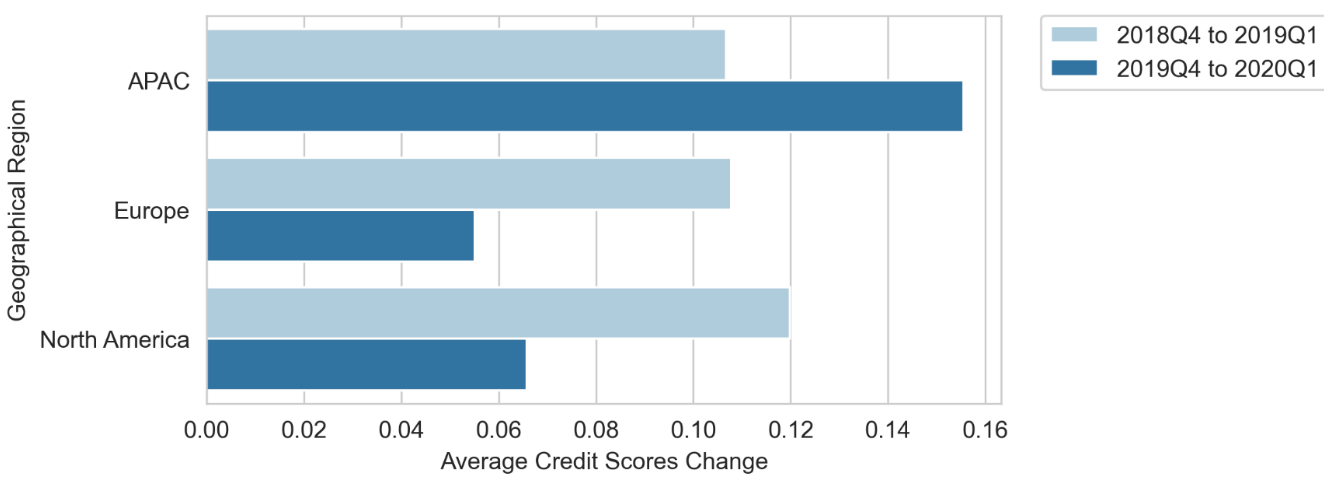
Despite the reporting lag of financial statements, it is meaningful to look at how overall fundamental credit quality has shifted based on the latest financial data, as it can help identify the actual impact on businesses in the context of the COVID-19 outbreak.

This article starts with a global overview, looking at the regions that were most affected during 2020 Q1 (APAC, Europe, and North America), and then zooms in on China as the country first hit by the coronavirus and the first to contain it towards the end of 2020 Q1. We only consider publicly-listed companies, as they report financial statements more frequently and on a timelier basis than privately-owned companies.

## Global Overview

Due to regional differences in the timing of the COVID-19 outbreak and lockdown policy enforcement, the shock to global economies from the coronavirus varied. As shown in Figure 1, APAC had the greatest average credit score drop (up to 0.15 notches) between 2019 Q4 and 2020 Q1. One year before (2018 Q4 to 2019 Q1), the changes were more or less the same across all three regions. As the coronavirus outbreak first emerged in Wuhan (China) in January 2020, and subsequently spread to Europe and North America in March, the graph below shows that its impact on businesses was reflected in the APAC region earlier than others.

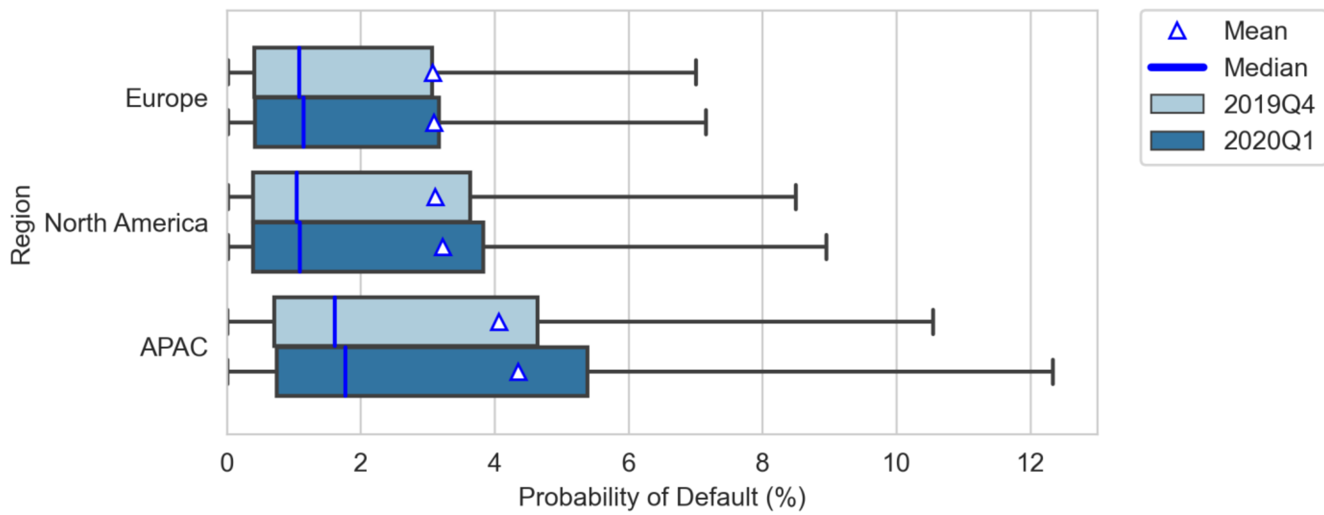
Figure 1: Average credit scores change by geographic region




Source: S&P Global Market Intelligence, as of June 21, 2020. For illustrative purposes only.

Apart from regional credit score changes, Figure 2 conveys more details about how the distribution of PD values shifted from the pre-pandemic period to the pandemic period across the three regions. In 2019 Q4, both median (solid blue line) and mean (white triangle) PD values in APAC initially ranked higher than the other two regions. With the coronavirus outbreak in 2020 Q1, the sharp increase in both median and mean PD values indicate that the APAC region experienced the greatest overall creditworthiness deterioration. In addition, PD values in APAC became much more dispersed, followed by North America and Europe over the same period. Such wider distribution indicates that the coronavirus raised the overall credit risk, particularly the tail risk, meaning there are more vulnerable companies prone to default. When the upcoming 2020 Q2 financial reports are available, we anticipate the same pattern of PD distributions to be seen in North America and Europe.

Figure 2: PD values distribution between 2019 Q4 and 2020 Q1




Source: S&P Global Market Intelligence, as of June 21, 2020. For illustrative purposes only.

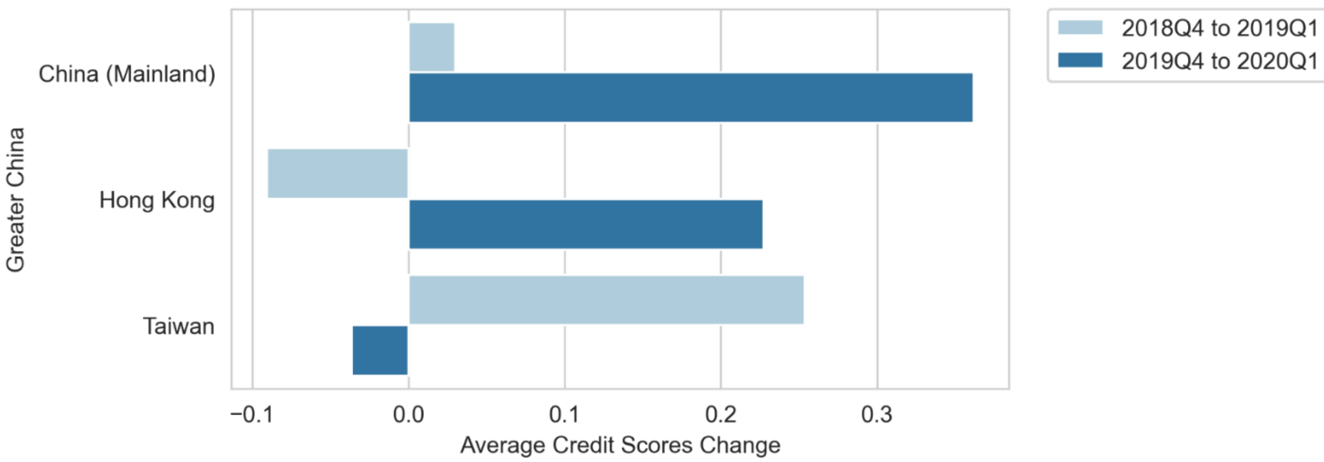
### Greater China Regional Overview

Among all economies in the APAC region, mainland China was the most impacted and contributed most to the increase in regional PD levels. Based on available 2020 Q1 financial data, Figure 3 shows that the average credit score of public companies in mainland China dropped by more than 0.3 notches between 2019 Q4 and 2020 Q1, followed by Hong Kong (0.2 notches). Conversely, the average credit scores in these two regions were relatively stable during the same period last year.

Another interesting finding from Figure 3 is Taiwan. Its overall credit score improved slightly according to 2020 Q1 financial data. We speculate this may be due to: (1) Taiwan was one of the few regions to quickly contain the coronavirus outbreak without a region-wide lockdown, (2) Taiwan's economy was hit heavily due to the trade war between the U.S. and China, and it was in the process of bottoming out as the coronavirus spread regionally,[4] and (3) more than 43% of public companies in Taiwan are in the Information Technology sector, which benefited from a surge in demand for digitalized services and technology. A follow-up analysis in the coming quarters will help validate or reverse these findings.

[4] "UPDATE 1-Taiwan's Q1 Economic Growth Slows as Global Tech Demand Falters", James Pomfret, April 30, 2019, www.reuters.com/article/taiwan-economy-gdp/update-1-taiwans-q1-economic-growth-slows-as-global-tech-demand-falters-idUSL3N2272CD.

Figure 3: Average credit scores change within Greater China




Source: S&P Global Market Intelligence, as of June 21, 2020. For illustrative purposes only.

## Mainland China Industry Level Overview

After reviewing the overall change of credit risk profiles in Greater China, we look at mainland China as an example of industry-level credit risk changes. In Figure 4, industries above the diagonal line saw a deterioration in their fundamental credit quality between 2019 Q4 (horizontal axis) and 2020 Q1 (vertical axis), with the distance from the diagonal line indicating the degree of deterioration. The larger the size of the bubble, the greater reduction in profitability[5] of the sector. In addition, industries with a rapid decrease in profitability are usually accompanied by higher debt, especially for short-term borrowing. For example, Hotels & Restaurants and Airlines were hit severely by the coronavirus and have experienced an increase in short-term borrowing by 57% and 48%, respectively. Overall, the most impacted industries in mainland China are Transport (including Airlines),[6] Hotels & Restaurants, Consumer Products (Durables), Retail, and Media & Entertainment, due to decreased demand caused by strict lockdown measures.

As shown in Figure 4, although Chinese airlines experienced a significant deterioration in creditworthiness, the absolute credit score was still at a low level compared to that of other industries. This is probably due to: (1) Chinese airlines are dominated by state-owned companies, so they have strong financial backing, and (2) China's extensive lockdown during the first quarter of 2020 caused temporary stagnation in domestic and international flights. However, since China began to resume domestic and limited international travel in March, it is likely that the credit score will rebound in the future.

[5] Collapse of profitability is the percentage change of median Return on Net Capital for companies in each industry sector.
[6] For additional research of the COVID-19 impact on Chinese airlines, see "How Covid-19 Impacts Chinese Airline Companies", www.spglobal.com/marketintelligence/en/news-insights/research/how-covid-19-impacts-chinese-airline-companies.

Figure 4: Average credit scores change by industry


*Profitability is measured as Return on Net Capital ((EBIT - Income Tax) / (Total Debt + Total Equity - Cash & ST Invest)), which is a financial ratio input for PDFN Public.

Source: S&P Global Market Intelligence, as of June 21, 2020. For illustrative purposes only.

## Summary

In this retrospective review, we have leveraged PDFN – Public Corporates to examine COVID-19's impact on businesses based on the latest 2020 Q1 financial data and compared it to the same period last year. This shows that APAC's fundamental credit quality deteriorated by more than 0.15 notches. China, in particular, was hit the most during 2020 Q1, and experienced an overall credit score deterioration for its public companies by more than 0.3 notches. Due to deteriorated company profitability and higher debt levels during the lockdown, the industry-level analysis based on Chinese public companies indicates that Transport (including Airlines), Hotels & Restaurants, Consumer Products (Durables), Retail, and Media & Entertainment were the most affected industries.

Despite the difference in economy structures across countries, this review can still serve as a useful reference when extending the analysis to other regions, especially those hit by the coronavirus in 2020 Q2. In the next few months, we will follow-up with an analysis using future quarterly financial statements to potentially show the path to recovery in mainland China.