

**RESEARCH**

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# Taking the Temperature of the Impact of COVID-19 on Corporate Credit Risk in Southeast Asia

## Key Points

- » Corporate default risk surged throughout Southeast Asia in the wake of the economic shock caused by COVID-19. In many cases, the average risk of default for companies in Southeast Asia doubled from January to March 2020, hitting their highest levels in more than a decade.
- » As central banks and governments have flooded markets with stimulus and liquidity, average corporate PDs in Southeast Asia have come off their March peaks, but they remain significantly elevated.
- » The credit risk of companies in real economy sectors (energy, transportation, travel, and construction related-sectors) in Southeast Asia have been particularly hard hit.
- » Although a credit crisis has not yet materialized to drive up default risk and credit spreads to levels seen during the global financial crisis, should a severely adverse economic scenario become a reality, defaults and credit spreads for Southeast Asian corporates would likely rise to levels surpassing those from that time.

## A Shock to the System

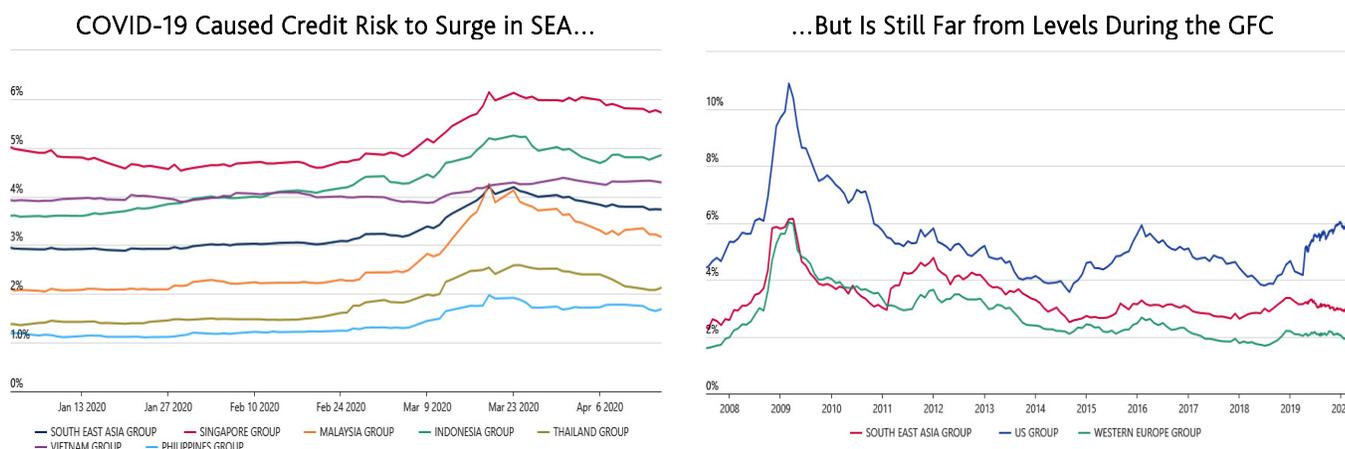
The COVID-19 pandemic has sent shockwaves throughout the global economy. Many economies have found themselves plunged suddenly into recession. The effects on employment, exports, and consumer spending have been sharp and immediate. Somewhat less clear, however, is how severely the economic shock has affected corporate credit risk. In this article we assess what the impact of the pandemic has been on corporate credit risk in Southeast Asia so far, and look ahead to project how much worse it could get.

There are many ways to measure credit risk: agency credit ratings, credit spreads from the bond or CDS markets, fundamental financial ratios. In this article we use corporate probabilities of default (PDs)<sup>1</sup>. As forward-looking (one year ahead), point-in-time measures of credit risk, PDs capture changes in the credit risk of public companies in as close to real time as possible, and are thus an ideal metric for taking the temperature of corporate credit risk.

Figure 1 shows the impact on corporate credit risk for seven economies in Southeast Asia. The left side of the figure, covering 2020 so far, shows that average probability of defaults for companies in Southeast Asia have jumped since the COVID-19 outbreak, starting near the end of February. Each economy had its own story at the start of 2020, with different starting average PDs, but across the region the pandemic shock has caused credit risk to surge. In many cases – such as in Malaysia, Thailand, and the Philippines – the average country-level corporate PDs have doubled since January. In other cases, such as Singapore, the average PD started at an already elevated level, and has increased by about 20% since the start of the year.

As central banks and governments have flooded markets with stimulus and liquidity, average corporate PDs in Southeast Asia have come off their March peaks. However, they remain significantly elevated. Despite the economic damage recorded so far there are still many uncertainties, and investors remain concerned that the full impact of the pandemic on credit risk may yet to be realized. So far, we have not seen a surge in corporate defaults, or the default of a large, economically important firm. But as the economic damage begins to be revealed in corporate earnings, and companies grapple to sustain their businesses not knowing how long the economic slump will last, there remains a material risk. A notable corporate default or a rash of defaults could lead to a sharp repricing of risk, which would cause a second, potentially larger, wave of increases in average default risk.

**Figure 1: Average Corporate Default Probabilities Have Moved Higher Across SEA**



An important question for credit investors is how does the recent rise in credit risk compare to that during the global financial crisis (GFC), and could it rise as high as the levels reached back then? The right side of Figure 1 provides some perspective. Here we plot average corporate PDs for Southeast Asia, the US, and Western Europe. The far right-hand side clearly shows the recent jump in credit risk. When we compare those jumps to the average PDs that prevailed at the end of 2008, we see that there is still some way to go before those historic crisis levels are hit. Central banks around the world are going all out to try to ensure that the factors that led to those conditions, such as drying up of funding for banks and a sudden lack of liquidity, do not emerge. However, given the current volatility, it may be too early to rule out such a possibility. We will take this question up again later in this article.

<sup>1</sup> Specifically, we leverage the Moody's Analytics EDF™ (Expected Default Frequency) probability of default measures to gauge the credit risk of publicly listed firms. These PDs are not associated with Moody's Investors Service credit ratings.

## Economic Freeze Drives Up Credit Risk in Real Economy Sectors

When we look across industry sectors, we find that the effect on corporate credit risk of the coronavirus shock has hit real economy sectors in Southeast Asia particularly hard. Figure 2 shows five industry sectors showing the highest average PD levels for countries in Southeast Asia. Energy, Transportation, Natural Resources, and other real economy sectors consistently show up among those most affected by the COVID-19 economic shock.

These sectors have all been negatively impacted by the sharp fall in demand by consumers globally and the pull-back in spending, both now and planned for the future. The Technology and IT Services sector has seen its average credit risk rise as businesses delay or even cut investment. Some countries for whom tourism is an important part of the economy, such as Thailand and the Philippines, have also seen average PDs of their Travel, Entertainment, and Leisure sector jump into the top five most impacted sectors as well.

### Figure 2: Energy, Transportation, Materials, Travel Sectors Are Risky Across SEA

Average One-Year Default Probabilities (EDF Measures) for Five Severely Impacted Industry Sectors, by Country  
(Data ending April 2020)

INDONESIA		MALAYSIA		PHILIPPINES	
Energy	10.4%	Energy	8.3%	Transportation	5.2%
Transportation	7.6%	Transportation	6.2%	Travel/Entertainment/Leisure	3.5%
Consumer Durables	7.3%	Travel/Entertainment/Leisure	4.6%	Technology & IT Services	3.1%
Natural Resources	6.9%	Utilities	4.1%	Finance Co/Brokers/Dealers	2.1%
Materials/Fabrication	6.6%	Business Products/Svcs	3.4%	Business Products/Svcs	2.0%
SINGAPORE		THAILAND		VIETNAM	
Natural Resources	13.4%	Natural Resources	3.3%	Energy	9.9%
Energy	12.6%	Finance Companies	3.2%	Natural Resources	6.9%
Utilities	9.9%	Business Products/Svcs	2.7%	Construction	5.1%
Materials/Fabrication	8.7%	Transportation	2.6%	Technology & IT Services	3.8%
Consumer Non-durables	6.8%	Travel/Entertainment/Leisure	2.0%	Transportation	3.3%

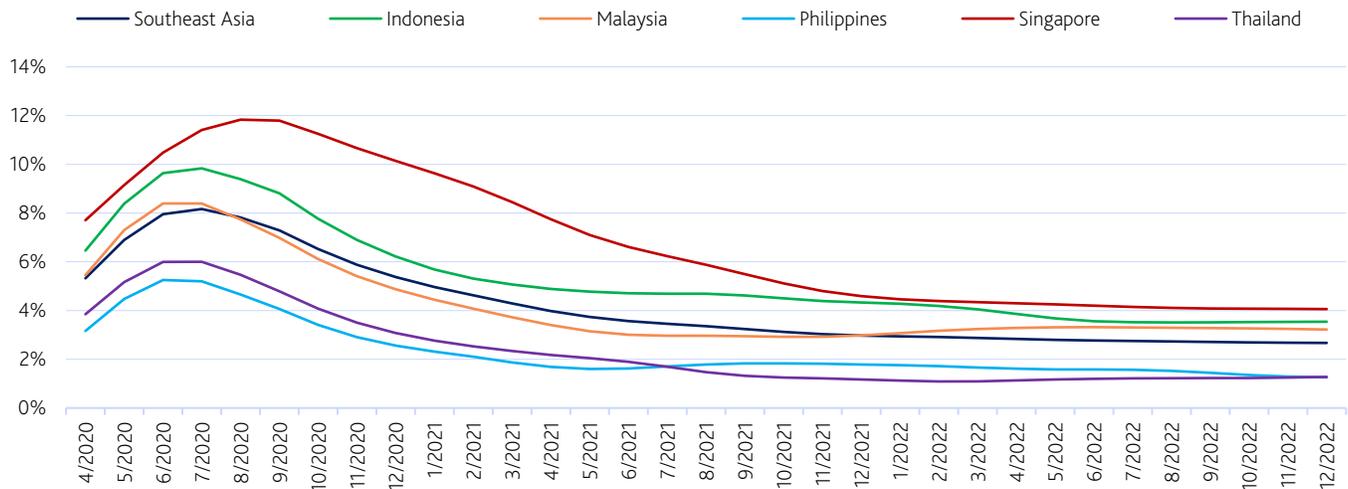
## How Bad Could It Get?

The discussion above help us understand how corporate credit risk has moved up to now, and provides some historical context. The average default probabilities shown in Figures 1 and 2 represent the best forecast of the one-year ahead probability of default, given what we know about these companies today. The COVID-19 shock has heightened uncertainty and risk, and forecasts of all kinds have had to be continually revised as the pandemic has unfolded. As this situation is likely to persist for some time, we need to be able to estimate the potential impact of a range of severe economic scenarios on credit risk, even if we are not certain about the likelihood of such scenarios occurring.

To do this, we can condition our forward-looking corporate default probabilities not just on firm-specific information, but also on macroeconomic factors like GDP, exports, consumer spending, the unemployment rate, etc. The projected effect on average corporate PDs under a severely adverse economic scenario is shown in Figure 3. The graph shows the average expected corporate default probabilities for five countries in Southeast Asia and for Southeast Asia as a region. The average projected corporate PDs are based on the Moody's Analytics S4 economic scenario, which is the most severe projected alternative scenario, but also the least likely to occur.<sup>2</sup>

<sup>2</sup> In the deep downside S4 scenario, the COVID-19 crisis lasts longer with more cases and deaths than anticipated. Restrictions on travel and business closures wind down more slowly than in the baseline (expected) scenario throughout the second quarter and into the third quarter, and do not end until August this year. A deep economic decline in 2020 is based on the lockdown of many businesses during this time. Copies of the scenario documentation are available upon request.

**Figure 3: Projected Average Corporate PDs Under A Severely Adverse Economic Scenario**



Under the assumptions of the severe downturn scenario, average EDF measures for the companies in all of these economies in Southeast Asia would surpass the highs reached during the GFC. The average corporate PD for Singapore, for example, reaches almost 12% in the severe scenario. It reached 9% during the GFC. The projections also show that peaks in average credit risk for companies in Southeast Asia would not occur until Q3 or Q4 of this year. We should emphasize that these are not the expected outcomes at this time, but are in the range of possibility should the public health crisis endure long enough to inflict deeper and more protracted economic damage.

Linking back to our discussion above, although a credit crisis has not yet materialized that would drive up default risk to levels seen during the GFC, should economic conditions remain suppressed it is indeed possible that default risk could surpass those levels. Figure 4 shows the average corporate PD for the Southeast Asia region and the Option-Adjusted Spread (OAS) for the BofA-Merrill Lynch Asia Emerging Markets Corporate Plus Index back to 2007, as well as projections through 2022 for both series under the severely adverse economic scenario (the shaded area on the right side of the graph).<sup>3</sup> In such a scenario, default risk and credit spreads for corporates in Southeast Asia would surpass the highs reached in 2008-9.

**Figure 4: Projected Average Corporate PDs and Credit Spreads for Southeast Asia Under A Severely Adverse Economic Scenario**



Data sources: Moody's Analytics and BofA Merrill Lynch.

<sup>3</sup> We projected the OAS based on the historical correlation between the average probability of default (EDF measure) for Southeast Asia and the historical BofA-Merrill Lynch Asia Emerging Markets Corporate Plus Index.

## Summary

COVID-19 will continue to pose economic challenges for economies in Southeast Asia for the foreseeable future and, as a consequence, its effect on corporate credit risk may linger on well into 2021 and beyond. We saw that sectors of the real economy that have been particularly hard hit by the economic shock also show the highest levels of credit risk. Natural resources, energy, transportation, and consumer goods show relatively high PDs across the region.

So far, the economic shock has not caused a financial shock that would cause corporate PDs to jump to the levels seen during the global financial crisis. Central banks and governments have provided unprecedented stimulus to try to ensure that that does not happen. However, as the duration of the public health crisis is still uncertain, the depth and duration of the economic downturn is also uncertain. As our simulations showed, default risk could, under a very severe economic scenario, surpass the average PDs we saw just over a decade ago, and as a result driving up credit spreads. The likelihood of such a scenario is still far from certain, but, as we have seen, the temperature of the credit risk climate can change rapidly.

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