# Credit Brief on Singapore SMEs
# Q3 2017

*Jointly by Credit Research Initiative Team and Validus Capital Pte. Ltd.*

This brief is a jointly published quarterly article, between Validus and Credit Research Initiative at National University of Singapore (NUS-CRI), providing insights on industry-level Credit Risk of Singapore SMEs and provides a summary of how loans generated through the Validus' platform incorporates the learnings from the industry-level Credit Analysis. The Credit Risk of the industries is measured via the Probability of Default (PD) model developed by the NUS-CRI team (www.rmicri.org).This analysis is conducted across 10 industries (Bloomberg classification) and the loans funded through Validus. (www.validus.sg)

*Data note: Analysis in this report is based on the sample of public SMEs. Due to the small sample size in Singapore and similar credit characteristics of public SMEs across Singapore, Australia, Hong Kong and Korea, all CRI sector PDs are calculated as an average of PDs for the public SMEs in the four economies. This methodology is in agreement with Validus Capital Pte. Ltd. and is expected to reflect the Credit Risk profile of Singapore SMEs.*

## A. Key Highlights on Credit Risk

The NUS-CRI 1-year PD for Singapore SMEs increased from 13.82bps to 15.42bps in Q3 2017, while Singapore's Q3 GDP grew 4.6% YoY. The SBF-DP SME Index[1] decreased from 50.9 to 50.6, in tandem with the rise in NUS-CRI PD, suggesting a slight deterioration of the credit profile of Singapore SMEs in Q3 2017.

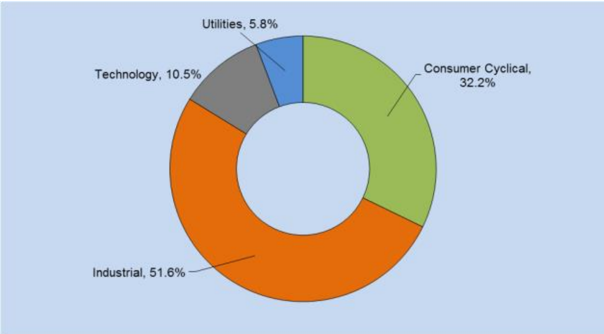
- CRI 1-year PDs for Singapore SMEs slightly increased in Q3 2017.
- Energy and Communications sectors saw the highest credit risk in Q3, while Consumer (non-cyclical) and Technology delivered the best credit performance among all industries.
- The Consumer (non-cyclical) sector was the best performer for the second time.
- Small Firms performed better than All Sizes in the Utilities and Energy industries, while reversely for the other industries.
- The overall multiple of medium term PD (1-year) to short term PD (1-month) is 10.01x as compared to 10.23x from the previous quarter. This is an indicator denoting the extent of the behaviour of medium term PD compared to the short term PD which is further used as a benchmark for industry-level PD multiple. Any industry level PD multiple that is higher than the overall multiple indicates that medium term loans for those industry sectors are more risky than short term loans and vice versa.

## B. Loans originated through Validus Platform

- Loans funded[2] through Validus include firms in Consumer Cyclical, Industrial, Technology and Utilities.
- 84% of loans originated from Validus platform are to companies within the Industrial and Consumer Cyclical sectors. The loans are mostly short term in nature for these two industries. NUS-CRI insights does not indicate any adverse risk on these two industry sectors.
- Profile of loans originated through Validus platform are displayed in the charts below:

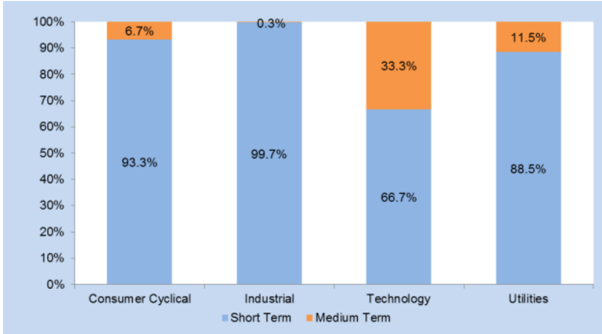
[1] SBF-DP SME Index is a six-month forward looking business sentiment index by Singapore Business Federation and DP Information Group
[2] This report contains all loans funded through Validus

**B.1 % of total loans funded through Validus Platform by industry sector**




*Source: Validus Capital, all figures are updated as of September 30, 2017*

**B.2 % of loans funded through Validus Platform by industry sector and tenure**

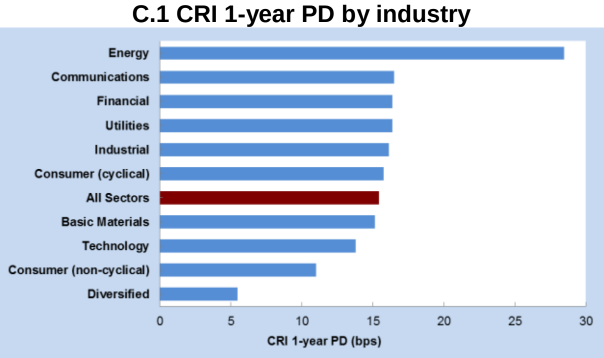



*Source: Validus Capital, all figures are updated as of September 30, 2017*

## C. Credit Risk for Singapore Industries

The CRI 1-year PD assesses the credit risk in the future one year. The comparison of PD trends and PD multipliers across industries gives a clear picture of the relative credit performance of each sector. The relative credit performance by firm size within each industry is also provided. By definition[3], firms with annual turnover equal to or below USD 2mn are considered Micro Firms, between USD 2-10mn are considered Small Firms, while larger than USD 10mn and equal to or below USD 100mn are considered Medium Firms.

**C.1 CRI 1-year PD by industry**

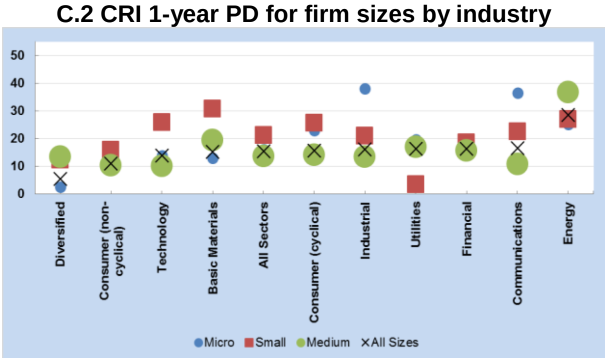



*Source: CRI, all figures are updated as of September 30, 2017*

Among all Singapore SMEs, the CRI 1-year PD for the Energy sector performed worst, followed by the Communications and Financial sectors in Q3 2017. In contrast, the Consumer (non-cyclical), Technology and Basic Materials sectors delivered robust performances.

- The credit performance of all sectors worsened in Q3 2017 as the CRI 1-year PD increased over the quarter.
- The Energy sector remained to be the most risky sector in Q3 2017. The CRI 1-year PD for the Communication sector has increased over the months since the end of Q2 2017, and has now become the second most risky sector in this quarter.
- The Consumer (non-cyclical) sector has maintained to be the least risky sector for two consecutive quarters.

**C.2 CRI 1-year PD for firm sizes by industry**



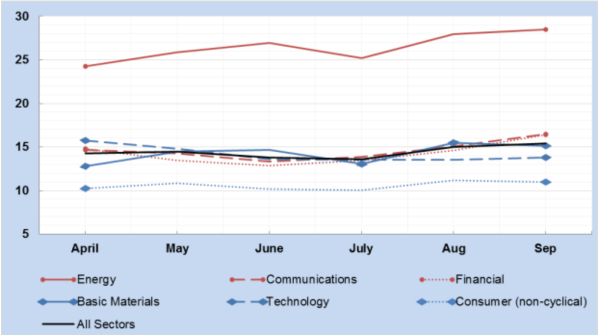

*Source: CRI, all figures are updated as of September 30, 2017*

SMEs with different firm sizes delivered variable CRI 1-year PD performances within each industry. Industries with the highest PD variance of sizes were the Communications, Industrials and Basic Materials sectors.

- The small firms in the Utilities and Energy sectors performed better than All Sizes in the same sector. Small Utilities firms had the CRI 1-year PD of 3.54bps, lower than every other firm of any size or sector.
- The Communications sector displayed the highest variance of the CRI 1-year PDs among all sectors. On the other hand, the sector that displayed the lowest variance is the Financial sector.
- Micro Industrial firms carried the highest credit risk among every other firm of any size or sector. The CRI 1-year PD for micro Industrial firms is 38.08bps.

[3] Defined by Validus Capital Pte. Ltd.

**C.3 CRI 1-year PD trend by industry**

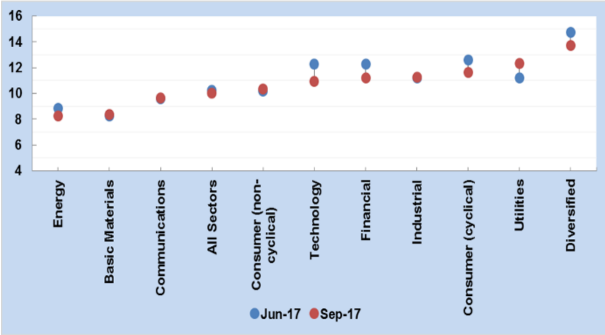



*Source: CRI, all figures are updated as of September 30, 2017*

The credit performances for all Singapore SMEs had worsened in Q3 2017.

- Among the three most risky sectors, the Energy sector's CRI 1-year PD deteriorated by 1.52bps during Q3 2017. The Communications and Financial sectors deteriorated by 3.19bps and 3.54bps respectively.
- Comparing the trends within the three least risky sectors, the CRI 1-year PDs for the Basic Materials and Technology sectors increased by 0.51bps and 0.19bps respectively. The Consumer (non-cyclical) sector, which was the best credit performer this quarter, saw its CRI 1-year PD increase moderately by 0.85bps during Q3 2017.

**C.4 CRI PD multiple by industry**




*Source: CRI, all figures are updated as of September 30, 2017*

The multiples of medium term PD (1-year) to short term PD (1-month) for all industries are shown above.

- The PD multipliers showed varied changes. The PD multiplier increased for the Basic Materials, Communications, Consumer (non-cyclical), Industrial and Utilities, while the multipliers decreased for the remaining sectors. An increase in the multiplier indicates that credit risk has worsened in the medium term faster than the short term.
- The Technology sector recorded the largest decrease in PD multiple. The CRI PD multiple for the sector decreased to 10.9X in September 2017 from 12.3X in June 2017.

## D. Conclusion

The credit outlook for Singapore SMEs saw a small correction despite the improved business sentiment in the past two quarters. Although Singapore Q3 GDP beat forecasts and grew by 4.6% YoY, the NUS-CRI 1-year PD silently climbed during the same period, showing the worsening credit performance in most sectors. The escalating credit risk resonates with the decline in the SBF-DP SME Index, a measure of business sentiment among SMEs. There are many difficulties that SMEs need to address, such as the global political risks, higher business costs, and the increasingly tight labor market. Energy industry remains the most vulnerable due to lackluster business performance. The silver lining is that Singapore SMEs seem to have foreseen the trend of digital disruption and have been preparing for the upcoming opportunities for years. The R&D investments by Singapore SMEs had grown by 7% on a yearly basis from 2010 to 2015, much higher than the 3% annual growth for the former five-year period. It suggests that strong headwinds cannot deter Singapore SMEs from moving forward.