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Empowering Singapore's SMEs: FinTech P2P lending — A lifeline for SMEs' survival?

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Abstract The COVID-19 pandemic has sent shock waves throughout the world, pushed countries into lockdown, and wreaked havoc on the world's people and the global economy. The damage to economies around the world caused by the COVID-19 pandemic has far exceeded that of the global financial crisis. While all businesses suffered hugely, it would be of grave consequence if the small and medium-sized enterprises (SMEs), an important segment of every country's economy, are unable to withstand the shock wave and sustain themselves beyond this pandemic. The COVID-19 pandemic has highlighted the importance of cash flow or working capital for the viability of SMEs, exposing their vulnerability and the deterioration in their business conditions, given their limited financial resources and weaker access to financing. Hence, enabling access to finance for SMEs is important in order to restore economic growth and help economies overcome the current crisis. This paper contributes to the literature by (i) providing an understanding of the financing gaps faced by SMEs and factors that impede their credit evaluation by traditional

financial institutions, (ii) reviewing peer-to-peer (P2P) lending platforms as an alternative finance option for SMEs and (iii) proposing measures to be considered by regulatory bodies, in Singapore for example, aimed at facilitating the growth of the FinTech sector while expanding alternative financing options for SMEs. Proposed regulatory measures are given due consideration for the interplay between innovation, new risks and the existing regulatory landscape, in pursuit of the main objective of empowering SMEs to embrace the digital renaissance for a positive future.

KEYWORDS: FinTech, SME, lending, platform, alternative finance, COVID-19

INTRODUCTION

Before the COVID-19 pandemic took centre stage, it was digital innovation that was all the rage — disrupting and reshaping financial services, making every aspect of them easier, more accessible and faster to perform. With the adoption of innovative solutions and new business models, FinTech lenders and digital challenger banks can offer financing that is easily accessible, frictionless and rate competitive. A range of new lending platforms, including peer-to-peer (P2P) and marketplace lenders, have appeared in jurisdictions around the world, emerging as potential high growth financial innovations.

Given that the COVID-19 pandemic has forced countries into lockdowns and wreaked unprecedented havoc on the world's people and economies, it is imperative for businesses to embark on digital innovation as a means of survival rather beyond their essential needs. Furthermore, the pandemic has highlighted the importance of cash flow or working capital for the viability of SMEs, exposing their vulnerability and the deterioration in their business conditions given their limited financial resources and weaker access to financing.

SME financing is a perennial concern, and more so during the pandemic, as SMEs worldwide are facing financial stress arising from increasing firm closures and corporate bankruptcies, deteriorating payment performance and rising non-performing loans (NPLs). FinTech innovation such as P2P lending could help get SMEs back on track and reduce their risk of closure or bankruptcy.

This paper contributes to the literature by (i) providing an understanding of financing gaps faced by SMEs — several key factors that impede SME lending, such as SME size and complexities, lack of track records and cash-flow/payments information, difficulty in SME credit risk assessment by credit bureaus, collateral-based credit lending models used by traditional financial institutions; (ii) reviewing P2P lending platforms as an alternative finance option for SMEs; (iii) proposing measures to be considered by regulatory bodies (eg as in Singapore) that could facilitate the growth of the FinTech sector while expanding alternative financing options (eg P2P lending) for SMEs. Proposed regulatory measures provided in this paper are examined with reference to the interplay between innovation, new risks and the existing regulatory landscape, all towards the main objective of empowering SMEs to embrace the digital renaissance for a positive future.

FINANCING GAPS FACED BY SMEs

Prior to the COVID-19 pandemic, SMEs generally faced greater financing obstacles than did larger firms, and their limited access to external financing sources such as venture capital, trade credit, bank loans and bank credit facilities added to their burdens.

First and foremost, the finances of SMEs have different types of complexities[1] because they are smaller in size and characterised by 'informational opacity'.[2] SMEs are typically

more 'opaque' than larger firms because they have less publicly available information for banks to assess their creditworthiness and corporate capabilities. According to the financial growth cycle paradigm proposed by Berger and Udell[2] (Figure 1), only when firms mature and establish a track record along growth stages does their ability to provide collateral increase. The track record serves to improve the creditworthiness of the firm, thereby helping them gain access to increased sources of external debt and equity capital. Hence, the lack of creditworthiness or track record is an impediment to SMEs' ability to obtain external financing from banks or financial institutions.

Second, owing to the lack of information on SMEs, the provision of collateral is often required by lenders. The positive association between asset structures and long-term debt ratios implies that asset tangibility or collateral plays an important role in SMEs' access to long-term debt financing.[3] Furthermore, SMEs with lower asset allocation on fixed assets are likely to encounter difficulties in accessing long-term debt capital because of their inability to provide the required collateral. The collateral

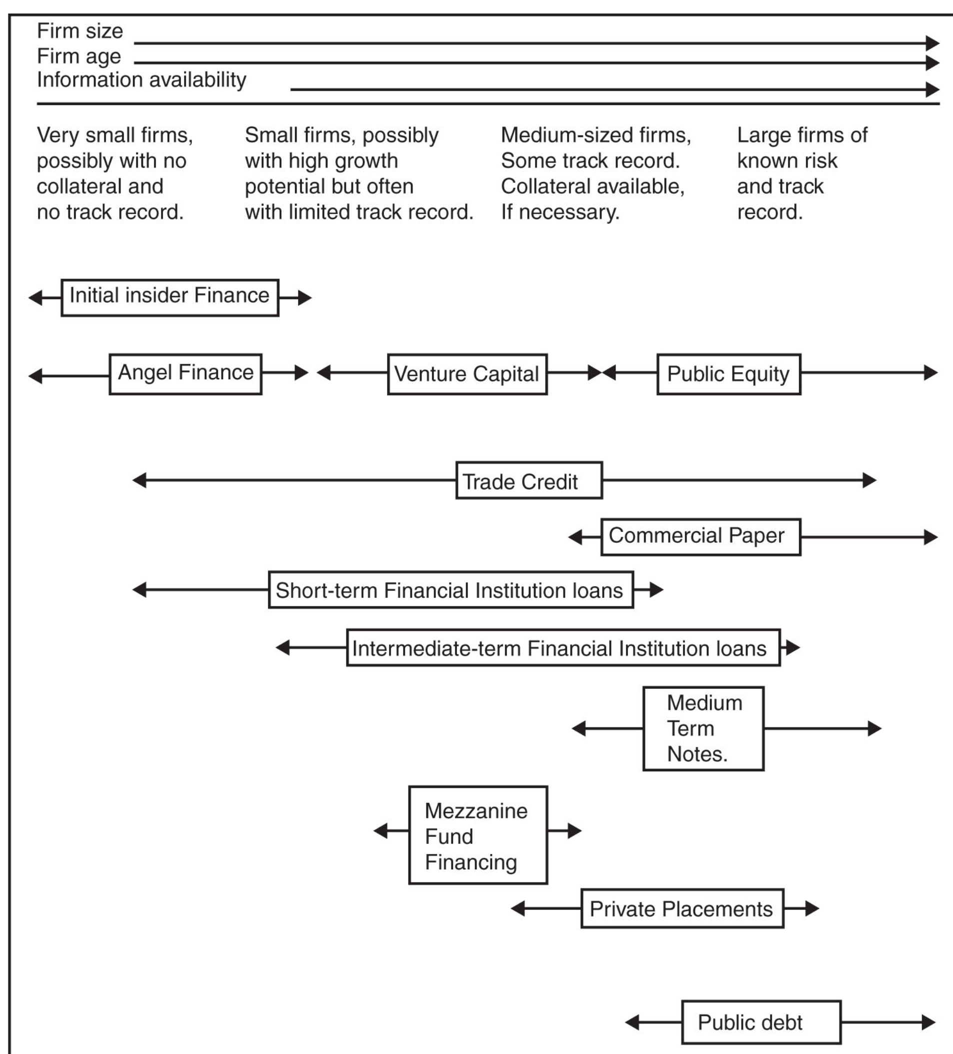

Figure 1: Firm continuum and sources of finance.

channel plays a prominent role in the link between competitive pressures faced by firms and firms' discouragement from applying for loans.[4] On the other hand, lenders will be willing to provide collateralised loans only when appropriate institutions exist to enforce contracts. These institutions need to clearly establish the assets that can be collateralised, the protection of creditors' rights and the guarantee of swift judicial procedures, among other provisions. Therefore, when property rights are weak in jurisdictions, SMEs are more financially constrained as compared with large firms.[5]

Third, in industries with greater competitive pressure, firms' demand for credit is typically higher, while, concurrently, a greater proportion of firms are discouraged from applying for loans because of the high cost of credit and high collateral requirements. Prior to the FinTech era, for traditional lenders such as banks, the cost of extending credit to smaller businesses was much higher than that to larger firms in relation to loan sizes.

Fourth, financial regulations could require banks to keep detailed information on clients, and loan originations could also limit lending to SMEs.[6] For example, anti-money laundering regulations that mandate banks to have detailed documentation on their customers might exclude smaller and informal SMEs from the loan market.

Lastly, for traditional lenders, SMEs or start-ups that have been in operation for less than three years or that have innovative and unproven business ideas or models fall outside of banks' risk appetite.

In addition to the aforementioned factors, the following have also contributed to the lending impediment and poor financial inclusion of SMEs:

- Lack of financial infrastructure such as low SME coverage by credit bureaus/ registries to provide credit risk assessment for lenders.
- Banks' investment in due diligence is similar for both small and large loans. Therefore, although SME loan sizes are relatively small, banks tend to prioritise the supply of higher value, higher yielding loans for larger firms, leaving SMEs underserved.
- Lack of cash-flow visibility forces banks to adopt stringent collateral-based credit risk models that impede lending to SMEs without collateral.
- Higher risk weights dictated by regulations associated with SME loans, thereby raising the cost of lending.
- Prior to the FinTech era, inadequate distribution channels limited banks' efforts to reach out and service SMEs in either the physical or the digital space.

UNDERSTANDING FINTECH & RISE OF P2P LENDING PLATFORMS

The Financial Stability Board (FSB) defines FinTech as

> technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions, and the provision of financial services.[7]

Drastic changes are imminent in banking owing to the entry of FinTech start-ups and information technology (IT) companies in the banking sector. As such, banks need to embrace IT developments, adjust to consumers' new preferences for FinTech (IT-driven) products, and use FinTech to reconfigure or even reinvent their relationship banking.[8] While such financial innovations have theoretically been shown to be risky,[9] there is evidence that FinTech innovations yield substantial value to innovators.[10] Figure 2 presents the essential components of the FinTech ecosystem, namely the financial market players, and the main FinTech trends and factors influencing FinTech development.

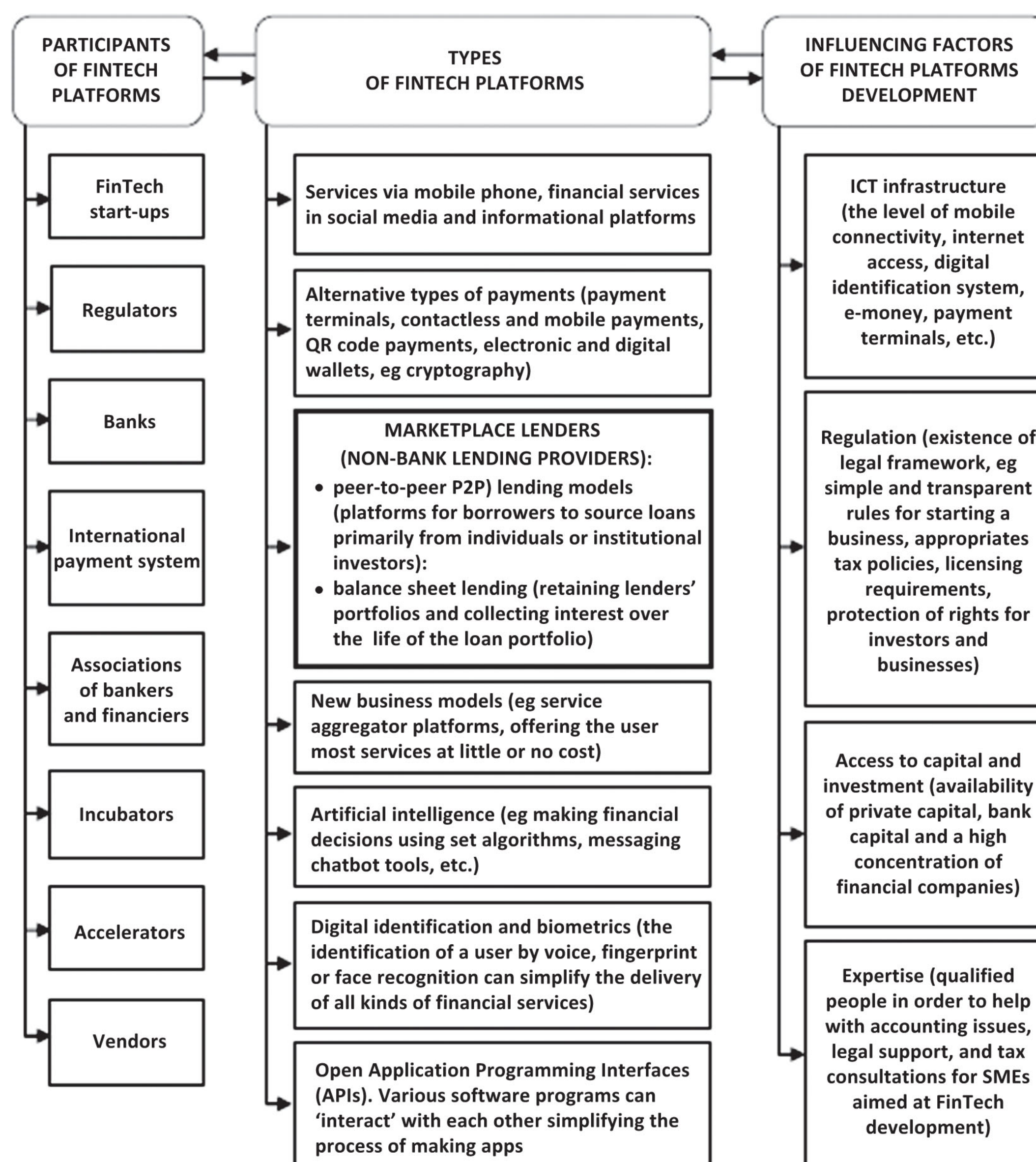

Figure 2: Theoretical approaches to FinTech platform basics.

Source: Ivashchenko, A., Britchenko, I., Dyba, M., Polishchuk, Y., Sybirianska, Y., Vasylyshen, Y. (2018) 'Fintech platforms in SME's financing: EU experience and ways of their application in Ukraine', *Investment Management and Financial Innovations,* Vol. 15, No. 3, pp. 83–96.

P2P lending platforms are a FinTech innovation, as in a 'disintermediated bank' scenario, whereby we can have credit without banks, having customers interact directly with financial services providers. *The Financial Times* reported that P2P lending companies offered to 'revolutionize credit by cutting out, or disintermediating, banks from the traditional lending process'. The Basel Committee on Banking Supervision's (BCBS's) illustration of scenarios in Figure 3 shows that FinTech plays a significant role in the future of banking, in three scenarios: 'distributed banks', 'relegated banks' and

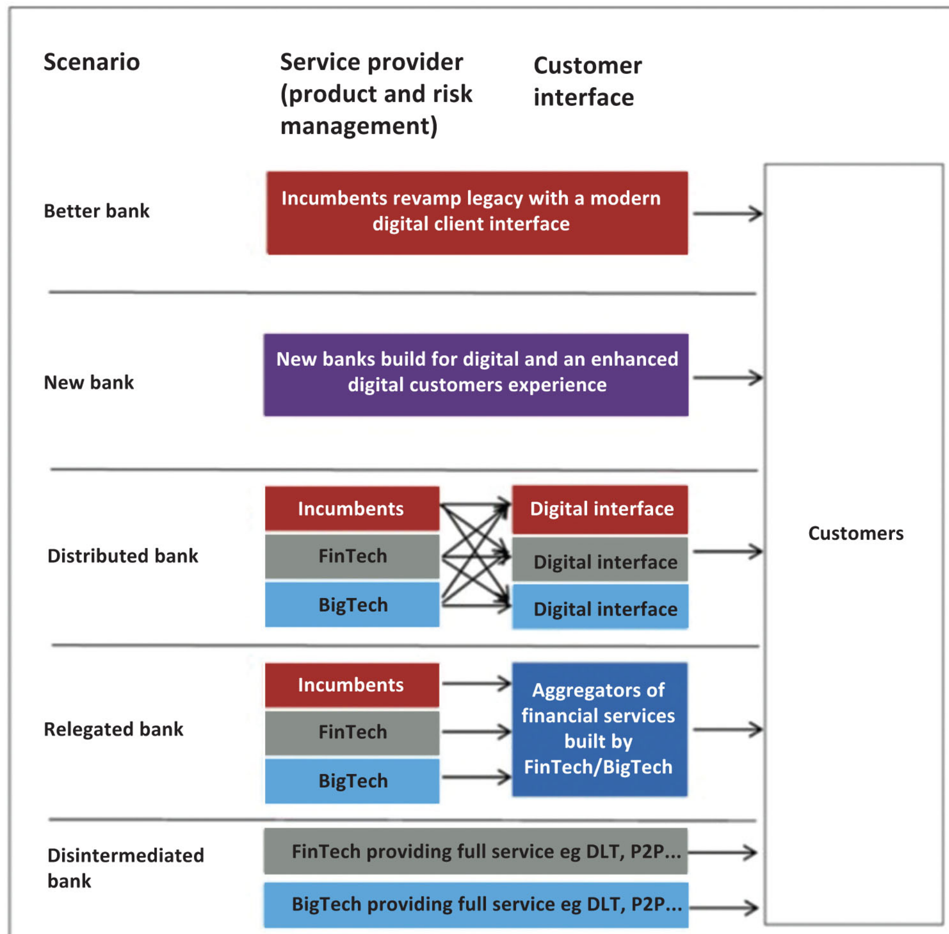

Figure 3: BCBS illustration of scenarios.

'disintermediated banks'. In reality, banking has evolved through a combination of these different scenarios, with both FinTech companies and banks owning aspects of the customer relationship while also providing modular financial services to enhance back office operations.[7]

The root of P2P platform models in finance can be traced back to two companies; the UK-based Zopa, in 2005, and the US-based Prosper, in 2006. Both platforms facilitated P2P lending, whereby borrowers and lenders transacted directly with each other through a central marketplace without any intermediary bank.

Large, well-established technology firms (BigTech firms) have Increasingly entered the financial services market. BigTech firms can partner with incumbents and act as distributors of their lending products, where such roles have been made possible and simplified through APIs. Digitalisation together with an increasing consumer base provides BigTech firms with access to a large quantity of consumer data, in particular payments data, which reveals consumer spending behaviour, allowing them to carry out data-driven risk assessments for the provision of credit. Table 1 presents an overview of financial activities provided by BigTech firms.

PEER-TO-PEER (P2P) OR MARKETPLACE LENDING MODEL AS FINTECH ALTERNATIVE FINANCING FOR SMEs

P2P lending, a hybrid of crowdfunding and marketplace lending, can be considered as a form of debt-based crowdfunding.

Table 1: Selected financial activities of BigTech firms

	Alibaba	**Tencent**	**Baidu**	**Google**	**Amazon**	**Facebook**	**Apple**	**Samsung**	**Microsoft**	**Vodafone**	**Mercado Libre**
Leading and short-term credit	MYBank (SME lending for rural areas and online merchants)	WeBank (personal micro-loans)	Baxin Bank (financial products and small loans)	Collaboration with Lending Club	Temporary financing in Amazon Lending; direct lending to merchants	Pilot in collab-oration with Clearbanc	n/a	n/a	n/a	Offered through M-Shwari mobile banking services	Mercado Crédito (small loans to retail and SME clients)

Source: Board, F. S. (2019) 'FinTech and market structure in financial services: Market developments and potential financial stability implications', Financial Innovation Network, Financial Stability Board, Basel, Switzerland.

In a 'disintermediated bank scenario' for SMEs, P2P lending platforms create a web-based marketplace whereby individuals or institutions with capital to invest are able to connect with SMEs that want to borrow and agree to advance funds to them on standardised terms set out by the platform that facilitates the transaction. This P2P lending model has a disruptive impact on the banks and financial institutions' traditional dominance in the market.

With slightly different variations, the credit evaluation and loan fulfilment process of P2P lending platforms involves:

- direct matching of lenders and borrowers via online auctions (auction-based systems) that force lenders to compete to provide funding, either by offering a 'bidding down' in a reverse or Dutch auction or matching by fixed rate and category to reach the target amount;
- platform-assisted in the collection, scoring and distribution of the credit qualifications of potential borrowers to potential lenders;
- during the loan auction process, they enable potential lenders to question borrowers (ie crowd-based due diligence) and borrowers' answers to the questions posed are usually published for all potential lenders to see;
- loans are usually 'fractionalised' between multiple lenders, whereby platforms seek to assemble loans from groups of individual lenders for deals ranging from asset finance, 30-day working capital advances, term loans (up to five years);
- platforms provide online servicing and monitoring of the loan, and frequently operate secondary markets for existing lenders who wish to sell off their share of any loan to other investors.

As for the platforms in P2P lending, their main sources of income are origination fees charged to the borrower, repayment fees charged to the lender and/or other fees like loan part trading and late fees.

GROWTH FACTORS OF P2P LENDING PLATFORMS

A number of growth factors contribute to the success of P2P lending platforms and their readiness to emerge as a significant and meaningful alternative source of funding to SMEs in an increasing number of countries in the years ahead. These are as follows:

- Alternative finance market/non-collateralised loan: they provide SMEs with greater access to credit, especially for those categories of borrowers that are unable to access bank lending owing to stringent criteria. SMEs can, through P2P lending services, find alternative lenders who can offer non-collateralised loans or lower rates of interest.
- Digital processing platform: a P2P lending platform's competitive advantage is derived from the lower transaction costs in matching financing requests and investment opportunities online and its technical innovation in improving the quality and speed of service to both borrowers and lenders. For banks or conventional credit institutions, the loan underwriting process would require a credit history or proof/documentation of income stream, requirement of asset-based collateral, and high cost/lack of credit risk assessments of SMEs. P2P lending platforms overcome such limitations by[11] (i) utilising digital footprint as a substitute for physical documents for verification and/or usage of third-party data (eg e-commerce) in order to define eligibility, which lowers operational cost as compared with conventional lending; (ii) underwriting assessment processed through a digital platform with various data points to identify typical attributes for interest rate charges without prior collateral; (iii) customised credit assessment models that utilise behavioural data to identify typical attributes for interest rate charges, supported by a large number of funding sources from retail and institutional lenders.

- Competitive rates: lenders are attracted to the higher interest rates offered on P2P platforms.[12] Often, platforms are also able to match borrowers and lenders without any interest margin since they are not holding any of the loans themselves. Furthermore, P2P platforms enable modern investors to have direct access to asset classes that were previously reserved for large institutional investors. Investors can choose to invest in a smaller quantum of many different loan types (or small pieces of many individual loans) and different asset classes of varying risk grades, thereby achieving diversification of their portfolios and risks.
- Financial inclusion: the perception of P2P lending has grown positively as a socially beneficial form of finance, since the global financial crisis of 2008. The conduct of banks before and during the financial crisis has led to a profound loss of trust in these institutions arising from their apparent reluctance to lend to smaller businesses. Since the rise of FinTech alternatives, P2P lending platforms have positioned themselves as the 'true supporters' of SMEs and entrepreneurs, strongly boosting their appeal as potential disruptors to banks.

P2P LENDERS VERSUS BANK LENDING

The main takeaways from Tang[13] and de Roure et al.[14] are cited by Thakor[15] as follows:

- P2P lenders compete with bank lending but tend to have a competitive advantage when banks experience some kind of shock that temporarily limits their credit supply. For example, following the 2008 credit crisis and subsequent tightening of regulations, the increased due diligence reduced the supply of low value loans from banks, leading to the rise of non-bank alternative P2P lending platforms.
- P2P lenders are willing to make riskier loans than banks, but despite their lower operating costs, the loans offered by P2P lenders may not be cheaper.
- P2P lenders may serve both marginal and infra-marginal bank borrowers.
- The regulations that banks are subject to also have an effect on P2P lending.

CHALLENGES OF P2P LENDING PLATFORMS

Despite its popularity and growth, P2P lending has posed several challenges. First, there are likely to be some agency costs involved with this new channel of funding.[16] We can expect, on the basis of prior research, that borrowing history has a significant impact on the success rate of loans.[17] Second, if lenders believe that there are adverse selection problems, this is likely to lead to high interest rates and low rates of success.[18] Third, there are major concerns for lending platforms with regard to loans in arrears or default. Investors in this space maintain a close watch on developments in marketplace lending, focusing on ensuring that default rates are accurately modelled and that servicing costs (for the outsourced loans) are clearly identified. Finally, another factor likely to influence the performance of P2P markets is the high risk attributed to borrowers that are unable to finance their projects to completion, leading to loans that are illiquid and cannot be withdrawn ahead of maturity.

While lenders on P2P platforms are exposed to greater risk (there is no deposit insurance and no promise of returns), these risks have, at least to date, been substantially compensated by much higher rates of return. It is also expected that with the growth of P2P lending platforms, and the creation of related debt market instruments, their regulatory oversight should be expected to increase.

TOWARDS A LARGER PURPOSE: P2P LENDING TO HELP SMEs WEATHER THE COVID-19 PANDEMIC

In view of the COVID-19 pandemic, regulatory bodies could help facilitate the growth of the FinTech sector while expanding alternative financing options for SMEs with due consideration to the interplay between innovation, new risks and the existing regulatory landscape.

A 2017 SME Financing Survey conducted by the then Spring Singapore (now known as Enterprise Singapore), prior to the COVID-19 pandemic, revealed that while Singapore SMEs had no major problems obtaining external debt financing (with a 90 per cent success rate), many other SME surveys indicated that financing is still rated as their top business concern, a perennial concern, as with SMEs everywhere else in the world. The 180,000 SMEs in Singapore play a vital role in sustaining economic growth for the country, accounting for 48 per cent of its GDP and employing about 65 per cent of its workforce. Altogether, SMEs constitute 99 per cent of Singapore's enterprises. P2P lending platforms can serve as a viable alternative finance option to help SMEs diversify their funding sources, thereby reducing their dependency on banks and perhaps facilitating a more direct access to institutional and retail investors. On the broader economic perspective, promoting alternative access to finance for SMEs could be an important contribution towards restoring economic growth and helping to overcome the current crisis.

P2P lending platforms have welfare-enhancing disruptive capabilities that need to be harnessed through regulations that are adaptable to ensure that the promised benefits of alternative financing accrue without jeopardising the stability of the financial sector.[19]

SINGAPORE'S FINTECH ECOSYSTEM, ALTERNATIVE FINANCE MARKET AND SME BANKING

Mr Ravi Menon, managing director, Monetary Authority of Singapore, at the Singapore FinTech Festival 2018, said:

> FinTech is not just about finance — … we want to empower hundreds of millions of people to participate in the modern economy. … Everything we do in FinTech must always have a larger purpose — to improve the lives of individuals, to build a more dynamic economy, to promote a more inclusive society,[20]

According to consultants and universities, Singapore is among the top 10 global FinTech hubs. The Institute of Financial Services Zug (IFZ) at the Lucerne University of Applied Sciences (HSLU), which evaluates the performance of FinTech ecosystem centres worldwide, has ranked Singapore the leading FinTech hub in 2019, ahead of Zurich, Geneva, London, Amsterdam and Toronto. As for the Bloomberg's Innovation Index, Singapore has been ranked sixth globally.

According to the third Asia Pacific Region Alternative Finance Industry Report, published by the University of Cambridge in 2017, Singapore led in South East Asia (SEA), accounting for US$190m out of a total of US$324m of SEA's online alternative finance market volume. This represented an increase of more than 2,000 per cent since 2013.

Despite the COVID-19 pandemic crisis, total equity funding reached a record high of SGD 462 million in January-June 2020 Year-to-date (YTD), according to a BCG FinTech Control Tower (FCT) analysis of FinTech equity funding data. The increase in investments is led by FinTechs in the SME banking and technology business lines, which rose by ~210 per cent and ~180 per cent,

respectively, over the same period the year before. From a product vertical perspective, payments and lending drove a significant proportion of the increase in SME banking. In total, the SME banking and technology business lines attracted ~SGD 288 million, which accounted for ~60 per cent of the total equity funding to date in the first half of 2020.

EMPOWERING SINGAPORE'S SMEs: FINTECH P2P LENDING TO OVERCOME CRISIS

Through the years, Singapore's SMEs have had the benefit of strong government support for their financing needs through various programmes such as SME working capital loans, the enterprise financing scheme, the trade loan program and the loan insurance scheme. Even since late January 2020, when COVID-19 first surfaced, the Singapore government has pumped in nearly SGD 100 billion, via four budgets, to support its trade-reliant economy that has been battered by plunging overseas demand, disrupted by supply chains and restrictions on international travel. As further assistance, the Singapore government could consider enhanced measures to address the longer term challenge of helping SMEs to access alternative FinTech financing, thereby achieving twin objectives: empowering the SMEs to embrace the digital renaissance, as well as enabling a promising recovery and a positive future that will ensure their viability post pandemic. Addressing the concerns of SMEs is highly important to the economy and will drive the next phase of growth.

Small SMEs remain informal in terms of documentation and compliance. Formalising SMEs would improve their access to bank credit, but only slightly. From a 2019 survey,[21] 91 per cent of the rejected SME bank loan applications were due to small revenues (35 per cent), new start-ups (30 per cent), poor financial performance (14 per cent) and lack of minimum local shareholdings (12 per cent). The remaining 9 per cent of rejected SME loan applications were due to 'other credit adverse reasons'; for example, the lack of documentation and compliance. For small and informal SMEs, the cost of compliance to qualify for bank credit is typically too high, and therefore they look to alternative forms of finance.

Struggling SMEs need liquidity most urgently. In 2019, 61 per cent of SMEs in Singapore did not qualify for a bank loan mostly owing to financials, while P2P lending platforms accounted for only 11 per cent of the total loans supplied during this period.[21] This indicates that there is a market for P2P lending platforms to step in and supply much needed financing to the underserved SMEs.

Building on the number of measures already rolled out, the Singapore government can play a crucial role in regard to both the immediate and the longer term objectives of providing the assistance much needed by SMEs. The following recommendations may be considered:

- Inclusion of accredited FinTech alternative P2P lenders: in the existing economic stimulus measures such as the enhanced SME working capital loan, the temporary bridging loan and enterprise financing scheme; the trade loan program for Singapore-based enterprises.[22] Where SMEs do not qualify because of a lack of track record or the small size of loans, these FinTech P2P lending platforms will be able to step in to finance the SMEs, while sharing the risk of lending through government sources of funds. Government funds can be lent through P2P lenders, strengthening the credibility of this young industry.
- Extension of funding support for FinTech P2P lending platforms: To the extent

applicable, the Singapore government could provide funding support by dollar-for-dollar matching liquidity access for FinTech P2P lenders at low cost. For example, if P2P platforms manage to lend to Singapore SMEs a total sum of USD $x million over the qualifying period of one year (October 2020 to October 2021), the government will also provide funding to P2P lenders of USD $x million (drawdown from the government on a quarterly basis) at low cost.

- Incentivise SMEs' digital adoption in FinTech alternative financing: Incentives that may be considered include direct subsidies or tax allowances, ranging from 100 per cent to 400 per cent on interest on loans or loan insurance from FinTech P2P platforms.

The foregoing suggested measures could work as an effective way of allowing P2P lending platforms to continue serving SMEs by tapping alternative sources of funds, leveraging on their digital capacity and providing speed and efficiency for the disbursement of loans as time is of the essence for SMEs' survival. Such enhanced measures can go a long way towards keeping SMEs afloat, and preserving capabilities, while giving SMEs the best chance of emerging stronger and staying competitive and relevant when the global economy recovers. Although there is a risk of giving rise to 'zombie companies',[23] the Singapore government can factor in control measures to mitigate such situations and make adjustments to their schemes and programmes as and when necessary.

LESSONS LEARNED

While considering the foregoing suggested measures, we should keep in mind the lessons learned and the several elements mentioned by Lin Lin,[24] in the case of Singapore, when seeking to engineer a robust FinTech sector. The government should continue to provide (i) an effective financial infrastructure, from credit databases to payment systems. Drawing on the strength of FinTech financial innovators, the development of new sources of data to aid in assessing credit risk where traditional public credit databases are not available would be critical financial infrastructure (eg credit bureau, credit risk databases or asset registries) to be provided in enabling credit flow to SMEs; (ii) a clear and effective regulatory framework that governs key financial intermediaries, regulations addressing legal, regulatory and accounting uncertainties, and continued support for the design of innovative products via accelerators, innovation hubs and regulatory sandboxes; (iii) a healthy ecosystem where there is sufficient venture funding with a healthy exit environment, and vibrancy of the FinTech alternative financing such as P2P lending platforms to ensure growth of the FinTech sector and risk diversification of SME funding sources.

SMEs account for 90 per cent of businesses worldwide and account for nearly 40 per cent of GDP in emerging markets.[25] The International Finance Corporation (IFC) estimates that 40 per cent of formal SMEs in developing countries account for a financing gap of USD $5.2 trillion annually, with Asia Pacific having the largest share of the global financing gap (46 per cent), followed by South America (23 per cent) and Central Asia (15 per cent).

The lessons learned in Singapore can be of global relevance. A study by Oh and Rosenkranz[26] of P2P lending in 62 countries concluded that P2P lending to SMEs expands more in countries where (a) high financial literacy prevails, (b) an effective financial infrastructure is in place, (c) there is a high density of new company start-ups exists and (d) SMEs face barriers to accessing bank credit.

CONCLUSION

Given the importance of SMEs to national economies through their significant contributions to employment and GDP, helping them to access alternative financing options in order to survive the COVID-19 pandemic plays a pivotal role in strengthening

economic recovery. Where measures are in line with government policies and strategic aims, harnessing the strength of FinTech financial innovations, such as P2P lending platforms, as a means for SMEs to access alternative sources of financing is worth considering in order to enable them to stay afloat and be relevant and well equipped for financial stability and growth.

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