



Special Series on COVID-19

The Special Series notes are produced by IMF experts to help members address the economic effects of COVID-19. The views expressed in these notes are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

May 8, 2020

Considerations for Designing Temporary Liquidity Support to Businesses

Phakawa Jeasakul¹

This note discusses key considerations for designing temporary liquidity support to otherwise viable businesses to allow them to continue operations during the COVID-19 pandemic. Several countries have put forward temporary liquidity support schemes with different design approaches, including credit guarantees and subsidized term funding, as well as creation of vehicles to acquire loans. Such support usually targets small and medium-sized enterprises (SMEs) as they are often seen as being at greater risk of financing difficulty. This note discusses key challenges faced by firms in obtaining credit during this difficult time and how country authorities can design liquidity support schemes to provide bridge financing for solvent but illiquid firms.

This note does not tackle the bigger question of whether, and how, to support the corporate sector in a way that helps it ride out the storm without undermining the economy's warranted adjustment to the post-pandemic realities. This note also does not cover the design of credit guarantee schemes to address SME's difficulty in obtaining financing in normal time and the design of central banks' liquidity support to address the dysfunction of core funding markets.²

LIQUIDITY CHALLENGES FACED BY FIRMS DURING THE PANDEMIC

The pandemic has caused both liquidity and solvency problems in the corporate sector. A pure liquidity problem arises when incoming cashflows envisaged for today will be delayed until tomorrow. A pure solvency problem is associated with a lack of long-term viability. In reality, it is not always clear cut to

¹ For more information, contact Phakawa Jeasakul (pjeasakul@imf.org) of the Macroeconomic Surveillance and Review Division of the Monetary and Capital Markets Department.

² The term 'liquidity support' typically refers to central banks' liquidity provisions to financial institutions and/or financial markets. In this note, this term refers to liquidity support to viable businesses.

distinguish liquidity problems from solvency problems. And in a crisis like the COVID-19 pandemic, it is particularly difficult to make this distinction.³ For many firms, the pandemic has induced liquidity pressures and operating losses; the latter have weakened their solvency. The long-term business viability essentially rests on firms' ability to recover quickly from the crisis—both operationally and financially. Some industries will face fundamental changes in demand for their products and services (e.g., business travel may see some permanent drop in favor of virtual meetings); others may continue to face supply-chain disruptions.

Firms require access to liquidity to meet their working capital needs and financial obligations, and to stay alive. The pandemic has induced supply-side disruptions and depressed aggregate demand, and the 'lockdown' measures have shut down many businesses temporarily. The sudden, substantial loss of revenues has caused significant liquidity stress on businesses. Even if they remain viable in the long term, businesses need liquidity to survive through the crisis. In response to falling revenues, firms have cut employment and delayed capital spending to contain their expenses. Where possible, firms have drawn on existing credit lines from banks, sought debt restructuring (including repayment moratoriums) from their creditors, and tapped on available funding support schemes (e.g., subsidized and guaranteed lending).

Many viable firms, especially SMEs, are facing financing difficulties. Banks have become less willing to provide additional financing to firms because of their deteriorating balance sheets, the dim economic outlook, and the increased uncertainty. Moreover, banks' ability to lend could soon become constrained as credit losses deplete their capital buffers. Market-based finance faces similar challenges: flight to quality has contributed to a spike in corporate bond yields, especially of securities with speculative grades. SMEs will likely be at greater risk: they typically have less room to maneuver (e.g., a less diversified business), tend to have a lower earnings capacity to service debt (this was the case even before the pandemic), and lack collateral that can be used to secure additional financing.⁴

Policy responses to address the financing difficulties have aimed at alleviating credit intermediaries' credit risk concerns and balance sheet constraints. The challenges are three-fold. First, credit risk associated with lending has increased, especially for financially weak firms. Governments in many countries have responded by providing or extending credit guarantees—directly or indirectly through existing public schemes (including development banks)—to help limit creditors' potential credit losses. Second, many lenders—banks and nonbank entities alike—are facing funding constraints and higher funding costs, which in turn may reduce their lending capacity. In response, many central banks have cut policy rates and/or embarked on quantitative easing (particularly, in the presence of the zero-lower bound). Some central banks have provided system-wide liquidity, some of which has helped finance liquidity support schemes for businesses. Third, banks, as well as other lenders, that are experiencing deteriorating balance sheets or asset qualities may face capital constraints. Country authorities have emphasized that banks can use their capital (and liquidity) buffers, and, where relevant, have clarified prudential implications of the government programs (e.g., the portion of exposures that receive public guarantees can use zero risk weight such as Paycheck Protection Program (PPP) loans in the United States).⁵

³ As a result, country authorities have employed a myriad of measures that alleviate liquidity pressures and reduce financial burden (and thus improve corporate solvency conditions). See [RES note on "Are Standard Macro and Credit Policies Enough to Deal with the Economic Fallout from COVID-19?"](#) for a more complete discussion of policy measures to support SMEs.

⁴ Relative to larger firms, SMEs' borrowings are typically more collateralized because their financial information is less transparent and their collateral valuation is more sensitive to shocks; see [Brandao-Marques, Gelos and Melgar \(2018\)](#).

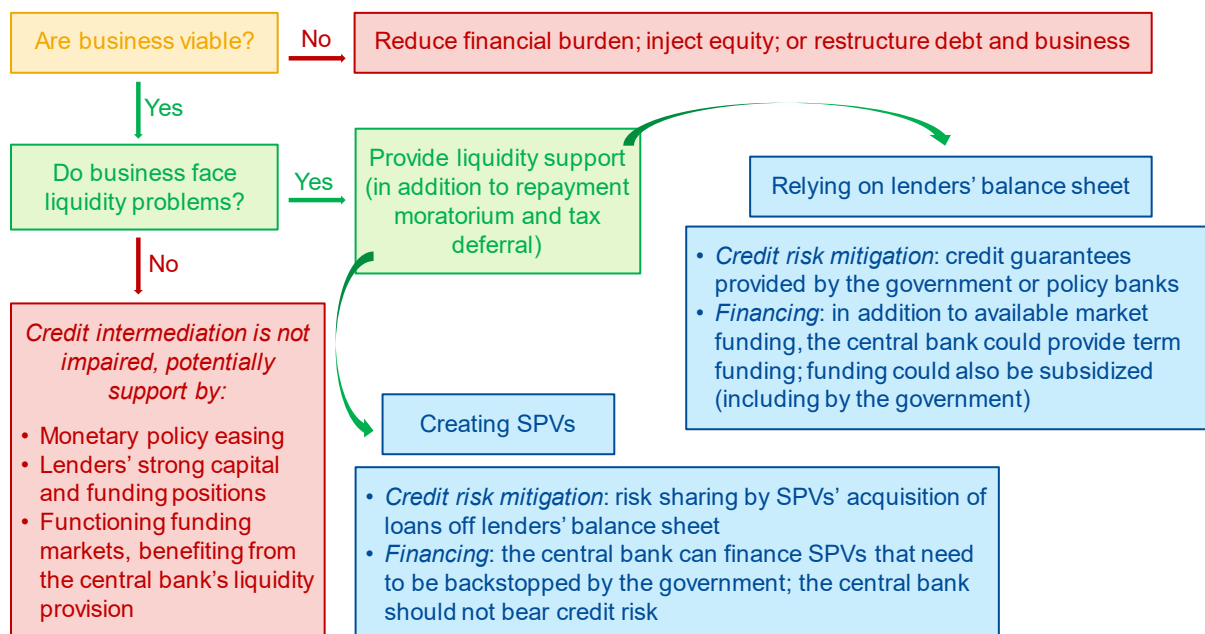
⁵ See [MCM note on "Banking Sector Regulatory and Supervisory Response to Deal with Coronavirus Impact \(with Q and A\)"](#) for further discussion about prudential issues.

Many countries have taken or are planning to take steps to support firms' access to financing. Such measures aim at providing temporary bridge financing to support the continued operation of businesses. For example, in the United States, the Federal Reserve plans to launch the Main Street Business Lending Program, which sets up a special purpose vehicle (SPV), partly backed by the Treasury,⁶ to acquire corporate loans extended by banks under the program. In the euro area and the United Kingdom, the central banks have provided term funding to banks to lend to firms and households. Such lending is supported by credit guarantees provided by governments and existing public schemes.⁷ In many emerging market economies, the authorities have set up or are contemplating financing programs and credit guarantee schemes to provide liquidity support to businesses, with a greater attention to SMEs. In addition, where market-based finance is important, central banks have purchased corporate commercial papers and bonds, as well as asset-backed securities that support business financing (e.g., the United Kingdom and the United States).

THE DESIGN OF LIQUIDITY SUPPORT SCHEMES

Broadly speaking, liquidity support tends to be extended under two approaches, through lenders or via special purpose vehicles (SPVs) (Figure 1). The common features of liquidity support schemes include credit risk mitigation provided by governments and funding support, where appropriate, from central banks. Countries tend to adopt the approach that suits their circumstances taking into account factors such as (i) the current pressure points where financing difficulties are the most pronounced, (ii) the existence of public credit guarantee schemes, and (iii) the central banks' mandates and powers, including their lending practices to financial institutions and their ability to purchase risky assets.

FIGURE 1. How to Provide Liquidity Support to Businesses



⁶ The Treasury provides US\$75 billion as an equity tranche for the scheme to absorb first losses.

⁷ In the European Union, credit guarantees were initially expanded under the existing European Investment Bank's operations; the European Investment Bank subsequently proposed to create a European Guarantee Fund. Furthermore, national governments and schemes in the European Union have provided credit guarantees. In the United Kingdom, the government created new schemes to be operated by the (state-owned) British Business Bank.

The two general approaches can be summarized as follows:

- **Schemes that rely on lenders' balance sheet.** Under this approach, lenders play a leading role in channeling liquidity support to businesses. Lenders' credit risk is typically mitigated by the public credit guarantee schemes.⁸ Furthermore, lenders may benefit from term funding provided by central banks or government subsidy on funding costs. Loans to business are still subject to prudential requirements. This is the approach taken by the euro area and the United Kingdom among others.⁹ Many emerging market economies have also adopted some elements of this approach by setting up financing programs and credit guarantees.
- **Schemes that operate via SPVs.** Under this approach, SPVs are created to acquire credit extended by lenders according to the prescribed conditions.¹⁰ Typically, the central banks create and finance these SPVs whose losses are largely backstopped by the governments.¹¹ Lenders' credit risk is mitigated as part of the loans are sold to the SPVs. Remaining loans on lenders' balance sheet remain subject to prudential requirements. This is the approach taken by the United States,¹² as well as the United Kingdom (i.e., the COVID Corporate Financing Facility).¹³ Korea recently announced a scheme with features that broadly fit with this approach.

A successful liquidity support scheme needs to address several challenges. The scheme needs to: (i) address credit risk mitigation for lenders, (ii) ensure robust risk sharing mechanisms between lenders and the scheme, (iii) target firms that need liquidity support, (iv) alleviate firms' liquidity pressures, (v) secure financing to fund the scheme, and (vi) clarify prudential implications. These aspects are discussed more fully as follows:¹⁴

- **Credit risk mitigation.** Amidst increased credit risk, lenders—even with available funding and ample capital buffers—are reluctant to lend to firms in financial difficulties. For the schemes that rely on lenders' balance sheet, credit guarantees can help mitigate credit risk faced by lenders. Governments can provide credit guarantees directly or indirectly through existing public schemes (including development

⁸ The Bank of International Settlements' [FSI Brief No 5](#) discusses public guarantees for bank lending in response to the pandemic.

⁹ In the euro area and the United Kingdom, liquidity support schemes build on the existing credit guarantee schemes operated by development banks and the central banks' term funding schemes (i.e., the Bank of England's Term Funding Scheme with Additional Incentives for SMEs and the European Central Bank's Targeted Longer-term Refinancing Operations). In some euro area countries, development banks also provide funding to lenders.

¹⁰ The central bank facilities that purchase corporate commercial papers and bonds, as well as asset-backed securities that support business financing, can be categorized as the SPV-based approach. Though, there are no lenders. The central banks typically acquire eligible securities via government-backed SPVs. These central bank facilities are designed to address the dysfunction of core funding markets that are instrumental to finance economic activity. See [MCM note on "Central Bank Support to Financial Markets in the Coronavirus Pandemic"](#) for further discussion.

¹¹ In the case of the United Kingdom, the government will fully absorb losses from the Bank of England's COVID Corporate Financing Facility. In the case of the United States, the government only take first losses based on its equity position in various schemes operated by the Federal Reserve.

¹² The Federal Reserve cannot purchase risky assets. Besides its discount window, which provides funding only up to 90 days, the Federal Reserve does not operate any term funding scheme. More recently, the Federal Reserve has encouraged financial institutions to use the discount window, which is typically come with some stigma. Hence, the SPV-based schemes seem to work better in the case of the United States.

¹³ The facility was set up to purchase corporate commercial papers directly from issuers. As also noted in Footnote 10, the facility was designed to provide liquidity support to large financially sound businesses amidst the dysfunction of core funding markets.

¹⁴ Annex I provides detailed information of liquidity support schemes for businesses in Singapore and Switzerland, and the United States.

banks), and the fiscal implications are acknowledged accordingly. Credit guarantees should be commensurate with the credit risk faced by lenders—e.g., a greater protection is required for unsecured loans, which may be needed to overcome the limited availability of collateral. In contrast, credit risk would be transferred from lenders to the SPVs under the SPV-based schemes. In turn, governments should cover credit losses that the SPVs may incur. In normal times, credit guarantees should be priced properly; however, during this crisis, governments should provide or subsidize such credit guarantees.

- **Risk sharing mechanisms.** Lenders need to bear some credit risk associated with their lending so that they have incentives to perform sound underwriting practices and take efforts to minimize credit losses. The credit risk mitigation should thus be partial. In the case of SPVs that acquire a portion of loans, lenders share losses from the first dollar. Credit guarantee schemes may cover credit losses up to a certain amount before lenders start incurring losses. Nevertheless, they can be designed to have proportional risk sharing similar to the SPV-based schemes. Credit guarantees for lenders are not necessary for the SPV-based schemes but could be used to minimize the SPVs' credit losses.
- **Eligibility criteria.** Although the distinction is not easy to make, liquidity support should aim at targeting solvent but illiquid firms.¹⁵ Firms should be required to demonstrate their difficulty (i.e., the pandemic has reduced their revenues) and their financing need, which may include contractual repayment obligations and payroll and other necessary expenses (e.g., rent and utilities). However, funds should not be used for making early repayments of existing debt. In many countries, the schemes typically require that firms make a significant contribution to the economy. To make sure support is provided to viable firms, eligibility criteria could be set to on firms' financial strength—e.g., total borrowing may not exceed certain multiples of income, or operating profits should exceed financial expenses. In some countries, eligibility criteria are based on firms' creditworthiness prior to the crisis; support is extended to the so-call 'fallen angels'. That being said, it is hard to know which firms are true falling angels that will be viable after the crisis, and there is risk that liquidity support will prolong the restructuring and/or bankruptcy processes, potentially undermining the economy's needed adjustment to new post-crisis realities.
- **Financing terms.** The amount of liquidity support should be ample enough to allow the firms to cover their financing needs and manage through the crisis. The maturity and repayment structure of the loans should be sufficiently long and designed so as to support the firms' recovery. Firms should be given sufficient time before the first repayments start (e.g., at least until businesses return to normal). Firms should have flexibility to make early repayments, with no penalty. Interest rates, in principle, should be set on a commercial basis but could be subsidized using fiscal resources. Lenders could be allowed to attain lending margins based on borrowers' risk profile to encourage their lending under the schemes. The determination of interest rates also needs to account for credit risk protection, as well as funding costs of lenders and SPVs. In any case, lending rates should not be lower than what prevailed before the pandemic stress; some penalty should be imposed over time to encourage firms to return to commercial funding sources. As the provision of liquidity is the policy objective, lending should come with minimal requirements—e.g., no collateral and/or personal guarantees are required. Meanwhile, firms should be subject to restrictions on profits distribution (i.e., dividends and bonuses) and shares buyback until the loans are fully repaid.

¹⁵ There could be three types of firms—first, viable firms that do not need liquidity support; second, viable firms that face liquidity stress; third, unviable firms that cannot be saved by temporary liquidity support. The liquidity support schemes should aim to target the second type of firms. Ideally, business viability should be determined on a forward-looking basis. In practice, such determination is challenging and especially so in the current environment with elevated uncertainty about the future. This crisis will likely lead to some permanent changes to supply and demand patterns and many firms that were viable before the crisis may not be viable again after the crisis.

- **Funding sources.** In principle, central banks are the only institutions that can provide unlimited amounts of liquidity in a prompt manner.¹⁶ Hence, they are best placed to finance the liquidity support schemes as long as such action is consistent with their mandates and they are protected from potential losses. At the same time, central banks should take a prudent approach to credit risk and provide financing only if secured with collateral with appropriate haircuts (determined by the central banks). Where their taking on credit risk is considered too excessive, central banks should request governments to indemnify their financing of the schemes. For the schemes that rely on lenders' balance sheets, central banks can provide term funding to eligible financial institutions; though, such term funding schemes are rare in emerging market economies. Term funding could be provided at the costs consistent with the policy rates (potentially below market funding costs). In countries where central banks do not provide term funding, governments could consider subsidizing lenders' funding costs. The subsidy should only aim to offset increased funding costs due to financial stress. For the SPV-based schemes, central banks can fully finance the government-backed SPVs' acquisition of loans (taking the SPVs as collateral). This approach is also more flexible as the SPVs can purchase loans as prescribed by the schemes potentially from any lender.¹⁷
- **Prudential treatment.** Credit guarantees would typically have a favorable impact on estimated loan losses, provisioning, and capital requirements. For example, the sovereign risk weight can be used for the portion of loans that receive government credit guarantees. However, authorities should not use regulatory requirements to direct credit flows to particular sectors (e.g., favorable regulatory treatments for lending to SMEs).
- **Exit strategy.** The schemes should be time-bounded, with explicit dates when access to the schemes will be ceased. The eventual exit would be set by the maturity of lending to businesses and term funding provided by central banks. Credit guarantees and sovereign backstopping should only last until when loans under the schemes mature. The exit plan should be made clear upfront to prevent subsequent political pressures to prolong these temporary schemes that are designed to provide liquidity support to this unique crisis.

The overall design of the liquidity support schemes will have to depend on country circumstances.

The considerations discussed above provide broad guidance, but the design will need to take into account country specifics. For example, the choice between the reliance on lenders' balance sheet or the creation of SPVs could rest on factors such as the existence of credit guarantee schemes and the significance of nonbank lenders. Multiple schemes could be created to meet specific characteristics of corporate financing. In particular, large firms may rely heavily on market-based finance, while SMEs depend on bank loans that are typically secured. Eligibility criteria for firms could thus be set appropriately based on their size (e.g., workers and turnover).

A challenge for any design is to balance providing effective support to firms against limiting moral hazard and minimizing administrative and logistical burdens. Generous liquidity support schemes with a loose design could channel funds to unviable businesses or enable firms to use funds inappropriately (e.g., paying off existing debt early). On the other hand, too strict eligibility criteria and financing terms may undermine the schemes' ability to provide effective support. The specificity of eligibility criteria

¹⁶ Large-scale liquidity support schemes may not be possible to set up if public debt would be perceived to become unsustainable or if the central bank (and the monetary policy framework) lacks the credibility.

¹⁷ Where nonbank lenders play an important role in credit intermediation, the schemes that rely on lenders' balance sheet may not be sufficiently effective. Nonbank lenders may not have access to the central banks' facilities, including term funding schemes.

(including demonstrated financing needs) could create administrative and logistical burdens (e.g., costly verification), which may in turn delay the operationalization of liquidity support. Nevertheless, standard practices to control monetary laundering and terrorist financing risks should remain in place.

The success of liquidity support schemes rests on the combination of the use of the government budget and the central bank’s financing prowess. The costs associated with the schemes (particularly, credit losses that the schemes assume from lenders) should be borne by governments. Fiscal costs and risks should be recognized as an important parameter of the program design.¹⁸ On the other hand, central banks should be willing to finance the schemes as long as such action is consistent with their mandates and is protected from potential losses. To safeguard their independence and credibility, central banks should articulate how their financing of the liquidity support schemes is aligned with their policy objectives and powers. There could be some temptation to seek a market-based financing solution such as securitization of SPVs’ assets; however, if such markets do not already exist, this could prove to be very challenging to appropriately design the risk pricing and transfer of securitization and to successfully attract investors.

¹⁸ See [FAD note on “Keeping the Receipts: Transparency, Accountability, and Legitimacy in Emergency Responses”](#) for further details about fiscal governance.

ANNEX I. DESIGN OF SELECTED LIQUIDITY SUPPORT SCHEMES FOR BUSINESSES

	Singapore ¹⁹	Switzerland	United States ²⁰
Overall approach	Use of lenders' balance sheet.	Use of lenders' balance sheet.	Create SPVs to acquire loans from lenders.
Risk sharing mechanisms	The government guarantees credit losses up to 90 percent.	The government fully guarantees loans up to CHF 0.5 million and guarantees credit losses up to 85 percent for loans exceeding CHF 0.5 million.	The SPVs acquire 95 percent of loans from lenders under the Main Stress New Loan Facility and the Main Street Expanded Loan Facility. The SPV acquires 85 percent of loans from lenders under the Main Street Priority Loan Facility.
Firms' eligibility criteria	SMEs with physical presence in Singapore and at least 30 percent local ownership For the Temporary Bridging Loan Program, there are no additional criteria. For the SME Working Capital Program, SMEs must have up to SGD100 million in revenues or 200 workers. For the SME Trade Loan Program, SMEs must have up to SGD 500 million in revenues.	SMEs with turnover below CHF 500 million. Firms must demonstrate that their turnovers have declined due to the pandemic. Firms are not in bankruptcy proceedings. Loans may be used only to bridge liquidity shortfalls (current expenditures are included). Loans cannot be used for investment or profit distribution.	SMEs with either up to 15,000 workers or up to US\$5 billion in annual revenues. For the Main Street New Loan Facility and the Main Street Expanded Loan Facility, firms' outstanding and undrawn debt (including Main Street loans) do not exceed 4 times of their EBITDA. For the Main Street Priority Loan Facility, firms' outstanding and undrawn debt (including Main Street loans) do not exceed 6 times of their EBITDA.
Financing terms	For the Temporary Bridging Loan Program, the size of loans is up to SGD 5 million; lending rates are capped at 5 percent; and the maximum repayment period is 5 years. For the SME Working Capital Program, the size of loans is up to SGD 1 million; and the maximum repayment period is 5 years. For the SME Trade Loan, the size of loans is up to SGD 10 million; and the maximum repayment period is 1 year.	The size of loans is up to 10 percent of firms' annual turnover, with a cap at CHF 20 million. The repayment period is 5 years and can be extended to 7 years in some circumstances. For loans up to CHF 0.5 million, the interest rate is zero, and no collateral is required. For loans exceeding CHF 0.5 million, the interest rate is 0.5 percent on the portion guaranteed by the	The maturity of loans is 4 years, with no payment of principle and interest in the first year. Lending rate is based on (1-month or 3-month) LIBOR plus 300 basis points. For the Main Street New Loan Facility and the Main Street Priority Loan Facility, the size of loans is up to US\$25 million, subject to the leverage limit (see above). For the Main Street Priority Loan Facility, the size of loans is up to US\$200 million and 35

¹⁹ There are three programs. The Temporary Bridging Loan Program was introduced in response to the COVID-19 pandemic. The SME Working Capital Program and the SME Trade Loan Program were enhanced on the existing schemes.

²⁰ This refers to the Main Stress Business Lending Program. There are three facilities: the Main Stress New Loan Facility, the Main Street Priority Loan Facility, and the Main Street Expanded Loan Facility.

	Singapore	Switzerland	United States
Financing terms (continued)	There are no caps on lending rates for the other two programs. SMEs may opt to defer principal payments on their secured loans up to end-2020, provided that lenders satisfy with SMEs' collateral.	government. Banks are allowed to charge a modest interest and request collateral for their portion.	percent of existing and undrawn debt, subject to the leverage limit (see above).
Funding sources	Banks and other lenders can obtain low-cost funding through a new Monetary Authority of Singapore's Singapore Dollar Facility for loans granted under the schemes until end- March 2021.	Banks have access to the Swiss National Bank's COVID-19 refinancing facility, which provides unlimited liquidity at the interest rate of -0.75 percent, secured by loans guaranteed by the government and cantons.	The Treasury provided an equity investment of US\$75 billion equity in the SPVs, which can acquire loans up to US\$ 600 billion. The Federal Reserve provides financing to the SPVs where its loans are secured by all assets of the SPVs.
Prudential regulation		The countercyclical capital buffer was released. The leverage ratio requirement was relaxed.	The leverage ratio requirement was relaxed (for some lenders).
Exit	The schemes will operate until end-March 2021.	Loan applications must be submitted by end-July 2020.	The SPVs will cease to acquire loans at end-September 2020.
Additional details		There is a central body to check all loan agreements for compliance with the requirements and for potential duplication. Information is cross-checked against tax data.	Participating firms should make reasonable efforts to maintain its payroll and employment during the time that loans remain outstanding.