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Monetary and Capital Markets Department

CHILE

CENTRAL BANK SERVICES FOR NONBANK FINANCIAL INSTITUTIONS

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GLOSSARY

BCCh	Banco Central de Chile
CCP	Central Counterparty
CMF	Financial Markets Commission (Comisión para el Mercado Financiero)
CSD	Central Securities Depository
CU	Credit Union
DCV	Depósito Central de Valores S.A.
DVP	Delivery-versus-Payment
ELA	Emergency Liquidity Assistance
FMI	Financial Market Infrastructure
IMF	International Monetary Fund
MOU	Memorandum of Understanding
NBFI	Nonbank Financial Institution
OTC	Over-the-Counter
RTGS	Real-Time Gross Settlement
SBIF	Superintendence of Banks and Financial Institutions (Superintendencia de Bancos e Instituciones Financieras)
SDF	Standing Deposit Facility
SDL	Standing Lending Facility
SSS	Securities Settlement System

PREFACE

At the request of the Banco Central de Chile (BCCh), a Monetary and Capital Markets Department mission visited Santiago from December 11 to 19, 2018.[1] The purpose of the mission was to support the BCCh in developing a policy for the provision of selected central bank services, including emergency liquidity assistance (ELA), to nonbank financial institutions (NBFIs). Towards that objective, the mission:

- Reviewed current BCCh policies on access to payment services, ELA, intraday and overnight liquidity, and the deposit facility for Nonbanks.
- Conducted a benchmark exercise to gauge current global practices with particular emphasis on a range of relevant countries, such as Australia, the Euro Area, Mexico, Switzerland, the United Kingdom, and the United States.
- Developed an assessment framework to evaluate how access impacts monetary policy implementation, financial stability, economic efficiency and market neutrality, and costs and risks for the central bank.
- Applied the assessment framework to the financial sector context in Chile and provided recommendations for different types of NBFIs.

The mission met with BCCh's board members and senior management and key staff of the Financial Markets Commission (CMF); Superintendence of Banks and Financial Institutions (SBIF); deferred settlement system provider ComBanc; central counterparties ComDer and CCLV; and the Depósito Central de Valores S.A. (DCV) which engages in the custody and settlement of securities. The mission also met with representatives from banks, brokers, mutual funds, and the largest credit union.

The mission would like to express its utmost appreciation to the BCCh for the excellent arrangements and cooperation, and warm hospitality extended to it during the period.

[1] The mission comprised of Darryl King (mission chief), Mark Buessing-Loercks, and Froukelien Wendt.

EXECUTIVE SUMMARY

The BCCh is considering broadening access to its services beyond commercial banks and some Financial Market Infrastructures (FMIs). The services include settlement accounts, intra-day liquidity, standing deposit and lending facilities, and eligibility for ELA. Banks have always had access to these services, while Central Counterparties (CCPs) and the Securities Settlement System (SSS) were granted access to a settlement account in 2009. The BCCh is considering extending its services to various types of Nonbank Financial Institutions (NBFIs) to enable it to more closely manage and mitigate financial stability risks.

The mission emphasized the overarching requirement for *all* central bank counterparts to be *adequately regulated and supervised*, to mitigate the central bank's operational, financial, and reputational risks. Recent changes to the banking law facilitate consolidation of the banking supervisor (SBIF) into the Nonbank supervisor (CMF). This move should facilitate equal treatment across participants and reduce the prospect of regulatory arbitrage. The new architecture should ease, though not eliminate, coordination efforts between BCCh and authorities when it comes to maintaining financial stability.

The mission provided the BCCh with a framework for assessing the provision of its services to NBFIs. The assessment framework incorporates—in addition to the minimum requirements related to regulation, supervision, and oversight—four assessment categories or criteria that are closely related to a central bank's mandate: (1) monetary policy implementation; (2) financial stability; (3) economic efficiency and market neutrality; and (4) the operational costs and risks of the central bank. The mission assessed how BCCh's mandate might be impacted by granting various types of NBFIs access to its services. An overall assessment requires sound judgement to assess the tradeoffs that may arise across the different criteria. International practices were surveyed to augment the framework and gauge the underlying reasons for central banks around the world to provide facilities to NBFIs.

By applying the assessment framework to Chile, the mission recommended some minor broadening of NBFI access to BCCh services, while noting that it should have the power to provide liquidity to any Nonbank financial *sector* (i.e., sector-wide eligibility as opposed to institution specific) to contain spillovers that may otherwise threaten financial stability more generally. The recommendations for four types of NBFIs are as follows:

Financial Market Infrastructures (FMIs)

- For CCPs, the mission supports their current access to a settlement account while noting that the BCCh should extend the scope of its oversight by including CCPs and to step up coordination with the Financial Markets Commission (CMF) to ensure a consistent approach. It also recommended that CCPs have access to liquidity at the discretion of the BCCh. While the mission recognized that CCPs need access to liquidity support in extreme circumstances, the absence of an absolute commitment (i.e., a standing lending facility) is an important element in reducing moral hazard. Furthermore, it recommended that CCPs have access to a remunerated deposit facility to promote a level playing field, particularly where they face competition from offshore CCPs. The BCCh should also promote safer settlements for over-the-counter (OTC) traded bonds; in this context it may consider providing the central securities depository (CSD) with a settlement account. On the grounds of economic efficiency, the mission recommends that the BCCh considers allowing Nonbank payment service providers (subject to appropriate oversight) access to a settlement account to foster innovation.

Nonbank Deposit-taking Institutions

- Access to the full range of BCCh services should be provided to credit unions (CUs) that: (i) meet bank-like regulation, including for governance standards; (ii) compete across a broad range of banking products; and (iii) are of a sufficient size. On many fronts, CUs are similar to banks, although there may be important differences, such as asset size, complexity of service provision, concentration of customer bases, lighter-touch regulation, and perhaps lower standards of governance. Based on the assessment there seems to be a case for the largest CU (Coopeuch) to have access to all central bank services, particularly when considering the positive impact this may have on financial stability and market neutrality. However, a more detailed policy position should be formulated (e.g., one based on asset size, customer base, and product range) before such a decision is made to demarcate which CUs should have access, and which ones should not.

Broker-Dealers

- In consultation between the CMF, when the BCCh is satisfied that regulation and supervision is sufficiently robust to address key risks, the mission recommends that broker-dealers be provided access to settlement accounts to facilitate settlement of securities transactions in central bank money. In doing so, the links between broker-dealers and banks are reduced, which is positive from a financial stability standpoint. Conversely, it recommends that broker-dealers should not be provided access to liquidity operations given that it may incentivize greater risk taking with a consequent increase in financial stability risks. In the future, the case could be made for broker-dealers to have access to BCCh liquidity operations, although the bar here is very high, requiring compliance with bank-equivalent capital, liquidity and leverage regulation and augmented with a systemic test.

Mutual Funds, Insurance Companies, and Pension Funds

- Consistent with international practices, the mission recommends that none of these sectors be granted access to BCCh services as they are *users*, and not *providers,* of payments services. If the central bank were to provide access to a settlement account, and intra-day and overnight liquidity facilities, it would compete with private sector entities, thereby undermining the incentives for innovation—an economic efficiency argument—while also increasing the operational costs and risks of the central bank.

Table 1. Key Recommendations

Recommendations and authority responsible for implementation	Priority	Time frame [1, 2]
Establish an access policy for different NBFI sectors on the basis of an assessment framework that uses specific criteria for measuring the costs and benefits of the provision of services (BCCh).	High	Short
Ensure, without exception, the application of minimum regulatory requirements (i.e., all central bank counterparts must comply with *appropriate* regulations through adequate supervision) (BCCh, CMF).	High	Medium
Modify the Organic Law of the BCCh to allow for the provision of facilities/ELA to NBFIs in line with the recommendations below (BCCh).	High	Medium
(1) Financial market infrastructures		
Establish an ELA-type arrangement (not a facility) for CCPs (BCCh).	High	Medium
Provide the CCPs with access to a remunerated deposit facility to enhance a level playing field (i.e., where CCPs face competition) (BCCh).	High	Medium
Strengthen settlement of OTC-traded bonds by supporting DVP model 1 settlements, with gross settlement of the cash leg in the RTGS system (BCCh, CMF).	Medium	Medium
Consider the provision of a settlement account to DCV in order to facilitate instantaneous gross settlements, coordinated by DCV (BCCh, CMF).	Medium	Medium
Consider providing (new) Nonbank payment service providers with access to a settlement account in the RTGS system (BCCh).	Low	Medium
Extend the scope of the current BCCh payment system oversight unit to include CCPs, CSDs, and Nonbank payment service providers (BCCh).	High for CCPs, lower for other entities	Medium
Develop an MOU between the BCCh and CMF to facilitate comprehensive sharing of supervisory information and coordination of actions on CCPs and CSDs (BCCh, CMF).		Medium
(2) Other Nonbank financial institutions		
Provide broker-dealers with access to settlement accounts provided they are *adequately* regulated and supervised by the CMF (BCCh, CMF).	High	Medium
Develop an MOU between the BCCh and the CMF to facilitate comprehensive sharing of supervisory information on broker-dealers (BCCh, CMF).	Medium	Medium
Develop and communicate a policy for CUs that meet bank-like regulation (and other specified criteria) to have access to the full range of BCCh services.	Medium	Medium

[1] Short term: < 12 months; Medium term: 12 to 24 months.
[2] The time frame is an estimate of how long it would take to prepare legislation. It is noted that the pace may be beyond the control of the BCCh.

I. INTRODUCTION

1. **The Organic Law of the BCCh specifies the central bank mandate as "…to look after the stability of the currency and the normal functioning of internal and external payments systems."** Broadly interpreted, the BCCh has both price stability and financial stability objectives. It provides a range of services and uses a number of instruments to meet these objectives. Among other things, it includes managing system liquidity through standing facilities and the provision of ELA and providing access to settlement accounts in its real time gross settlement (RTGS) system.[1] The BCCh issues regulations for banks and other depository institutions and has broad consultative powers.

2. **The BCCh coordinates on financial stability issues with other institutions through the Financial Stability Board (Consejo de Estabilidad Financiera).** The BCCh takes the lead in financial stability matters, including through publishing a semi-annual *Financial Stability Report*. Other institutions contribute to this report through the Board: the Ministry of Finance, the CMF, the SBIF, and the Superintendence of Pensions (SP). In addition to high level meetings, technical staff of the various institutions share information through technical groups, with further bilateral cooperation facilitated through memoranda of understanding (MOUs).

Table 2. Overview of Central Bank Facilities and Benefits

Central bank facility	Benefits to banks and other market participants	Eligible institutions in Chile
Access to the payment system		
o Direct settlement account in RTGS system	Central bank money is safe settlement asset Efficient through economies of scale Central bank is neutral operator Operational integrity Supports monetary policy operations	Banks, CCPs (ComDer and CCLV), SSS (CCLV)
o Intraday liquidity	Facilitates settlement efficiency and reduces gridlock Backstops liquidity conditions (minimizes the need for buffers)	Banks
Access to standing facilities		
o Standing Deposit Facility (SDF)	Monetary policy implementation (floor) Safe deposit of cash without counterparty (credit and liquidity) risks	Banks
o Standing Lending Facility (SLF)	Monetary policy implementation (ceiling) Backstops liquidity conditions (minimizes the need for liquidity buffers)	Banks

Sources: IMF staff and Banco Central de Chile.

[1] Organic Law of the Central Bank of Chile, Sections 3, 35 and 36, amended in 2016.

3. **The BCCh's services are limited to banks, with the exception of CCPs and the SSS,** which have access to the payment system, but not to liquidity operations (Table 2).[2] The objective of the BCCh's strict eligibility criteria is to ensure that the payment system operates in a safe and efficient manner. While banks have always been granted access to the payment system, CCPs and the SSS weren't granted access until 2009 after their systemic importance and role in the payment system was recognized. CCPs can also deposit cash overnight in unremunerated settlement accounts. Only banks have access to intraday liquidity, and to the two standing facilities—the Standing Deposit Facility (SDF) and the Standing Lending Facility (SLF).

4. **The BCCh can extend ELA only to banks, although it has not done so since the mid-1980s.** The BCCh can dictate the terms and conditions for granting ELA, including collateral eligibility, yet it appears that internal policies and procedures are at an early stage of development. The Ministry of Finance has no role and does not indemnify the BCCh for any losses that may arise from ELA.

5. **Market demands and trends in other countries are drivers for the BCCh to re-evaluate its current policies regarding access to central bank facilities and ELA.** Various NBFIs have asked for access to central bank services, most notably the CCPs, the mutual funds sector, broker-dealers, and the largest credit union Coopeuch. These demands, combined with awareness of the need to ensure that the central bank has the tools to meet its mandate, particularly with regard to financial stability, have motivated the BCCh to review its practices.

6. **The objective of this report is to support the BCCh in evaluating whether NBFIs should have access to various services and be eligible for ELA.** The mission identified four assessment categories or criteria against which a cost benefit analysis was undertaken: monetary policy implementation, financial stability, economic efficiency and market neutrality, and the operational costs and risks for the central bank. The mission surveyed international practices, identified relevant literature, and was guided by relevant IMF policies and international standards in its analysis. Besides bilateral support in the form of ELA, the mission also assessed the powers that BCCh should have to provide sector-wide liquidity support to NBFIs in the event of systemic events, including support to securities markets.

7. **This report is set up as follows:** Section II describes Chile's financial system; Section III details the assessment framework, assessment categories, and criteria; and Section IV provides detailed assessments and recommendations by NBFI type.

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[2] Organic Law of the Central Bank of Chile, Section 55, and article 3 of Law No. 20.345.

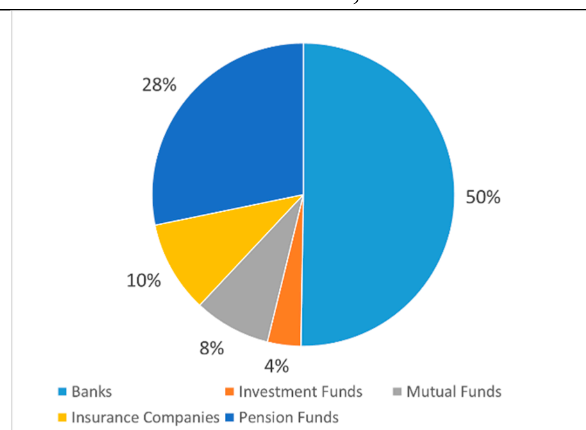
II. DESCRIPTION OF CHILE'S FINANCIAL SYSTEM

A. Structure

8. **The financial sector in Chile has more than doubled over the last ten years and is well-diversified, with the nonbank sector accounting for 50 percent of assets (Figure 1).** The banking sector is very concentrated with six banks—one state bank, two large private banks, and three foreign owned banks—accounting for 90 percent of banking sector assets. Equity market capitalization is equivalent to 93 percent of Gross Domestic Product. The BCCh has a credible inflation targeting framework (Box 1), successfully keeping inflation close to its three percent target.

9. **Broker-dealers play an important role in financial intermediation and are the only institutions legally authorized to trade in securities.** In total there are 32 broker-dealers of which 15 are majority owned by banks. The largest of the broker-dealers is a subsidiary of the country's state-owned bank (Banco del Estado de Chile) and has 40 percent market share, while an independent entity has the second largest market share (15 percent).

Figure 1. Financial Sector Asset Holdings as at December 31, 2017



Source: Financial Markets Commission.

10. **FMIs in Chile include several important entities.** Large value payments are settled directly in the Sistema Liquidación Bruta en Tiempo Real—the Real-Time Gross Settlement System (RTGS)— operated by BCCh, or through ComBanc, a deferred net settlement system with ultimate settlement in the RTGS accounts of participants. Both the RTGS system and ComBanc only allow banks as participants. CCP services are provided by CCLV for equities and exchange-traded derivatives and ComDer for OTC derivatives. CCLV also provides services as an SSS for fixed income and money market instruments, whereas ComBanc coordinates the delivery-versus-payment process for government securities. Government bonds can be either settled through ComBanc or directly in the RTGS system. DCV acts as CSD for all securities. Appendix I provides an overview of the FMI landscape in Chile.

Box 1. Monetary Policy Context

The BCCh has interpreted its monetary policy mandate as maintaining price stability and to meet this objective it implements an inflation-targeting framework. The BCCh is unusual in two respects: (1) it operates with negative capital (See table); and (2) it does not hold, and nor is it allowed to by the constitution, any government securities. These features are a legacy of the 1983/84 financial crisis.

The BCCh's operational target is the overnight unsecured interbank rate, set in the middle of a 50 basis-point-wide interest rate corridor. The ceiling of the corridor is the Standing Lending Facility (SLF) and the floor is the Standing Deposit Facility (SDF).

BCCh Balance Sheet (as at December 31, 2017)
(In USD millions)

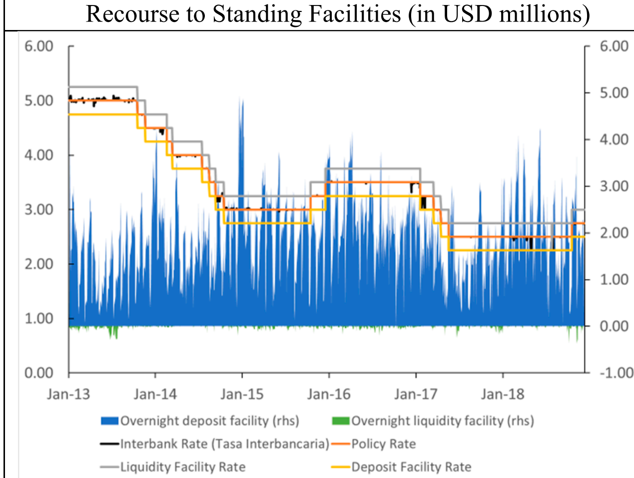
Assets		Liabilities	
Foreign assets	24,101	Foreign liabilities	769
Domestic assets	839	Currency	8,970
Other assets	58	Bank reserves	2,136
		Other obligations	4,046
		BCCH notes	14,837
		Other liabilities	23
		Net equity	(5,783)
Total Assets	**24,998**	**Total liabilities**	**24,998**

Source: Banco Central de Chile.

Reserve requirements are imposed on banks and credit unions at the rates of 9 percent on demand deposits and 3.6 percent on savings and term deposits (required on all local and foreign currency deposits). The requirements must be complied with on average over the maintenance period of one month using settlement account balances and vault cash. Settlement accounts are linked to the RTGS system and are used to settle balances generated through other clearing mechanisms—credit card clearing, check and ATM clearinghouses, and ComBanc. Credit unions also must comply with reserve requirements, but as they do not have access to BCCh settlement accounts, they comply through deposits held at commercial banks.

With the government's operational account held at a commercial bank (Banco Estado), most government flows impact the distribution of liquidity, but not the aggregate supply. The BCCh has been successful in achieving its operational target (see Figure). Recourse to the SLF has been very limited with the BCCh rarely conducting fine-tuning operations, while it does conduct sizeable structural operations through the issuance of its own securities.

Overnight Interest Rates (in percent) and
Recourse to Standing Facilities (in USD millions)



Source: Banco Central de Chile.

B. Regulation and Supervision

11. **Chile's regulatory and supervisory architecture was streamlined through the integration of the CMF and the SBIF.**[3] The aim of this consolidation is to improve supervision through better coordination, and through a more inclusive perspective over financial markets and supervised institutions (including conglomerates). It is expected to better align regulatory standards and supervision, which are essential for the BCCh to consider broadening its range of services to NBFIs. The consolidation should also facilitate equal treatment across participants and reduce the prospect of regulatory arbitrage. Finally, these changes should ease, though not eliminate, coordination efforts between BCCh and authorities when it comes to maintaining financial stability (e.g., through the provision of ELA).

12. **The CMF now covers prudential supervision, market conduct, and surveillance of all financial institutions, except pension funds, for which the Superintendence of Pensions is responsible.** It regulates and supervises insurance companies, securities issuers, fund managers, broker-dealers, and financial market infrastructures (i.e., the SSS, the two domestic CCPs, and the CSD). It is also responsible for the supervision of capital markets. With the integration it now covers the activities of the former SBIF; regulation and supervision of banks, larger credit unions, and credit card issuers and with responsibility for the oversight of ComBanc and retail payment systems.

13. **The BCCh has some regulatory responsibilities for the banking sector, it regulates and oversees the RTGS system, regulates ComBanc and retail payment systems,** and has consultative regulatory responsibilities for CCPs and pension funds regulations. The Superintendence of Pensions (SP) supervises the pension system (pension funds and some social security benefits). The Ministry of Economy supervises smaller credit unions (with capital below US$ 15 million) and is responsible for the supervision of governance in all credit unions (independent of their size). Family Compensation Funds (*Cajas de Compensacion y Asignacion Familiar*) are supervised by the Social Security Superintendence.

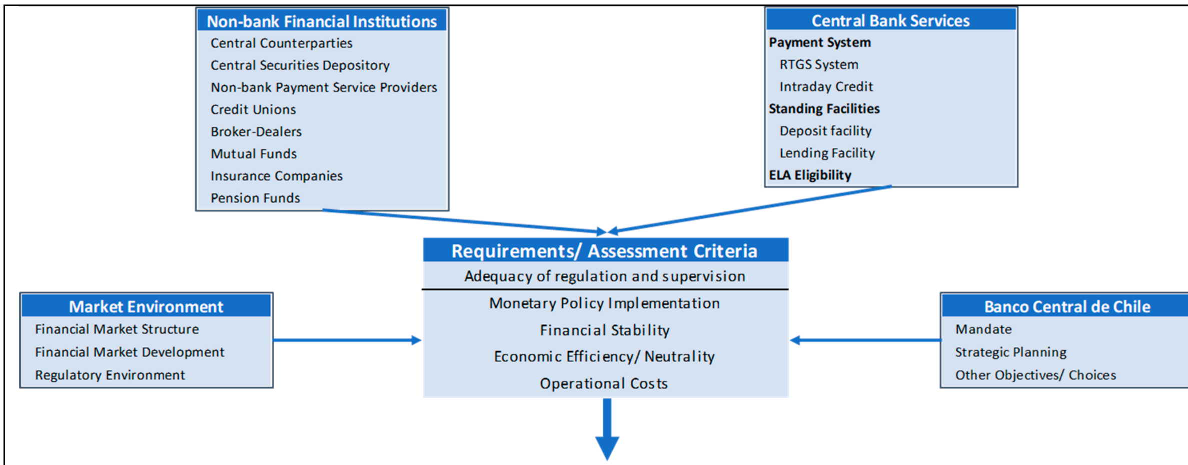
14. **Cooperation, coordination, and the exchange of information are facilitated mainly through two mechanisms.** The financial sector supervisors (SP and CMF; and BCCh with observer status) cooperate and exchange information through the Financial Sector Supervisory Committee. In this forum, participants exchange information on micro-prudential regulatory and supervisory developments. The Financial Stability Board, in turn, facilitates coordination and cooperation on financial stability and macro-prudential policies.

[3] The integration was effective post-mission—June 1, 2019.

III. Assessment Framework

15. **The mission developed a framework to assess whether particular central bank services should be offered to NBFI sectors** (Figure 2). It is based on international practices, IMF Financial Sector Assessment Program reports and policies, and various publications, notably the Committee on Payment and Settlement Systems "The Role of Central Bank Money in Payment Systems" (August 2003). The mission also surveyed global practices, focusing on central banks most relevant to BCCh (Appendix II).

Figure 2. Framework for Assessing the Provision of Central Bank Services



Access Policy

	Payment system		Standing facilities		Eligibility for ELA
	RTGS	Intraday Credit	Deposit Facility	Lending Facility	
Central Counterparties	??	??	??	??	??
Central Securities Depository	??	??	??	??	??
Non-bank Payment Service Providers	??	??	??	??	??
Credit Unions	??	??	??	??	??
Broker-Dealers	??	??	??	??	??
Mutual Funds	??	??	??	??	??
Insurance Companies	??	??	??	??	??
Pension Funds	??	??	??	??	??

Source: IMF staff.

16. **Without exception, all central bank counterparts must comply with "appropriate" regulations.** Such compliance helps to mitigate the financial, operational, and perhaps most importantly, the reputational risks of the central bank. Regulation should entail minimum standards that manage credit, liquidity, and operational risks, thereby ensuring equal treatment across sectors to minimize regulatory arbitrage. Entities must be adequately supervised, with regulations appropriately enforced. Where the central bank is not the supervisor, as in Chile, close coordination is required with the supervisor to ensure the central bank can form a judgement on the appropriateness of regulation/supervision.

17. **Additionally, four criteria are identified against which the provision of services to the different NBFI sectors are assessed.** These criteria are the impact on: (1) monetary policy implementation; (2) financial stability; (3) economic efficiency and market neutrality; and (4) the operational costs and risks of the central bank. Each of these criteria is described in turn while noting that the assessment may require policy makers to trade-off between the different criteria.

A. Impact on Monetary Policy Implementation

18. **Effective monetary policy implementation requires alignment of market interest rates with the announced monetary policy rate to ensure transmission of interest rate changes through the financial system.**[4] Meeting this objective requires a relatively stable demand for central bank liquidity and markets that function smoothly, underpinned with a well-articulated and consistently applied operational framework and efficient FMIs. The main questions are, how would NBFI access to particular services:

- Impact the stability of the demand for central bank liquidity;
- Impact the central bank's ability to forecast such demand;
- Impact the transmission of interest rate signals through the financial system; and
- Support the functioning of financial markets during periods of stress, thereby supporting the transmission of monetary policy?

B. Impact on Financial Stability

19. **Extending services to NBFIs could impact financial stability by increasing interconnectedness within the financial system and/or by increasing risk taking.**

- Where financial institutions do not have direct access to the payments system they are forced to transact and hold precautionary balances with other participants, thereby increasing the interconnectedness and with it, the risk of shocks being amplified through the system.
- The provision of financial services, particularly liquidity facilities, may increase the incentives for an entity to take on risk. This issue concerns moral hazard and is particularly important when considering eligibility for ELA.

[4] This discussion is based on a monetary policy framework with an interest rate operating target within a mid-corridor system.

C. Impact on Economic Efficiency and Market Neutrality

20. **Central bank operations should support economic efficiency and be neutral between participants.**[5]

- Where a central bank competes with the private sector in the provision of financial services, there may be a detrimental impact on economic efficiency. This impact may arise if the central bank prices its services at a level that undermines incentives for participation and innovation in the private sector. For example, offering artificially low rates at standing facilities to a wide range of counterparties could undermine the development and functioning of financial markets. It could also alter the incentives of those counterparties to actively manage liquidity risks.
- Central banks should consider allowing access to counterparties (subject to appropriate regulation/supervision) that are at the forefront of innovation in the provision of financial services (i.e., payments). Providing such access may increase competition to traditional services providers, thereby leading to greater economic efficiency.[6]
- The extension of access to services should strive to be neutral across counterparts to ensure that competition and thus efficiency are not undermined. However, central bank provisioning of such services could result in externalities that increase welfare, despite a negative impact on competition.[7]

D. Impact on Operational Costs and Risks for the Central Bank

21. **Increasing the number and type of entities with access to central bank services will likely increase operational costs and associated risks for the central bank.**

- Operational costs may increase with a higher volume of transactions where infrastructure needs to be upgraded. In most circumstances systems are scalable, and therefore the marginal costs of increased transactional activity would likely to be low.[8]

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[5] The Act states that "The authorities granted to the Bank by law shall not be exercised in a manner which, directly or indirectly, may result in the establishment of regulations or requirements that are different or discriminatory to any person, institution or entity conducting business of similar nature."

[6] For example, the Bank of England provides Nonbank payment service providers with access to the RTGS system to promote innovation. TransferWise was the first such provider to be granted access in April 2018, and iPagoo followed in August 2018. See https://www.bankofengland.co.uk/speech/2018/victoria-cleland-speech-at-payments-international-london.

[7] The provision of central bank services that reduce systemic risk is an example.

[8] Costs for all participants may decreases with an increasing number of participants when high fixed costs can be shared across a higher number of participants.

- Operational costs may be higher where more counterparties need overseeing. Providing liquidity to a broader range of counterparts would increase costs related to collateral management.
- Financial risks are higher when liquidity is provided, potentially creating reputational risks for the central bank.

IV. Assessment and Recommendations

22. **The assessment framework developed in the previous chapter is applied to Chile to establish policy positions on the provision of BCCh services to various NBFIs.** This assessment takes account of the BCCh mandate and other relevant objectives, and general principles.[9] Table 3 summarizes the recommendations. The rest of the section provides details for each type of NBFI.

Table 3. Summary of Recommendations

	Settlement account		Standing facilities		ELA
	Access to RTGS	Access to intraday liquidity	Standing deposit facility	Standing lending facility	
Financial Market Infrastructures					
• CCPs	✓	X	✓	X	✓
• CSD	✓	X	X	X	X
• Other (Fintech)	✓	X	X	X	X
Nonbank Deposit Takers (CUs)					
Below set thresholds of regulation/size/other	X	X	X	X	X
Above set thresholds of regulation/size/other	✓	✓	✓	✓	✓
Broker-Dealers	✓	X	X	X	X
Mutual Funds/Insurance Companies/Pension Funds	X	X	X	X	X

Source: IMF staff.

Note: "✓" represents the recommendation that access should be granted and "X" represents the recommendation that access should not be granted.

[9] See "Strategic Plan for 2018–2020, A Project for All" (BCCh, April 2017).

A. Financial Market Infrastructures

Central Counterparties

General Context

23. **CCPs are financial market infrastructures that bring safety and efficiency benefits, but also concentrate risks and are therefore systemically important.** A CCP is an entity that interposes itself between counterparties to contracts traded in financial markets, becoming the buyer to every seller and the seller to every buyer, thereby guaranteeing the performance of open contracts. In a market cleared by a CCP, clearing members are no longer exposed to each other (and their respective risk profiles), but rather to one counterparty (the CCP). A CCP, however, concentrates risks by substituting for a whole network of financial institutions and its benefits only hold as long as the CCP's risk management is sufficiently sound. A CCP's failure to absorb losses from the default of one or more of their participants (with prefunded collateral) can amplify or cause systemic disruptions. The potentially pro-cyclical nature of their margin calls and haircutting practices during market stress could act as macro-financial feedback mechanisms that could increase market disruptions.

Monetary Policy Implementation

24. **Allowing CCPs broad access to central bank facilities could undermine the central bank's ability to forecast banking system liquidity—an important element in aligning interest rates with the announced stance of policy.** The impact is limited when the settlement account is used for intraday settlements with a zero balance overnight. The impact may be greater where the CCP also uses the account for overnight deposits or where CCPs have access to standing lending facilities. In this case, volatility in the CCP's cash deposits may result in liquidity forecasting errors and deviations of the market rate from the central bank's target. Granting CCPs eligibility to ELA may have a positive impact on the implementation of monetary policy if the risks of fire sales of financial assets are reduced.

Financial Stability

25. **Providing CCPs with a settlement account contributes to financial stability.** A settlement account reduces the interconnectedness between CCPs and their correspondent banks and allows CCPs to pay and receive margins directly to and from its participants. An account can also service as an intermediary account between buyers and sellers to facilitate delivery-versus-payment (DVP) settlements of securities transactions, although this is not strictly necessary. (CCPs can also send settlement instructions to the RTGS operator which then debits and credits accounts of RTGS participants.)

26. **CCP access to the central bank's deposit facility mitigates the risk of loss of (access to) cash collateral following the failure of a commercial deposit-taking institution.** CCPs that keep their cash collateral at commercial banks are exposed to the failure of the commercial bank. In case this bank is also a clearing member of the CCPs, CCPs are exposed to "wrong-way"

risk.[10] CCPs can limit this risk by placing cash at a range of banks with limits per institution, and through overnight repurchase transactions (repos). This, however, still exposes CCPs to remaining risks, such as loss of access to part of its cash collateral should a bank fail. Also, in extreme circumstances the repo market may stop functioning. Considering that cash collateral is an important protection for these systemically important infrastructures, the safest option is for CCPs to place their cash collateral at a central bank account. This will ensure that they have access to their collateral, especially in times when they need it most.

27. **Granting CCPs access to central bank liquidity (i.e., ELA) is beneficial for financial stability.** Significant liquidity risks may arise when one or more CCP participants default. CCP business models require them to make the cash payments owed to non-defaulting counterparties when due. This shouldn't be a problem if there is sufficient margin, guarantee fund, or adequate resources held in cash and in the required currency. If those funds are held in securities, the CCPs will need to convert the securities into cash, by selling them, entering into a repo, or by using them as collateral to draw on a commercial credit line. However, in extreme circumstances the CCPs may not be able to convert securities into cash or their liquid resources may turn out to be insufficient. Committed and prearranged credit lines may prove to be unavailable at the moment the CCPs needs them most when key securities markets, including repo markets may have frozen.[11] Access to central bank liquidity would ensure continued operation of the CCPs and thus support financial stability.

28. **The financial stability benefits of granting ELA should be balanced against the risk of moral hazard.** Access to central bank liquidity may incentivize CCPs to take greater risks than otherwise because they are shielded from the negative consequences of those risks at the taxpayers' expense. For example, CCPs may be tempted to reduce margin requirements, or collateral standards in a competitive environment, while also seeking higher returns by taking more risk when investing cash collateral. However, such financial stability risks should be contained by adequate regulation and supervision.

[10] Wrong-way risk is the risk than an exposure to a counterparty is highly likely to increase when the creditworthiness of that counterparty is deteriorating. In other words, if a clearing member's creditworthiness deteriorates, the exposure of the CCP is increasing because that clearing member is also a commercial bank that keeps the CCP's cash collateral.

[11] F. Wendt, "Central Counterparties: Addressing their Too Important to Fail Nature." IMF Working Paper 15/21 (January 2015).

Economic Efficiency and Market Neutrality

29. **Allowing CCPs access to a settlement account and the RTGS system positively influences market efficiency by facilitating fast and smooth payments and reduced complexity.**

30. **Access to a remunerated deposit account helps to level the playing field when CCPs compete at a domestic or international level.** Interest income on balances held by CCPs can be substantial and therefore a relevant consideration in markets where CCPs compete for trade flow.

31. **The provision of deposit facilities and ELA by a central bank would not materially compete with banks.** Although commercial banks can also provide settlement accounts, deposit facilities, and credit lines to CCPs, the size of these services is generally low compared to their overall portfolios. Competition is therefore, in practice, not an issue and the disintermediation impact likely immaterial. Furthermore, commercial banks, as participants of the CCP, typically recognize the positive impact of central bank facilities on the risk profiles of CCPs and consequently on the stability of financial markets.

Operational Cost and Risks of the Central Bank

32. **Extending liquidity (i.e., ELA) to CCPs exposes a central bank to credit risk and oversight cost.** To ensure that the CCPs are sufficiently safe, credit risk should be reduced ex-ante through strong regulation and oversight and based on the Principles for Financial Market Infrastructures (developed by the Committee on Payment and Settlement Systems and the International Organization of Securities Commissions). Oversight will come with additional cost for the central bank in the form of additional staff members.

Application to Chile and Recommendations

33. **The BCCh currently provides the two CCPs in Chile (CCLV and ComDer) with access to a settlement account, which is not remunerated.** Both CCPs use this account for daily payments and settlements while ComDer also uses it also to deposit its cash collateral overnight. CCLV deposits its cash collateral at various commercial banks. The CCPs do not have access to BCCh intraday or overnight liquidity, which currently is prohibited by law.

34. **Given the systemic importance of CCPs, the mission supports the BCCh's existing policy to provide CCPs with access to the payment system.** It also recommends extending access to central bank liquidity on a discretionary basis (i.e., ELA) and offering a remunerated deposit facility.

- Such access would enable the BCCh to provide the CCPs with liquidity support against high quality liquid assets in extreme circumstances when the CCPs are not able to receive liquidity through commercial credit lines, the repo market, or by selling securities because of market disruption. The discretionary nature of the provision of liquidity, as opposed to allowing access to the SLF, aims to reduce moral hazard.

- Access to a remunerated deposit account will further contribute to a level playing field, where CCPs compete at a domestic or international level.[12] Indirectly, this access contributes to financial stability: a level playing field supports chances of survival for ComDer, keeping CCP services onshore and providing local authorities in Chile better opportunities to manage financial crises that involve centrally cleared markets.

35. **The impact on monetary policy implementation is limited through BCCh's bottom-up collection of information**. Forecasting errors are reduced by having counterparts provide credible forecasts of their cash flows and cash collateral deposits. In addition, the BCCh uses statistics on the expiration of derivatives and the structure of time deposits. In the future it may also use information from a trade repository.

36. **However, to ensure adequate risk management CCPs must be subject to strong regulation, supervision, and oversight before liquidity and remunerated deposit services are provided**. Although CCPs are already subject to regulation and supervision by the CMF, with the BCCh having binding consultation powers over regulation, it is good practice for central banks to include CCPs within the scope of their payment system function. This will provide the BCCh with the necessary information and powers to ensure that CCPs are indeed appropriately addressing credit, liquidity, and operational risks.

37. **The BCCh will face additional costs for overseeing CCPs.** The payment system's oversight department has the capacity to monitor current activities and can conduct assessments under the Principles for Financial Markets Infrastructure standards. However, oversight of CCPs requires additional specialists, ideally one to two dedicated staff members with relevant experience in this area. Furthermore, the central bank will need to develop dedicated rules and procedures for the provision of an SDF and for ELA to CCPs. The BCCh will also need to intensify cooperation and coordination with the CMF, preferably through a Memorandum of Understanding.

[12] International competitors of ComDer have access to a remunerated deposit account.

Table 4. Recommendations for Central Counterparties

Central bank services	Recommendation	Criteria			
		Monetary policy	Financial stability	Economic efficiency/neutrality	Operational costs/risks
RTGS	✓	-	++	+	-
Intraday	X	0	0	0	-
credit	✓	-	++	++	-
SDF	X	-	0	0	-
SLF	✓	+	++	0	-
ELA					

Source: IMF staff.

Note: "✓" represents the recommendation that access should be granted, "X" represents the recommendation that access should not be granted, "+" represents a positive assessment relevant to the criteria, "-" represents a negative assessment, and "0" represents a neutral assessment.

Central Securities Depositories

General Context

38. **CSDs are systemically important FMIs due to their central role in financial markets, and often have access to a settlement account.** Such access allows for settlement of securities transactions in central bank money, with the CSD coordinating the DVP process and using its account for payments of interest, dividends, and other asset services. Access is not strictly necessary: CSDs can also send settlement instructions to the RTGS operator, who debits and credits accounts of the buyers and sellers of securities. Nevertheless, many central banks consider that the central role of CSDs in the settlement process justifies access to a settlement account.

Monetary Policy Implementation

39. **CSD access to central bank facilities may impede central bank's forecasts of the system's liquidity needs.** The impact is limited when the settlement account is only used for intraday settlements with a zero balance overnight.

Financial Stability

40. **CSD access to central bank facilities (e.g., ELA) may support financial stability.** Such access (either through a physical account or through the coordination of the DVP process with the RTGS system) facilitates centralized coordination of securities settlements in central bank money, mitigating dependencies on correspondent banks.

Economic Efficiency and Market Neutrality

41. **CSD access to a central bank settlement account may have a positive impact on economic efficiency.** The coordination of securities and cash settlement by one entity with one settlement account may positively contribute to the speed of settlements and reduce complexities.

Operational Cost and Risks of the Central Bank

42. **The central bank may face additional costs for overseeing CSDs if they are granted access to a settlement account.** Oversight of a CSD requires additional knowledge and potentially staff.

Application to Chile and Recommendations

43. **DCV is the one active CSD in Chile providing securities accounts to issuers and investors, safekeeping and asset services, as well as a registrar function**. Although it settles securities, it does not coordinate the DVP processes, unlike CSDs in many other countries. These processes are undertaken by CCLV for exchange-traded securities, and by ComBanc for OTC traded securities. DCV also provides collateral and other services to the BCCh in the context of repos and other monetary policy operations. The BCCh currently does not provide the DCV with access to a settlement account or other central bank facilities. DCV is regulated and supervised by the CMF without a formal role for the BCCh.

44. **One option is to provide DCV with a settlement account, although this is not strictly necessary.** This account allows for DVP settlements; however, it is also possible that DCV sends cash settlement instructions to the RTGS system to debit and credit accounts of buyers and sellers; and settles the securities leg upon confirmation from the BCCh, as operator of the RTGS system, that cash settlements were successful.

45. **The current cash settlement practices for OTC-traded bonds are less conservative than in many other countries.** International good practice is that government bonds and central bank securities are settled using a DVP model 1 on t+0, which is the safest settlement practice for monetary policy and general collateral management operations.[13] In Chile, this settlement model coexists with another model. DVP settlements for OTC-traded bonds are coordinated by ComBanc. The securities leg is settled in DCV, whereas participants can choose how to settle the cash leg: on a net basis through ComBanc's net payment facility (resulting in a DVP model 2 settlement) or directly in the RTGS system (resulting in a DVP model 1 settlement). The first option (through ComBanc) is currently preferred by banks as it is more liquidity efficient. ComBanc has developed a framework to manage credit and liquidity risks, which includes a clear definition of the moment of settlement finality (backed by the legal framework), limits, and cash deposits. Nevertheless, the mission is of the opinion that there is still the possibility that in

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[13] In a DVP model 1, instructions for both securities and cash are settled on a trade-by-trade (gross) basis. In DVP model 2, instructions for securities are settled on a gross basis, whereas the cash is settled on a net basis. In DVP model 3, instructions for both securities and cash are settled on a net basis.

extreme circumstances participants to a DVP model 2 settlement through ComBanc are exposed to material credit and liquidity risks.[14]

46. **The mission therefore recommends that BCCh and CMF strengthen the settlement of OTC-traded bonds on financial stability grounds.** Government, central bank, and corporate bonds should be settled using a DVP model 1 settlement in the RTGS system. The coordination of the DVP settlements could be done through DCV, allowing for safe gross settlements in seconds. An increase of ComBanc's deposit amounts is expected to disincentivize the use of DVP model 2 settlements as well.

47. **As with CCPs, DCV access to a settlement account should be conditional on adequate regulation and supervision.** It is good practice that central banks include CSDs in their payment system oversight scope to ensure they have the necessary information and powers to address operational and other types of risks. Although DCV is already subject to regulation and supervision of the CMF, to improve oversight, the BCCh should intensify its cooperation and coordination with the CMF, preferably through an MOU.

Table 5. Recommendations for Central Securities Depositories

Central bank services	Recommendation	Criteria			
		Monetary policy	Financial stability	Economic efficiency/neutrality	Operational costs/risks
RTGS	✓	0	+	+	-
Intraday credit	X	0	0	0	-
SDF	X	0	0	0	-
SLF	X	0	0	0	-
ELA	X	0	0	0	-

Source: IMF staff.

Note: "✓" represents the recommendation that access should be granted, "X" represents the recommendation that access should not be granted, "+" represents a positive assessment relevant to the criteria, "-" represents a negative assessment, and "0" represents a neutral assessment.

[14] Although an assessment of ComBanc is outside the scope of this work, the mission estimates that risk exposures for banks' large value payments through ComBanc are relatively high compared to direct settlement in the RTGS system. First, the liquidity risk management model of ComBanc seems to assume that only one bank would potentially fail. However, during a crisis more than one bank could fail to meet its obligations. Second, the assumption about the netting factor (90 percent) may also not hold during a crisis. Third, ComBanc does not conduct any liquidity stress testing or reverse stress testing. The mission suggests running simulations based on historical and hypothetical liquidity stress events to inform participants' understanding of the potential effect that different extreme scenarios might have on the functioning of ComBanc and individual participant's liquidity and payment operations. The stress testing framework of U.S. based CHIPS can be used as a benchmark. The mission notes that in 2019 the BCCh has agreed with ComBanc to increase the coverage for the two major exposures.

Nonbank Payment Service Providers

General Context

48. **For providers of payment systems and services, access to central bank facilities is typically limited to a settlement account,** and the following discussion covers only this service. Automated clearing houses or check clearing houses may have an account to facilitate net settlement of retail payments in central bank money. Nonbank payment service providers could have access to support innovation and a level playing field.

Monetary Policy Implementation

49. **Providing Nonbank payment service providers with access to central bank facilities could impact the central bank's ability to implement monetary policy**, however it would depend on the type of provider and the volume of transactions. For instance, automated clearing houses would likely have relatively small net settlements and have little or no impact on the demand for reserve balances and hence policy implementation. However, where providers offer token-based payment services that are backed partially or fully by reserves at the central bank, policy implementation could be more complicated where the demand for the tokens is volatile.

Financial Stability

50. **Providing Nonbank payment service providers with access to central bank facilities/ELA is not expected to have a significant impact on financial stability.** Nonbank payment service providers typically handle low-value retail payments. Access to a settlement account and liquidity facility will therefore not contribute substantially to financial stability, as these entities are not relevant for financial stability in the first place. Only in case of a very dominant player, would access to facilities/ELA be important to reduce its dependencies on commercial banks. A failure of a dominant player could undermine trust in the financial system, not because of the value of the payments, but because of the volumes.

Economic Efficiency and Market Neutrality

51. **Central bank access to Nonbank payment service providers is expected to increase the efficiency of the system.** First, more payments will be directly settled in the RTGS system, reducing complexities. Furthermore, such access may stimulate payment service innovation as it provides new (Fintech) payment service providers with a level playing field. The central bank is a neutral provider of settlement accounts, enabling new companies to compete with incumbent payment service providers. Although central bank access may disintermediate commercial banks, the impact would be limited if commercial banks still provide other banking services to these companies.

Operational Cost and Risks of the Central Bank

52. **The central bank may face some additional costs.** If the central bank provides Nonbank payment service providers with a settlement account, these entities should be subject to its payment system oversight. The payment systems oversight department will have to increase its capacity to be able to conduct oversight activities for such providers.

Application to Chile and Recommendations

53. **The BCCh does not provide central bank facilities to payment systems or other Nonbank payment service providers.** ComBanc, low-value payment clearing houses, or the automated clearing house for card payments and fast payments do not have a central bank account or access to liquidity facilities. Nevertheless, payments cleared through ComBanc and the low-value clearing houses are settled in central bank money. These operators send BCCh, as operator of the RTGS system, a list with net payment instructions on a daily basis, which are then settled on the settlement accounts of system participants.

54. **The mission recommends that BCCh consider providing Nonbank payment service providers with access to a settlement account.** A proviso would be that the provider would settle a potentially large volume of payments, with the expected benefits of greater efficiency and support for innovation. Granting access to such providers would require an extension of the scope of the current payment system oversight unit to oversee Nonbank payment service providers.

Table 6. Recommendations for Nonbank Payment Service Providers

Central bank services	Recommendation	Criteria			
		Monetary policy	Financial stability	Economic efficiency/neutrality	Operational costs/risks
RTGS	✓	0	0	++	-
Intraday credit	X	0	0	0	-
SDF	X	0	0	0	-
SLF	X	0	0	0	-
ELA	X	0	0	0	-

Source: IMF staff.

Note: “✓” represents the recommendation that access should be granted, “X” represents the recommendation that access should not be granted, “+” represents a positive assessment relevant to the criteria, “-“represents a negative assessment, and “0” represents a neutral assessment.

B. Other Nonbank Financial Institutions

Nonbank Deposit Taking Institutions/Credit Unions

General Context

55. **Credit Unions (CUs), as deposit taking and lending institutions, are similar to banks although there are important differences.** CUs are generally smaller than banks, offer a narrower range of financial services with more concentrated customer bases, and they may be subjected to lighter-touch regulation and governance requirements. They must comply with reserve requirements (through a commercial bank) but are not eligible to participate in other operations conducted by the BCCh. CUs may also be required to pursue social objectives (i.e., financial inclusion) and therefore may not be strictly profit maximizing entities. Important in the following assessment is the size of the CU sector relative to the size of the banking sector; the smaller the relative size, the less the impact on a given criteria.

Monetary Policy Implementation

56. **Allowing CUs access to the full range of central bank services is likely to have little impact on the central bank's ability to effectively implement monetary policy.** CUs demand for holding precautionary liquidity could potentially fall given the increased certainty of access to liquidity through the SLF. Interest rate transmission may strengthen if CUs adjust their lending and deposit rates more quickly to changes in the policy rate; this would be the case if the link between the CUs marginal cost of funds and the policy rate tightened because of access to the payment system and to central bank standing facilities. Providing ELA to large CUs in times of stress is likely to support monetary policy implementation, as interbank and other markets are less likely to become impaired.

Financial Stability

57. **CUs that are shut out from central bank services must conduct their payments and liquidity management functions through commercial banks, increasing the interconnectedness within the financial system and therefore systemic risk.** Providing CUs with access to settlements accounts together with standing facilities reduces these links, while the potential provision of ELA allows for the central bank to mitigate contagion where a CU is considered of a systemic nature. Therefore, subject to adequate regulation/supervision, allowing CUs access to central bank services should have a positive impact on financial stability. In the absence of regulation/supervision, such access may incentivize greater risk-taking.

Economic Efficiency and Market Neutrality

58. **Economic efficiency and market neutrality are important considerations when CUs are large and compete across similar product lines as banks.** In many cases CUs will be positioned in different markets to banks, perhaps catering to lower-income customers, or in small geographical regions of a country. However, CUs may also be larger than some commercial

banks and operate across a broad range of financial services. In such cases, exclusion from any of the central bank services would put the CU at a disadvantage because services sourced through banks are likely to be more expensive (e.g., commercial banks will likely charge for access to the payments system). Additionally, CUs may have a credit line with the commercial bank which may not be honored in a crisis situation. Therefore, in assessing the impact on efficiency and neutrality, central banks could establish a threshold—perhaps by considering asset size, customer base, and product range—to see whether some CUs are disadvantaged from not having access to it services.

Operating Cost and Risks of the Central Bank

59. **The marginal costs of extending payments services to CUs is likely to be low while risks increase with access to liquidity facilities.** Given appropriate infrastructure, the marginal costs of increasing the number of settlement accounts and providing access to the RTGS system will be low. However, access to liquidity through intra-day and overnight facilities, and potentially ELA, increases operational costs as collateral must be managed. While risk-mitigation measures can be used, the risks of allowing access to liquidity are obviously higher than when access is not granted.

Application to Chile and Recommendations

60. **Coopeuch, the largest credit union, accounts for 82 percent of the sector.** This credit union appears to be regulated in a similar way to banks, is internationally rated, and competes with commercial banks across a range of financial services. It has a wide reach with 7 percent of the population being members. By asset size, if it were a bank, it would the fourteenth largest out of the total of twenty that operate in Chile.

61. **While there may be a case to grant Coopeuch access to all central banks services, the BCCh should first establish and then communicate a clear policy position.** The overriding consideration is regulation/supervision. Entities must be supervised by the CMF and meet regulatory standards equivalent to those applied to banks—thereby ruling out all CUs only supervised by the Ministry of the Economy. Additional tests related to asset size, customer base, geographical reach, and product range could also be included.[15] A CU that operates locally with a limited product range, although supervised by the CMF, would likely not be granted access, given the limited risks to financial stability and absence of a strong case that could be made on grounds of economic efficiency/market neutrality. To engender trust in this process, the BCCh should communicate its policy on CU counterparty eligibility.

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[15] Where a CU does meet the threshold for accessing services, consideration should also be given to granting it access to the open market operations conducted by the BCCh to further ensure a level playing field.

Table 7. Recommendations for Credit Unions
(Subject to policy development for adequate regulation/supervision and other criteria)

Central bank services	Recommendation	Criteria			
		Monetary policy	Financial stability	Economic efficiency/neutrality	Operational costs/risks
RTGS	✓	+	+	+	-
Intraday	✓	+	+	+	-
credit	✓	+	+	+	-
SDF	✓	+	+	+	-
SLF	✓	+	+	+	-
ELA					

Source: IMF staff.

Note: "✓" represents the recommendation that access should be granted, "X" represents the recommendation that access should not be granted, "+" represents a positive assessment relevant to the criteria, and "-" represents a negative assessment.

Broker-Dealers

General Context

62. **Broker-dealers act as a principal intermediary and are important for the effective functioning of financial markets.** They may play an important role as provider of liquidity in cash, repo, and securities markets. Their business models may differ regarding the targeted market segments, with varying customer shares and levels of risk-taking. Organizational setups vary also—some may be subsidiaries of a bank or another NBFI, or they may operate independently. Broker-dealers may also be counterparties to central bank's operations, thereby playing a key role in the transmission of monetary policy. Broker-dealers that are subsidiaries of banks and NBFIs may have credit lines with their parent company, although these may be constrained by related-party lending limits.

Monetary Policy Implementation

63. **Providing broker-dealers with access to services would likely not impair the central bank's ability to effectively implement monetary policy and potentially could enhance it.** The central bank may have to adapt its liquidity forecasting approach to include broker-dealers demand for central bank reserves, while its ability to manage liquidity effectively could be undermined if demand became volatile. Volatility is a risk if broker-dealers frequently used standing lending facilities. A positive benefit could arise if broker-dealer access improved liquidity in securities markets, and accordingly policy transmission.

Financial Stability

64. **Providing broker-dealers with access to settlement accounts would generally be positive for financial stability.** It would facilitate securities settlements in central bank money, thereby reducing the interconnectedness between broker-dealers and their correspondent banks.

65. **However, access to standing lending facilities and ELA may increase the incentives and ability for broker-dealers to adjust their business model to take more risks.** This could compromise financial stability where such risks are not adequately contained through regulation. With an overnight credit line readily available (limited only by the amount of available eligible collateral), broker-dealers may have reduced incentives to seek market options for liquidity, particularly during stress events.

Economic Efficiency and Market Neutrality

66. **There could be a positive impact on economic efficiency if access results in lower transaction costs.** If broker-dealers were faced with unjustifiably high costs for accessing services from commercial banks, central bank access could reduce those costs. The reduced cost from access could, for example, be passed on to clients through lower bid-offer spreads. Neutrality of access within the broker-dealers is important to ensure effective competition.

Operating Cost and Risks of the Central Bank

67. **Providing settlement account access to broker-dealers should not materially increase a central bank's operating costs.** While payment system services are generally scalable, liquidity provision would increase financial risks for the central bank. These risks, however, can be contained through appropriate collateral and other risk mitigation policies.

Application to Chile and Recommendations

68. **Broker-dealers are an important part of the Chilean financial landscape given the size of the capital markets.** Individual business models differ across broker-dealers, and their core business lines may co-exist with corporate finance-asset management, private equity, or other business lines. Broker-dealers are eligible counterparties to BCCh's structural open market operations, carried out through the issuance of discount promissory notes and longer-term bonds. Currently, nonbank related broker-dealers in Chile do not have access to any central bank services.[16]

69. **In consultation with the CMF, the BCCh should ensure that regulation and supervision of broker-dealers is adequate to mitigate risks it may face.** While recognizing the CMF's preeminent role in the regulation and supervision of broker-dealers, the BCCh should retain the right to formulate its own view on the adequacy of regulation and supervision. Only in exceptional circumstances would it be envisioned that it would differ from the CMF on such matters. Further, in this regard, the BCCh could develop a memorandum of understanding with the CMF to facilitate complete and timely sharing of supervisory information on broker-dealers.

70. **It is recommended that broker-dealers be allowed access to a settlement account, but not to other services.** Broker-dealer access to a settlement account reduces interconnectedness, as

[16] Broker-dealers with a domestic bank parent company are assumed to have access to RTGS through their parent institution.

securities settlement (DVP) is facilitated in central bank money. It is, however, recommended that broker-dealers should not be granted access to intraday credit, standing facilities, or eligibility for ELA given the potential for incentivizing increased risk taking.

71. **In the future, the case *could* be made for broker-dealers to have access to BCCh liquidity, including ELA.** However, the bar for such access is very high, requiring compliance with bank-like capital, liquidity, and leverage regulation and augmented with a systemic test.

Table 8. Recommendations for Broker-Dealers

Central bank services	Recommendation	Criteria			
		Monetary policy	Financial stability	Economic efficiency/neutrality	Operational costs/risks
RTGS	✓	+	+	+	-
Intraday credit	X	+	--	0	-
SDF	X	+	-	+	-
SLF	X	+	--	0	-
ELA	X	+	--	0	-

Source: IMF staff.

Note: "✓" represents the recommendation that access should be granted, "X" represents the recommendation that access should not be granted, "+" represents a positive assessment relevant to the criteria, "-" represents a negative assessment, and "0" represents a neutral assessment.

Mutual Funds

General Context

72. **Although mutual funds are an important investment vehicle, they do not usually have access to central bank facilities.**[17] While mutual funds provide investment services and products, they are *users*, and not *providers,* of *payments services*. If the central bank provided access to the payment system—settlement account and intra-day and overnight liquidity facilities—it would compete with private sector entities. This would thereby undermine the incentives for private sector innovation—an economic efficiency argument—while also increasing the operational costs and risks of the central bank. There would likely be no impact on the implementation of monetary policy. On the other hand, financial stability risks could increase where access to standing facilities and potentially ELA, impacted risk-taking that was not adequately contained through appropriate regulation. To the extent that mutual funds may experience liquidity mismatches, resulting from redemption pressures in funds whose underlying assets had become illiquid, the authorities could consider sector wide programs to contain such pressures. It is unlikely that only one mutual fund would encounter such pressure from a stress

[17] An exception is the United States where many money market funds are eligible counterparts to the Federal Reserve Bank of New York's Overnight Reverse Repo Facility. This facility is designed to help the central bank control interest rates and a large balance sheet in times of quantitative easing.

event, unless it alone had a concentrated exposure to a particular security or asset class. In this case, fund investors should shoulder the loss with a broader response justified only where there was a risk of contagion.

Application to Chile and Recommendations

73. **The above arguments support the case for the BCCh not to allow access to the mutual funds for any of its services.** Additionally, questions of the adequacy of regulation of this sector may also be raised. The mutual funds industry in Chile is heavily geared towards money market funds (42 percent of assets under management) which results in significant maturity transformation and seemingly without stringent credit criteria.[18] Appropriate regulation and good communication of the liquidity risks should be the first lines of defense, while the second line should be liquidity management tools to deal with stress events; such tools could include, gates, fees, swing-pricing, and suspension of redemptions.

Table 9. Recommendations for Mutual Funds

Central bank services	Recommendation	Criteria			
		Monetary Policy	Financial Stability	Economic efficiency/neutrality	Operational costs/risks
RTGS	X	0	0	-	-
Intraday	X	0	0	-	-
credit	X	0	0	-	-
SDF	X	0	-	-	-
SLF	X	0	-	-	-
ELA					

Source: IMF staff.

Note: "✓" represents the recommendation that access should be granted, "X" represents the recommendation that access should not be granted, "-" represents a negative assessment, and "0" represents a neutral assessment.

Insurance Companies and Pension Funds

General Context

74. **As with mutual funds, it is unusual for central banks to allow insurance companies and pension funds access to their facilities.[19]** There is similar justification: these entities are *users*, and not *providers*, of *payments services*. Again, there is likely little or no impact on the central bank's ability to implement monetary policy while the case against providing any sort of liquidity to individual entities is stronger on financial stability grounds given that these entities

[18] The mission was informed that money market mutual funds do not have liquidity requirements other than a 90-day maximum duration limit. Furthermore, there is no limitation on credit quality.

[19] An exception is Switzerland where insurance companies are part of the interbank market; access to the RTGS system and a settlement account is a prerequisite to participate.

generally do not have runnable liabilities—therefore liquidity mismatches are likely to be small relative to those that could arise in mutual funds.

Application to Chile and Recommendation

75. **For reasons outlined above, BCCh should not grant insurance companies and pension funds access to its services.** The mission, however, supports the case for the central bank to have powers to provide sector-wide support where liquidity pressures in these sectors amplified risk of contagion.

Table 10. Recommendations for Insurance Companies and Pension Funds

Central bank services	Recommendation	Criteria			
		Monetary policy	Financial stability	Economic efficiency/neutrality	Operational costs/risks
RTGS	X	0	0	-	-
Intraday credit	X	0	0	-	-
SDF	X	0	0	-	-
SLF	X	0	-	-	-
ELA	X	0	-	-	-

Source: IMF staff.

Note: "✓" represents the recommendation that access should be granted, "X" represents the recommendation that access should not be granted, "-" represents a negative assessment, and "0" represents a neutral assessment.

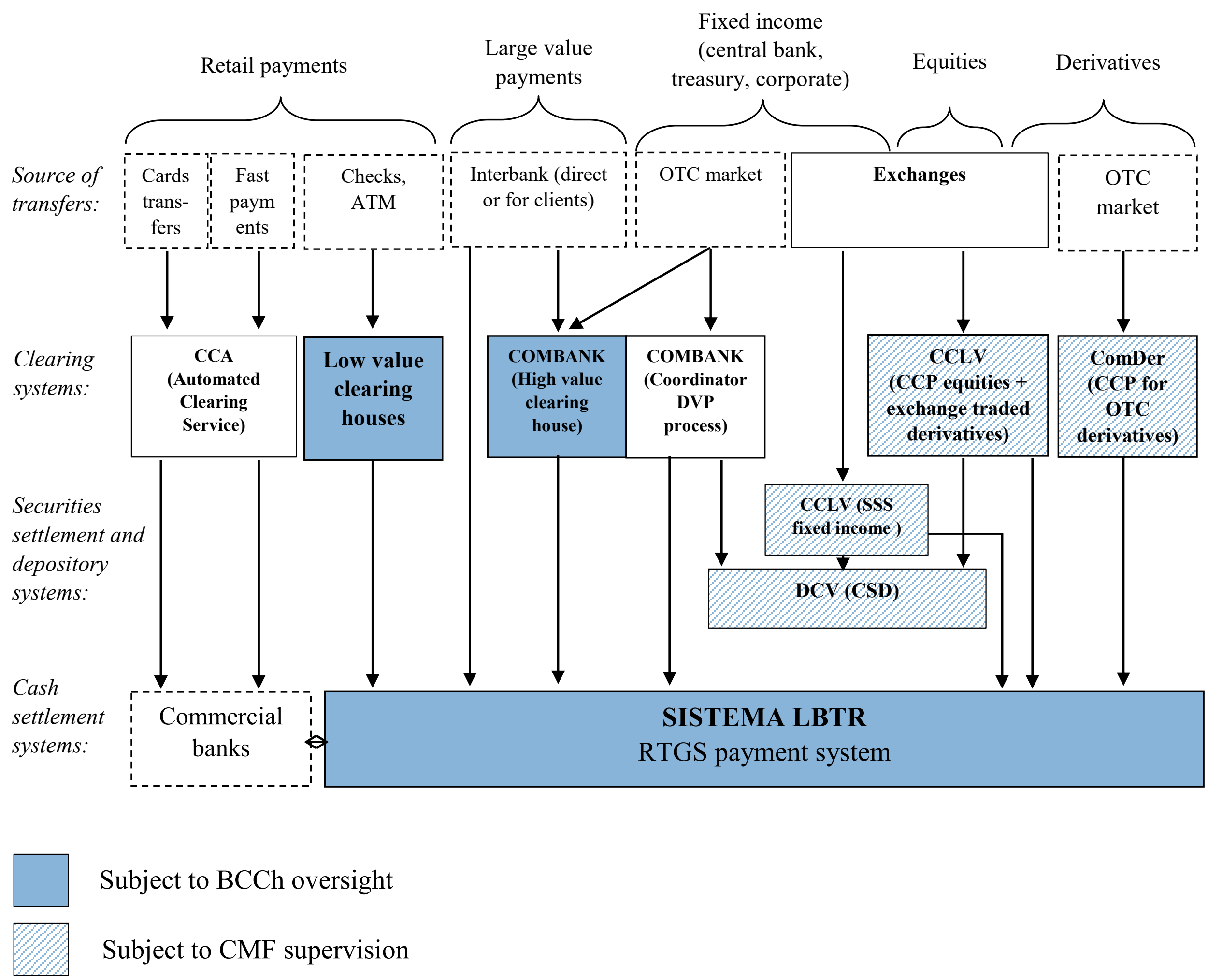
C. Sector-wide Liquidity Provision

76. **The BCCh should have powers to intervene with sector-wide liquidity provision, even though individual institutions within the sector may not have access to its services.** While in some cases—for example mutual funds—it is recommended that individual entities do not have access to central bank services, and should not be eligible for bilateral ELA, it is recommended that the BCCh should have the power to extend liquidity on a sector-wide basis to address systemic liquidity risks emanating in a particular sector. Without these powers the BCCh may be less able to stop liquidity stresses specific to one sector spilling over to other parts of the financial system.[20] Equally, the BCCh should have the power to directly intervene in key securities markets that may be under severe stress to address financial stability risks.[21]

[20] Under Federal Reserve Act s13(3), the central bank cannot lend to individual NBFIs, but can "…discount for any participant in any program or facility with broad-based eligibility…." Broad-based eligibility has since been defined as eligibility of five or more institutions.

[21] See Darryl King, Luis Brandao-Marques, Kelly Eckhold, and Diarmuid Murphy, "Central Bank Emergency Support to Securities Markets." IMF Working Paper 17/152 (July 2017).

APPENDIX I. FMI LANDSCAPE IN CHILE

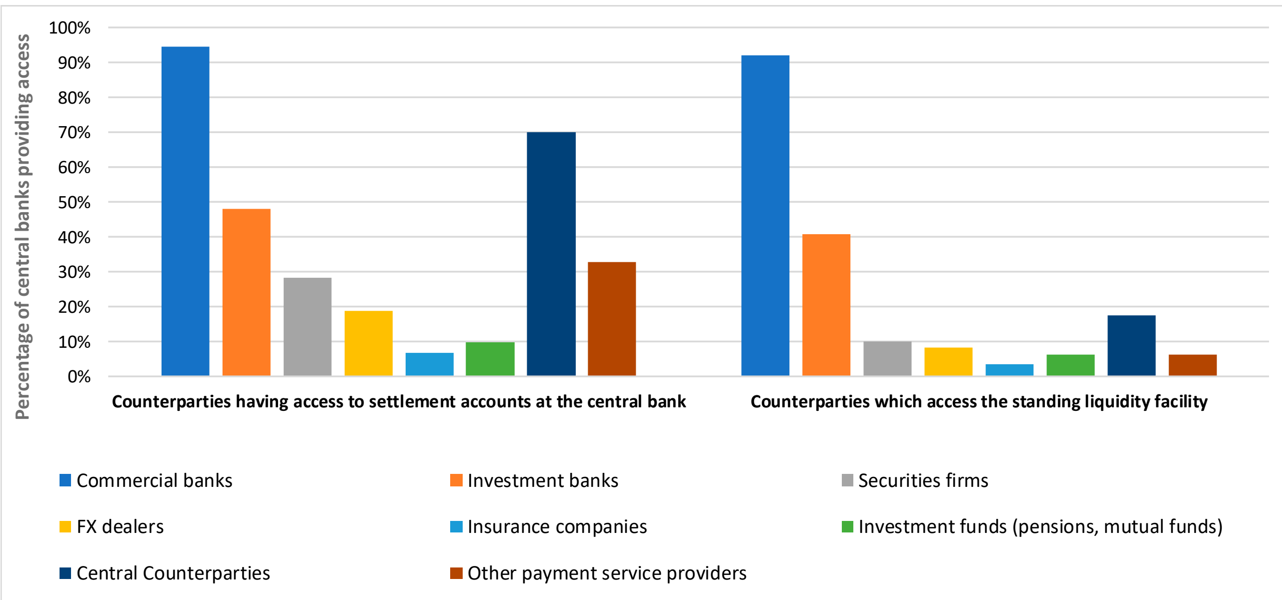


Source: IMF Staff

APPENDIX II. GLOBAL CENTRAL BANK ACCESS POLICIES AND PRACTICES FOR NBFIS

1. **There is broad uniformity among central banks in granting banks access to a settlement account and liquidity facilities.** Figure 1 presents statistics on access policies for 112 central banks from 2018. Close to 100 percent of central banks provide banks with access to a settlement account and liquidity. Historically banks are considered principal providers of payment services and are generally the main holders of settlement accounts in the central bank's payment system. As primary counterparts in monetary policy operations, the large majority of banks have access to the SLF. Some central banks consider access to central bank accounts as part of a "package" of privileges and obligations given to banks, where privileges include access to accounts, credit, and a deposit insurance scheme. Obligations comprise of banking regulation and supervision, including capital and liquidity requirements.

Figure 1. Global Practices in Provision of Access to Central Bank Facilities



Source: IMF Monetary Operations and Instruments Database, 2018.

2. **Policies toward NBFIs, however, are more heterogeneous.** One reason is that demand for central bank accounts differs across markets. Another is that a central bank's cost-benefit analysis of opening up to a specific type of financial institution may depend on local market conditions and result in different outcomes.[1] A common objective for central banks is to mitigate high concentrations of credit, liquidity, and operational risk by providing a safe liquid settlement asset and a high degree of assurance of service continuity. Another objective is to treat financial market participants in an even-handed manner and in some circumstances to permit access to a competitively neutral settlement institution. On the other hand, monetary policy considerations

[1] See Committee on Payment and Settlement Systems, "The Role of Central Bank Money in Payment Systems" (2003).

may discourage central banks from giving intraday credit to institutions that are not monetary policy counterparts. Also, moral hazard is relevant, where holders of settlement accounts may be misperceived to be within the safety net and hence likely to be eligible for emergency credit. Different policy outcomes reflect that central banks place different weights on these considerations. In practice all central banks allow themselves an element of discretion. And access to an account often is conditional upon certain requirements.

3. **Access policies toward CCPs have changed in recent years,** following the G20 mandate to clear all standardized OTC derivatives through CCPs and subsequently increased acknowledgment of CCPs' systemic importance. Figure 1 shows that of all types of NBFIs, CCPs are most often provided with access to a central bank settlement account (around 70 percent of all countries in which a CCP operates) and standing liquidity facilities (18 percent). Furthermore, the mission's benchmark analysis shows that several central banks allow CCPs to access a remunerated deposit facility for the deposit of cash collateral overnight (Figure 2). To mitigate any negative consequences for monetary policy implementation, CCPs are discouraged from change the level of deposits without notifying the central bank (Reserve Bank of Australia); or CCPs should provide funds up to a target level and place remaining funds with commercial counterparts (Bank of England). Furthermore, all central banks in Figure 2 that provide services to CCPs have explicit oversight responsibilities for CCPs.

4. **The line between the use of intraday liquidity, SLF, and ELA for CCPs is somewhat blurred.** All types of liquidity aim to provide CCPs with funds against high quality liquid collateral in case commercial liquidity facilities appear to be unavailable. Some central banks can only use ELA for these circumstances (U.S. Federal Reserve), whereas other central banks provide CCPs with intraday liquidity in order to be able to act fast in times of crisis (Switzerland). The Bank of England provides CCPs with access to the standard liquidity facility for sterling liquidity needs. Its use, however, needs the explicit approval of the Bank of England. For non-sterling liquidity needs, the BOE would use its ELA facility.

5. **Central securities depositories and other payment service providers frequently have access to a settlement account**. Figure 1 shows that 33 percent of central banks provide this type of access, whereas Figures 1 and 2 show that they rarely provide other types of access. Access to a central bank account allows CSDs and payment service providers to settle in central bank money using one settlement account, which increases the safety and efficiency of their settlements. In some countries, intraday credit is automatically connected to the settlement account. In other countries, central banks need to be convinced that the payment activities are significant, and access would reduce risk for the financial system. Some central banks, notably the Bank of England, allow Nonbank payment service providers access to a settlement account (without intraday liquidity) to support competition with incumbent payment service providers, and thus support innovative payments.

6. **Various central banks are also prepared to allow securities firms to open accounts to settle payment obligations arising from securities settlements.** In cases where securities firms are direct participants in settlement systems, a settlement account enables these transactions to be settled in central bank money. This reduces risks, particularly where activities of securities firms result in highly concentrated exposures or where there are efficiency or competitive equality issues because such institutions compete directly with banks in providing payment services to both banks and other Nonbanks.

Figure 2. Access Policies for Selected Central Banks

Access to a Settlement Account

Central Bank(s)	Banks	Credit unions / Co-ops	CCPs	CSDs and other FMIs	Securities dealers / Inv. Firms	Insurance companies
Australia, Switzerland	■		■	■	■	■
Brazil, Euro Area	■	■	■	■	■	
Canada	■	■			■	
Japan, Sweden, U.K.	■		■	■	■	
U.S.	■	■	■	■		
Singapore	■		■	■		
Mexico	■		■	■	■	■
Malaysia, Poland	■					

Access to the Intraday Liquidity Facility

Central Bank(s)	Banks	Credit unions / Co-ops	CCPs	CSDs and other FMIs	Securities dealers / Inv. Firms	Insurance
Australia, Switzerland	■		■	■	■	■
Brazil, Euro Area	■	■	■	■	■	
U.S.	■	■	■	■		
Japan, Sweden, U.K.	■		■	■	■	
Canada	■	■			■	
Singapore	■		■	■		
Malaysia, Mexico, Poland	■					

Access to Deposit Facilities

Central Bank(s)	Banks	Credit unions / Co-ops	CCPs	CSDs and other FMIs	Securities dealers / Inv. Firms	Insurance
Australia, Switzerland	■		■			
Canada	■	■	■		■	
Sweden	■		■	■	■	
U.S.	■	■	■	■		
U.K.	■		■		■	
Japan	■				■	
Brazil, Euro Area, Malaysia, Mexico, Singapore, Poland	■					

Access to Lending Facilities

Central Bank(s)	Banks	Credit unions / Co-ops	CCPs	CSDs and other FMIs	Securities dealers / Inv. Firms	Insurance
Australia, Switzerland	■		■			
Brazil	■	■	■	■	■	
Japan	■		■	■	■	
Canada	■	■	■		■	
U.K.	■		■		■	
Singapore	■		■			
U.S.	■	■				
Euro Area, Malaysia, Mexico, Sweden, Poland	■					

■ Yes, the central bank provides the facility

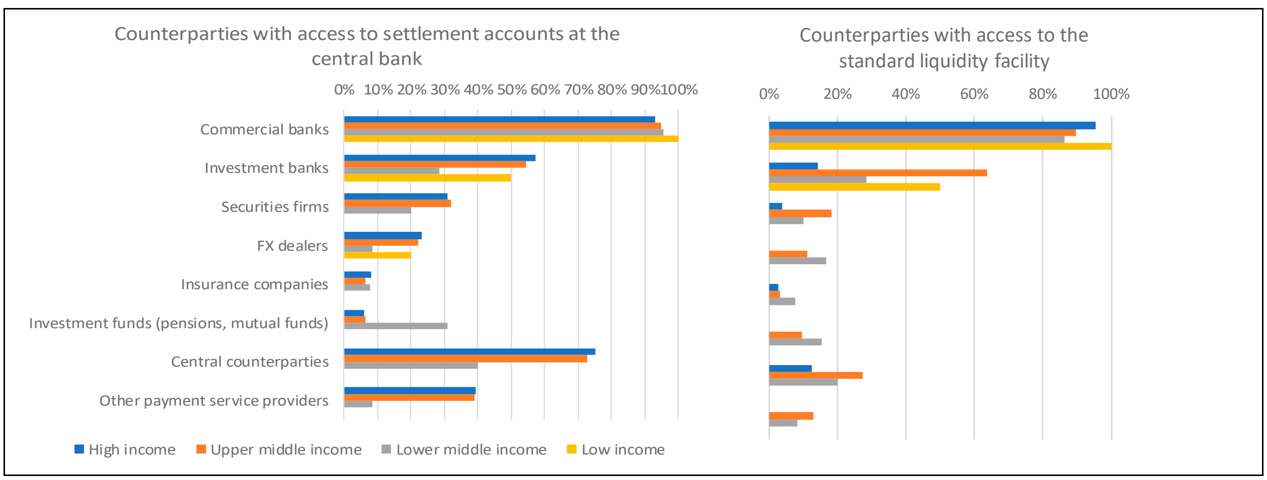
Source: IMF Staff.

7. **Other NBFIs rarely have access to central bank facilities.** For countries with insurance companies, 7 percent have access to settlement accounts at the central bank; for investment funds (pensions, mutual funds) its 10 percent. Access to the SLF, however, is even more rare: 3 percent for insurance companies and 6 percent for investment funds. In cases where access is provided, specific market circumstances may explain this. For example, in Switzerland insurance companies gained access to central bank facilities in order facilitate their direct participation in the Swiss franc money market and enhance market liquidity.

8. **Central bank ELA policies for NBFIs are less explicit.** Most central banks prefer constructive ambiguity over publicly defined eligibility criteria for ELA. In cases where eligibility criteria are published, most entail only banks, although speeches of various central bank officials suggest that central banks prefer flexibility in providing ELA to other systemically important financial institutions as well. Indeed, ELA to NBFIs, such as money market mutual funds during the 2008 global financial crisis contained potential significant losses to the economy.[2]

9. **Finally, central bank access policies vary dependent on the income level of the country.** Figure 3 groups 112 countries by income and shows the type of financial institution with access to central bank facilities. While high-income and upper middle-income countries are equally open in the provision of settlement accounts, they differ substantially in the provision of access to liquidity facilities, with high-income countries being more restrictive. One possible reason is that private liquidity sources are more abundantly available in high-income countries, and that central banks in other countries play a more central role in the provision of liquidity.

Figure 3. Income Level and Access to Central Bank Facilities



Source: IMF Monetary Operations and Instruments Database, 2018.

[2] See Marc Dobler, Simon Gray, Diarmuid Murphy, and Bozena Radzewicz-Bak, "The Lender of Last Resort Function after the Global Financial Crisis." IMF Working Paper 16/10 (January 2016).