International Economic Law Clinic

THE ROLE OF UNCITRAL MODEL LAW IN UNIFYING LAWS RELATED TO INTERNATIONAL PAYMENTS

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Submitted by

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Executive Summary

Scope of the MLICT
Given that it was adopted at a time when the commercial internet was still a number of years away, the 1992 UNCITRAL Model Law on International Credit Transfers (MLICT) fails to adequately address international payments in the 21st century. The MLICT is limited to proposing model laws covering only a narrow range of matters as it pertains to international payments:

- Regulating international credit transfers,
- Being applicable to international credit transfers between banks,
- Regulating the effects of payment orders – particularly in relation to the timing of the execution of payment orders between banks

Contemporary Developments in Cross-Border Payments
Since 1992, developments in payment systems have become increasingly multifaceted, and these elements would ideally be addressed in a new modern model law seeking to regulate international payments. Payment types have reached beyond just credit transfers between banks. They now cover new payment methods (such as digital payments or debit transfers) made by non-bank entities (such as Amazon, AliPay, eBay). Due to the developments that followed in the wake of e-commerce, digital trade has altered the form and function of payment systems today. This is acutely seen through new digital trade entrants, particularly in Fintech (especially for cryptocurrencies and Central Bank Digital Currencies) for example.

New Concerns for the Regulation of Cross-Border Payments in 2023
Given its narrow scope, the MLICT in its current form is incapable of governing issues brought on by the new payment systems used in domestic and international trade today. The following list provides a summary of the recommendations made in this Report regarding major matters that a new model law would ideally address in order to more comprehensively regulate international payments in 2023:

- Including inter-consumer, inter-business, and consumer-to-business payments;
- Introducing interoperability as a key policy objective for regulating cross-border payment systems;
- Proposing internationally set standards, principles, and guidelines for promoting standardized cross-border payment practices;
- Addressing the regulation and authentication of data transfers in digital payments;
- Recalibrating rules concerning the timing of cross-border payments due to the increased speed of payments made digitally;
- Facilitating the financial inclusion of small and medium-sized enterprises (SMEs) that would be the greatest beneficiaries of efforts to harmonize payment systems;

- An explicit reference to other relevant WTO legislations, in particular, the General Agreement on Trade in Services (GATS), recognizing the interlinkages between international payments and trade;
- Including a foresight clause to accommodate the rapid advancements in digital payment systems in the future;
- Addressing consumer protection, and the wider international legal norms surrounding international law on trade in services for cross-border payments.

Replacing the MLICT

For these reasons, UNCITRAL should replace the MLICT with a new Model Law which incorporates the current best payment system elements discussed in more detail in this White Paper.

List of Abbreviations

ASEAN	Association of South-East Asian Nations
B2B	Business-to-Business
B2C	Business-to-Consumer
BIS	Bank for International Settlements
C2B	Consumer-to-Business
C2C	Consumer-to-Consumer
CBDC	Central Bank Digital Currencies
CPMI	Committee on Payment and Market Infrastructures
CPSIPS	Core Principles for Systemically Important Payment Systems
CPSS	Committee on Payment and Settlement Systems (*now CPMI*)
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DEA	Digital Economy Agreement
DEPA	Digital Economy Partnership Agreement
EMEA	Europe, Middle East and Africa
FSB	Financial Stability Board
FX	Foreign Exchange
GDP	Gross Domestic Product
IFI	International Financial Institutions
IMF	International Monetary Fund
LVPS	Large Value Payment System
mCBDC	multi-CBDC
MLEC	Model Law on E-Commerce
MLICT	Model Law on International Credit Transfers
P2P	Peer-to-Peer
PFMI	Principles for Financial and Market Infrastructures
PSD2	EU (revised) Payment Services Directive
PvP	Payment vs. Payment
RTGS	Real-Time Gross Settlement
SME	Small and Medium-sized Enterprise
SWIFT	Society for Worldwide Interbank Financial Telecommunication
UNCITRAL	United Nations Commission on International Trade Law
UPC	Universal Payment Channels

1 Introduction

In 1992 the United Nations Commission on International Trade Law (UNCITRAL) adopted a Model Law on International Credit Transfers (MLICT) which was endorsed by UNGA Resolution 47/34.[1] Its stated goal was to harmonize the international legal landscape as it pertained to the then-existing forms of international payments. As such, this 30-year-old model law does not address the wide-ranging technological advancements in digital payments that has transpired since. There is therefore a need to replace the MLICT with a new model law to address the disconnect between the current widely diverse and rapidly changing international economic and financial landscape, as well as the limited payment systems covered by it.

Today, the financial system is significantly more internationalized than it was in 1992. It is powered in no small part by the revolution in information and communication technologies and the growth in the globalization of trade, investments, and capital flows we have seen unfold in the last thirty years. The present report aims to provide analytical support and a rationale for the reformulation of the UNCITRAL rules and replacing the 1992 law with a new model law that will harmonize international laws on cross-border payments. This could take the form of a revised MLICT. However, the better approach would be to formulate a new Model law due to the fact that the MLICT was not widely adopted in the first place and drafting a new model law could provide a new and highly relevant option to provide a revised legislative text for modern international payments.

This report analyses the gaps in the MLICT model payment provisions. It offers suggestions on how the MLICT can be amended to reflect the realities of the current international payment landscape. The analysis begins by mapping out the main provisions of the MLICT (Section 2). Following this analysis, Section 3 offers the developments in the payments landscape since the adoption of the MLICT that pose new challenges for the regulation of international payments. Section 4 sets out the gaps resulting from said developments and the subsequent inability of the MLICT to govern newer forms of international payments. Section 5 highlights case studies of other trade or digital economy agreements between various States that have tackled the issue of governing international payments in the digital landscape of the 21st century. Section 6 analyses best practices for international payment systems including scope, interoperability, international

[1] United Nations General Assembly, Resolution 47/34, U.N. Doc. A/RES/47/34 (February 9 1993).

standards, data transfers, timing, cybersecurity, financial inclusion, digital innovation, reference to international rules on trade in services, and consumer protection norms. The report concludes with a Matrix of Recommendations encapsulating our entire analysis.

2 Legal Analysis of the Model Law on International Credit Transfers (MLICT)

2.1 Role of UNCITRAL Model Laws

UNCITRAL model laws are legislative texts that serve as recommendations for States to implement similar legislation into their national laws.[2] Model laws encourage greater acceptance when they offer to States more flexibility rather than mandates. Such flexibility allows States to make textual accommodations for differences in various national laws, striking a balance between harmonization of national laws as well as accommodating for differences in legal regimes. Nevertheless, to remain true to the intent and purpose of the UNCITRAL model laws, said national implementations should take place within certain limits. A State's national laws should recognize and reflect the basic elements of a model law even if some details of its implementation are different. Otherwise, the ultimate aim of model laws to unify legal rules would be jeopardized.

2.2 Role of the MLICT

The MLICT was prepared 30 years ago in response to two major trends: the (a) increasing use of electronic means in payment orders and (b) credit transfers becoming dominant in international funds transfers.[3] Despite the fact that it has not necessarily succeeded in unifying legal rules on international payment, the MLICT is still the most holistic text in this field.[4] The EU passed a directive based on its principles. However, no other State has implemented the MLICT within their domestic legal system.[5] That said, as discussed in more detail in Section 5, the past decade has seen the adoption of regional legal instruments regulating international payments in ways not anticipated or addressed by the MLICT. *Prima facie*, this indicates that the MLICT is no longer fully capable of governing international payments in the 21st century.

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2 United Nations Commission on International Trade Law, A Guide to UNCITRAL Basic facts about the United Nations Commission on International Trade Law, at 14.

3 United Nations Commission on International Trade Law, Explanatory Note by the UNCITRAL Secretariat on the UNCITRAL Model Law on International Credit Transfers, at 14-15, U.N Sales No. E.99.V.11.(1994).

4 Apart from the MLICT, there are two conventions on international payments prepared by UNCITRAL: United Nations Convention on Independent Guarantees and Stand-by Letters of Credit (1995) and United Nations Convention on International Bills of Exchange and International Promissory Notes (1988). But both of them have been ratified by few states.

5 Directive 97/5/EC of the European Parliament and of the Council of 27 January 1997 on cross border credit transfers, 1997 *O.J.(L 43) 25*. It had been implemented by EU member states before 1999.

2.3 What is Covered by the MLICT

Given the 'gap-filling' nature of this report's recommendations in the last Sections, special attention has been paid to determine what elements of current payments systems are missing in the MLICT. The subsequent subsection will start with what the MLICT covers: principally, its subject-matter scope covering international credit transfers, its applicability scope covering bank entities, its limited authentication procedures, its regulatory principles on the processing times of transfers, and its attempt to include non-bank entities by using a catch-all clause.

2.3.1 Subject-Matter Covered: Credit Transfers

As its title indicates, the "Model Law on International Credit Transfers" covers '*international credit transfers*'. A credit transfer is defined in Article 2(a) of the MLICT as:

> "[The] series of operations, beginning with the originator's payment order, made for the purpose of placing funds at the disposal of a beneficiary. The term includes any payment order issued by the originator's bank or any intermediary bank intended to carry out the originator's payment order."[6]

Reflected in practical terms, the first operation must be a request by the buyer to its bank to place funds at the disposal of the seller of the good or service. In other words, the provider of goods or services obtains a "credit" at the purchaser's bank. The second operation could involve a request by the purchaser's bank to the seller's bank (or any other intermediary bank) to carry out the transfer to the seller's account.

The definition provided indicates that a *credit* transfer is made distinct from a *debit* transfer. A debit transfer is essentially when the purchaser withdraws or "pulls" funds from the seller's bank account.[7] Essentially, the main difference between a credit and a debit transfer is who initiates the transaction. In a credit transfer, the buyer initiates the transfer. In a debit transfer, the seller initiates the transfer.

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6 Model Law on International Credit Transfers art. 2(a) (UNCITRAL, 1992).

7 Omotunde E. G. Johnson et al., *Payment Systems, Monetary Policy and the Role of the Central Bank* (International Monetary Fund, 1998), 69, https://www.elibrary.imf.org/display/book/9781557756268/9781557756268.xml.

The definition of a "payment order" in the MLICT certifies this difference between credit and debit transfers. Article 2(b) of the MLICT provides that:

> "[An] unconditional instruction, in any form,[8] by a sender to a receiving bank to place at the disposal of a beneficiary a fixed or determinable amount of money if (i) the receiving bank is to be reimbursed by debiting an account of, or otherwise receiving payment from, the sender, and (ii) the instruction does not provide that payment is to be made at the request of the beneficiary." [9]

The legal framework of the MLICT is mainly based around payment orders. To be valid under the MLICT, a payment order must be issued by the buyer or an authorized person. In this regard, a seller cannot initiate a payment order under the MLICT. This further cements the exclusion of debit transfers from the subject-matter scope of the MLICT.

Until the last century, commercial debit transfers did not exist internationally. Because of this, the MLICT was designed to apply exclusively to credit transfers.[10] Consequently, the subject-matter contained within the scope of the MLICT is limited to credit transfers.

Furthermore, the MLICT limits its scope to international credit transfers and not domestic credit transfers. Article 1(1) provides that international credit transfers occur between "any sending bank and its receiving bank […] in different States."[11] This further limits the subject-matter scope of the MLICT to credit transfers that are made between two or more States.

2.3.2 Entities Covered: Banks

The bank-focused characteristic of the MLICT is fully reflected in its provisions on payments. The MLICT provides that once a payment order is accepted by the receiving bank, the receiving bank is obliged to execute the payment order or

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8 By using "any form", the UNCITRAL committee intended to imply that the MLICT covers payment orders made in electronic form or paper form. *See* United Nations Commission on International Trade Law, Explanatory Note by the UNCITRAL Secretariat on the UNCITRAL Model Law on International Credit Transfers, at 16, U.N Sales No. E.99.V.11.(1994).

9 Model Law on International Credit Transfers art. 2(b) (UNCITRAL, 1992).

10 United Nations Commission on International Trade Law, Report of the Working Group on International Payments on the Work of Its Sixteenth Session, at 26, U.N. Doc. A/CN.9/297 (November 13, 1987).

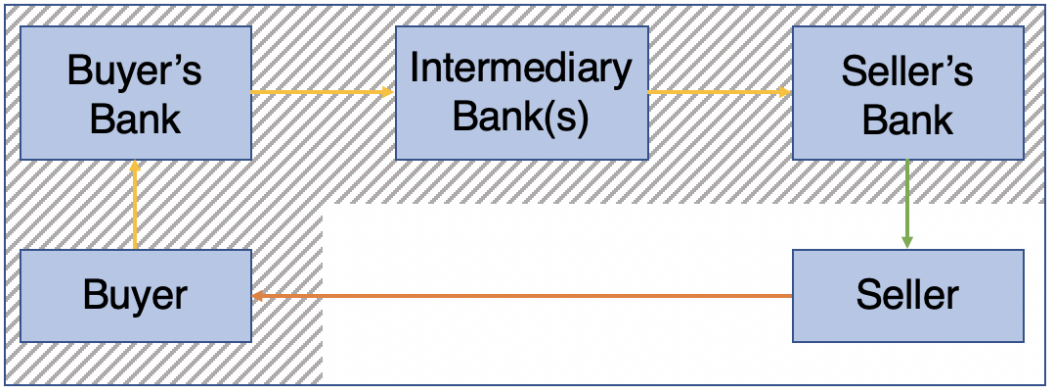
11 Model Law on International Credit Transfers art. 1(1) (UNCITRAL, 1992).

transfer funds to the seller,[12] and in the meantime, the sender becomes obliged to pay for it.[13] But the payment, although as an obligation of the sender, involves the banks' activities. Firstly, debiting an account of the payer *at a bank* is the only way for the buyer to complete the payment.[14] This would exclude fund transfers in which the payment is made in cash, such as remittances. Secondly, the MLICT provides alternative ways only when the sender is a bank, including crediting the receiving bank's account with the sender, a third bank or the central bank, and through netting agreements.[15]

UNCITRAL also explicitly acknowledged that a receiving bank will never have an account with a non-bank sender,[16] which in turn proves that the depository financial institutions are only banks in the context of the MLICT. Therefore, the MLICT does not cover the methods of payment which non-bank entities can make. Instead, article 6(c) of the MLICT refers to other applicable laws.[17]

In short, the MLICT does not provide the legal effects of a payment order in detail. Banks have the leeway to decide how to complete the payment and how to execute the payment order.

Figure 1. The simplified model of a credit transfer



Above is a simplified model of a credit transfer covered by the MLICT (Figure 1). The yellow arrows represent payment orders and the accompanying fund flows from senders (including the buyer and following banks) to receiving banks. The green arrow represents the fund flow between the seller's bank and the seller. As

12 Model Law on International Credit Transfers arts. 8(2),10(1) (UNCITRAL, 1992).
13 Model Law on International Credit Transfers art. 5(6) (UNCITRAL, 1992).
14 *See* Model Law on International Credit Transfers art. 6(a) (UNCITRAL, 1992).
15 *See* Model Law on International Credit Transfers art. 6(b) (UNCITRAL, 1992).
16 *International Credit Transfers: Comments on the Draft Model Law on International Credit Transfers: Report of the Secretary-General*, 1991 Yearbook of the United Nations Commission on International Trade Law. 69, U.N Doc. A/CN.9/346.
17 *See* Model Law on International Credit Transfers art. 6(c) (UNCITRAL, 1992).

article 19(2) of the MLICT states, after the seller's bank accepts a payment order, even if the amount of the payment order is insufficient, the seller's claim against the buyer (the orange arrow) is not regulated by the MLICT.[18] This is because the MLICT does not govern the payment between the buyer and the seller directly, and only regulates the inter-bank (bank-to-bank) credit transfers.

2.3.3 Limited Authentication Procedures

Authentication procedures are crucial to all payments, and especially international payments where banks working under the jurisdiction of different states must ensure the validity of a payment order. To this end, the MLICT addresses authentication procedures as an integral part of international payments.

Article 5(2) of the MLICT provides that a payment order should be subject to authentication other than by means of a mere comparison of signature.[19] Obviously, the authentication procedure could not guarantee that every actual sender has the authority. Thus, the MLICT prescribes exceptional circumstances in which a purported sender would be bound by an unauthorized payment order. First, the receiving bank complied with a commercially reasonable method of authentication.[20] Second, it must be issued by a present or former employee of the purported sender or a person whom the purported sender enabled to gain access to the authentication procedure.[21] Therefore, the sender and the receiving bank must go through a set of authentication methods to validate a payment order.

Though authentication is addressed in the MLICT, the authentication procedure is not detailed. For example, modern digital authentication procedures inherently require transfers of data, however, the MLICT offers no guidance on such complex authentication procedures.

2.3.4 Timing Regulations for Payments originating from Banks

The MLICT addresses timing issues arising out of regulatory or administrative requirements that slow the processing of cross-border payments. To do so, the MLICT outlines its rules on 'acceptance or rejection' and 'revocation' of international payments. However, the form these regulations take are based on

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18 Model Law on International Credit Transfers art. 19(2) (UNCITRAL, 1992).
19 Model Law on International Credit Transfers art. 5(2) (UNCITRAL, 1992).
20 Model Law on International Credit Transfers art. 5(2) (UNCITRAL, 1992).
21 Model Law on International Credit Transfers art. 5(4) (UNCITRAL, 1992).

the credit focus of the MLICT. Consequently, the MLICT does not address timing issues that may arise out of non-credit international payments as discussed below.

The MLICT allows the receiving bank to accept a payment order not only by giving a notice to the buyer but also in an implied way by, for example, debiting the buyer's account.[22] In the meantime, it also permits the receiving bank to reject a payment order without giving any reason but by giving a notice of rejection no later than on the banking day following the end of the execution period.[23] As discussed in the preceding sub-sections, the form in which acceptance or rejection is permitted is only applicable to credit transfers that are initiated by the buyer. Consequently, this excludes from the scope of the MLICT non-credit transfer related timing issues, and especially issues that may occur due to instantaneous payments (as discussed in subsequent sections of this report).

The MLICT also addresses the issue of revocation in Article 12, which states that the revocation order must be received by a receiving bank at a time and in a manner sufficient to afford the receiving bank a reasonable opportunity to act.[24] The MLICT does not state what is a "reasonable opportunity to act" or a "sufficient" opportunity to revoke. Instead, what is "sufficient" may vary from bank to bank.[25] Therefore, the receiving bank would not be bound by the revocation, and the receiving bank can decide by itself whether it needs to suspend the execution of the payment order or continue. This causes a separate problem—on top of the issues surrounding the regulation of timing and processing concerns—particularly pertaining to objective standards and guidelines in the regulation of international payments. This is addressed later in this report in more detail in the context of international standards.

2.3.5 "Other Entities" and Financial Inclusion

Applicability to non-bank entities is partly addressed in the MLICT. Article 1(2) states that:

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22 *See* Model Law on International Credit Transfers arts. 7(2), 9(1) (UNCITRAL, 1992).

23 *See* Model Law on International Credit Transfers arts. 7(3), 9(2) (UNCITRAL, 1992). And execution period ends on the banking day after the day when a payment order is received, *see* Model Law on International Credit Transfers arts. 2(k), 11(1) (UNCITRAL, 1992).

24 Model Law on International Credit Transfers arts. 12(1)-(2) (UNCITRAL, 1992).

25 *International Credit Transfers: Comments on the Draft Model Law on International Credit Transfers: Report of the Secretary-General*, 1991 Yearbook of the United Nations Commission on International Trade Law. 85, U.N Doc. A/CN.9/346.

> "This law applies to other entities that as an ordinary part of their business engage in executing payment orders in the same manner as it applies to banks."

Therefore, the scope of the MLICT claims to include credit transfers made by "other entities" alongside banks as expressed in the UNCITRAL Explanatory Note to the MLICT.[26]

The problem is that the MLICT does not specify which provisions specifically apply to non-bank entities that are involved in international payments. Presumably, the phrase "executing payment orders in the same manner as it applies to banks" means that the non-bank entities the MLICT claims to be applicable to must be operating *similarly enough* to banks. However, this is not a sufficiently precise way to cover international payments enabled by non-bank entities. Because in the article 2(l) of the MLICT, execution is defined as:

> "[I]n so far as it applies to a receiving bank other than the beneficiary's bank, [execution] means the issue of a payment order intended to carry out the payment order received by the receiving bank."[27]

What is missing is any reference to payment services other than issuing payment orders. This silence can reasonably be inferred to mean that other payment service providers are excluded from its applicable scope. Non-bank entities, by definition, are not the same as a bank and – though some may operate similar to a bank – do not operate the same way as a bank. This makes Article 1(2) at best applicable to non-bank entities that function for all intents and purposes almost the same way as traditional banks do. As illustrated in more detail below, developments and the entry of new players in the payments landscape makes the catch-all Article 1(2) of the MLICT functionally irrelevant.

2.4 Summary of Analysis

In summary, Section 2 of this report has laid out that the MLICT covers:

- The regulation of international credit transfers within its subject-matter scope;

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[26] United Nations Commission on International Trade Law, Explanatory Note by the UNCITRAL Secretariat on the UNCITRAL Model Law on International Credit Transfers, at 15, U.N Sales No. E.99.V.11.(1994).

[27] Model Law on International Credit Transfers art. 2(l) (UNCITRAL, 1992).

- The facilitation of international credit transfers between bank entities (actions on behalf of the seller(s) and buyer(s) respectively);
- The limited authentication procedures necessary for international credit transfers;
- The regulation of the timing of transactions and timing-related issues that may arise (acceptance or rejection and revocation) therefrom;
- The limited inclusion of non-bank participants in international credit transfers that fall within the meaning of the term “other entities”.

In Section 3, we will analyze new forms of international payments which require additional or different regulation than has been prescribed in the MLICT.

3 Evolution and enormous growth of international payments and new payment systems – a rationale for a new model law

3.1 General Developments in International Payments since 1992

Since the drafting of the MLICT, the international payments landscape has evolved in size, but also with regard to the standards imposed on market participants. Many of these new payment systems are not covered by the MLICT. This is hardly surprising given the 30 years that have passed since its adoption. Indeed, as described below, the incredible growth of cross-border payments provides a strong rationale for a new model law to harmonize key elements of payment systems.

We have witnessed leaps in the international mobility of goods, services, capital, and people. World merchandise trade exports grew in value by 614 percent from 1990-2022 and by 137 percent from 2005-2022.[28] Meanwhile, exports of commercial services rose by 165 percent from 2005 (earliest year data is available) to 2022. [29] International tourist arrivals registered a growth of 122 percent from 1995 (earliest data available) to 2019 and 60 percent from 2005-2019.[30] Finally, annual remittance flows increased by 1,020 percent from 1990-2022 and by 202 percent from 2005-2022.[31] These activities have translated into a growing role for cross-border payments.

According to the Financial Stability Board (FSB),[32] "cross-border e-commerce activity has contributed to the growth of person-to-business cross-border retail payments and is expected to grow substantially further in the years to come. 15-20% of e-commerce transaction value is already international. International travel and migration continue to grow, creating additional demand for cross-border payments. […] These trends in the real economy suggest that cross-border payments represent an important and growing part of total payments volumes."[33]

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28 World Trade Organization, "WTO Stats," accessed December 10, 2023, https://stats.wto.org/.

29 World Trade Organization.

30 World Bank. "International tourism, number of arrivals." World Development Indicators, The World Bank Group, https://data.worldbank.org/indicator/ST.INT.ARVL. Accessed 3 December 2023.

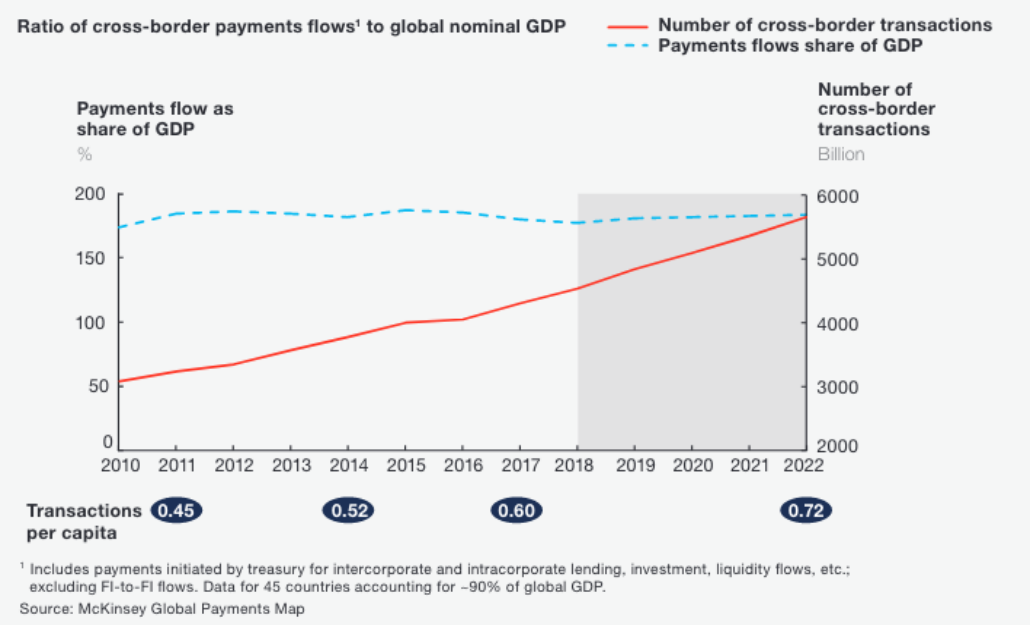
31 World Bank. "Personal remittances, received (current US$)." World Development Indicators, The World Bank Group, https://data.worldbank.org/indicator/BX.TRF.PWKR.CD.DT. Accessed 3 December 2023.

32 Financial Stability Board, "Enhancing Cross-Border Payments," Stage 1 Report to the G20, April 9, 2020, 1, https://www.fsb.org/2020/04/enhancing-cross-border-payments-stage-1-report-to-the-g20/.

33 Financial Stability Board, 2–3.

In absolute terms, cross-border flows of funds amounted to US$150 trillion in 2022, representing a 13 percent increase from just twelve months ago.[34] Based on these transactions, the share of commercial (i.e. from businesses) cross-border payments was bigger for all regions than the share of consumer (i.e. from households or individuals) cross-border payments. However, even as business-to-business (B2B) transactions continue to be the main driver of cross-border revenue (69% of the total), the consumer categories bring higher profit margins. The consumer categories of cross-border payments are also estimated to grow faster in the short-to-medium-term relative to the B2B segment. Such growth is seen to emanate from the consumer-to-business (C2B) segment due to a projected rise in travel and e-commerce spending.[35]

Figure 2. Growth of cross-border transactions, 2010-2022



As Figure 2[36] shows, the average size per transaction has also become smaller (with the value of cross-border payments as a share of gross domestic product (GDP) almost flat but the number of transactions was much steeper). This indicates a trend for low-value, high volume transactions in cross-border payments. This confirms the emerging importance of consumers in cross-border payments.

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34 McKinsey & Company, "On the Cusp of the next Payments Era: Future Opportunities for Banks," McKinsey Global Payments Report, September 21, 2023, https://www.mckinsey.com/~/media/mckinsey/industries/financial%20services/our%20insights/on%20the%20cusp%20of%20the%20next%20payments%20era%20future%20opportunities%20for%20banks/on-the-cusp-of-the-next-payments-era-future-opportunities-for-banks.pdf.

35 McKinsey & Company, p.7.

36 McKinsey & Company, "A Vision for the Future of Cross-Border Payments," p.11.

3.2 New Forms of International Payments

As set out in Section 2, the applicable scope of the MLICT is mostly delineated by the dichotomy between credit transfer and debit transfer. Traditional forms of cross-border payment include correspondent banking, interlinked domestic payment systems, card networks, remittance services (e.g., money transfer operators)[37] while innovation and technology have introduced newer forms (such as alternative payment methods based on fintech and cryptocurrencies). These newer types of payments arguably fall outside of the scope of a credit transfer as established under the MLICT.

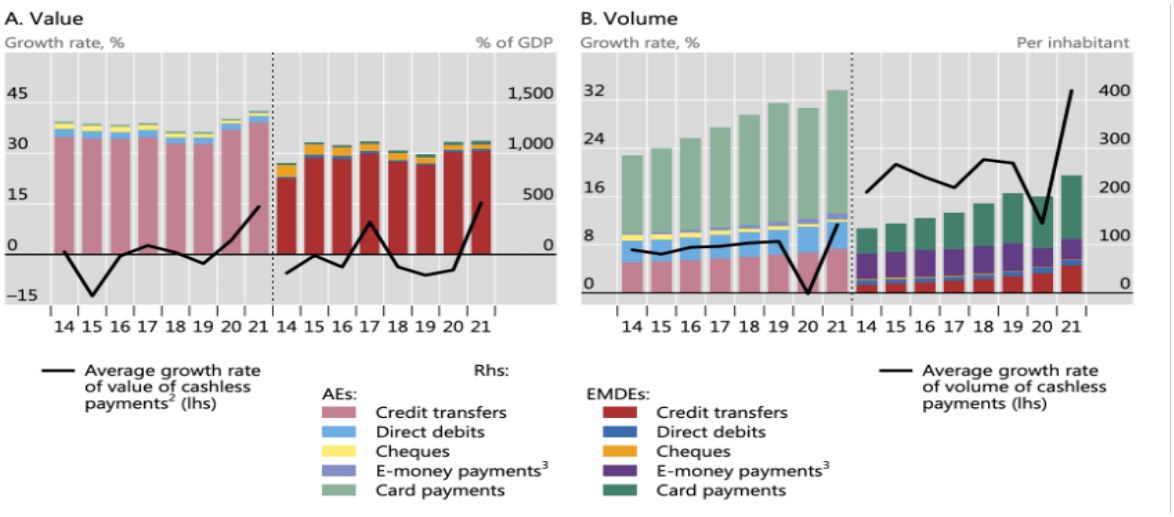
Payments initiated with the help of digital devices are classified according to the instrument type used to perform the payment. To illustrate, if an end user initiates a credit transfer using their bank's mobile banking application, this is counted as a "credit transfer"; if tourists pay at a store by transmitting the payment card information stored on their mobile phone using contactless technology, this is counted as a "card payment".[38]

In the CPMI's terms, the classification of payment types is between cashless payments and deposit/withdrawal transactions. Cashless payments are further broken down into credit transfers, direct debits, cheques, card payments, and e-money payments. According to CPMI's statistics, credit transfer is still dominant in terms of the value of cashless payments while card and e-money payments count more weight in terms of the volume as can be seen from Figures 3 and 4.

37 Financial Stability Board, 3.

38 Committee on Payments and Market Infrastructures. "Methodology of the Statistics on Payments and Financial Market Infrastructures in the CPMI Countries (Red Book Statistics)," August 30, 2017, 20, https://www.bis.org/cpmi/publ/d168.htm.

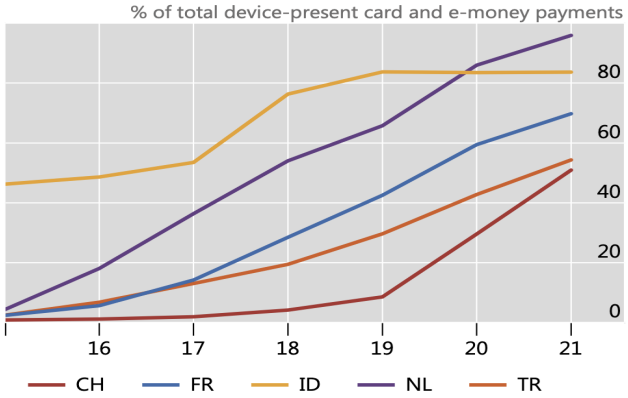
Figure 3. Value and volume of cashless payments, 2014-2021



Source: CPMI[39]

NB: AEs = advanced economies; EMDEs = emerging market and developing economies

Figure 4. Share of contactless card payments to total card payments, in %



Source: CPMI[40]

NB: CH=Switzerland; FR=France; ID=Indonesia; NL=Netherlands; TR= Türkiye.

The CPMI's classification is not unique. The EU (revised) Payment Services Directive (PSD2) also breaks payment transactions into debit transfers, credit transfers, payment transactions through a payment card or a similar device.[41] Therefore, card payment is a type to be reckoned with, especially in recent years. The use of contactless card payment has been boosted due to the pandemic.

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39 Marc Glowka, Anneke Kosse, and Robert Szemere, "Digital Payments Make Gains but Cash Remains" (Committee on Payments and Market Infrastructures, January 2023), 20, https://www.bis.org/statistics/payment_stats/commentary2301.pdf.

40 Committee on Payments and Market Infrastructures, "Covid-19 Accelerated the Digitalisation of Payments," December 9, 2021, 2, https://www.bis.org/statistics/payment_stats/commentary2112.pdf.

41 Directive 2015/2366 of the European Parliament and of the Council of 25 November 2015 on Payment Services in the Internal Market, annex 1, 2015 O.J. (L 337) 35.

(Figure 4) For contactless card payments, the transmission of card information and authentication are inseparable, which are mainly provided by technology companies that are not traditional financial institutions.

In summary, the following new types of payments have emerged and become significant, but do not fall within the scope of the MLICT:

- International direct debit transfers,
- Cross-border e-money payments, and
- Online card payments.

Though credit transfers may still dominate the field of international payments, the new forms of payments make it more and more difficult to govern ***all*** forms of international payments if credit transfers are the only type of payment subject to regulation.

3.3 New Participants in the International Payments Ecosystem

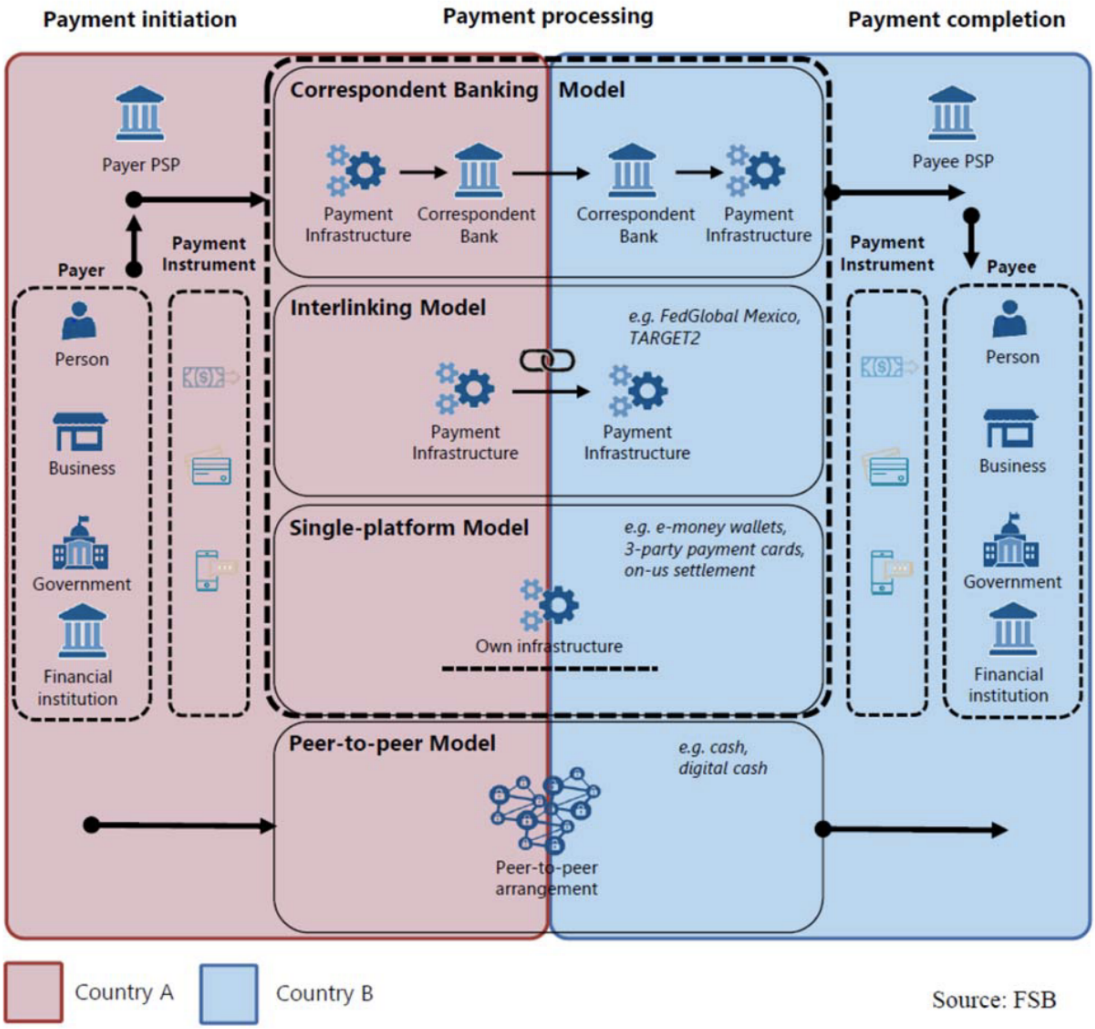
The emergence of new types of payments in the field has introduced new players. However, as expressed in Figure 5, the correspondent bank model is no longer the single player in cross-border payments, let alone a monopoly. Furthermore, the lack of reference to credit transfers likewise evidences the introduction of alternative payment methods.

Other new forms of decentralized payment systems have entered the market due to developments in fintech (which will be discussed in more detail later in this report). According to Stripe, cross-border payments may be implemented using wire transfers, international checks, foreign exchange brokers, international money orders, online payment platforms, and crypto currencies transfers.[42] The first 5 forms can be seen as part of the ecosystem in the top three blocks of Figure 5: the correspondent banking model, the interlinking model, and the single-platform model. The last two payment classes in Figure 5: the single-platform model and peer-to-peer (P2P) model are either quite nascent or did not exist at the time the MLICT was drafted. The last class, the P2P model, is a decentralized framework wherein buyers/senders and sellers/receivers transact directly with no intermediary bank, foreign exchange broker, online payment service provider, or any such similar entity. “Peer-to-peer payments can take a variety of forms; the simplest form is a direct cash payment. The emergence of

[42] Stripe, “International Payments 101: The Essential Guide | Stripe,” Stripe, accessed November 18, 2023, https://stripe.com/en-ch/resources/more/international-payments-101-what-they-are-and-how-they-work;.

distributed ledger technologies can allow peer-to-peer transactions to be executed electronically between parties using a shared ledger structure where the transaction is settled, and holdings are recorded."[43]

Figure 5. Decentralized versus centralized or peer-to-peer (P2P) cross-border payments



Source: Financial Stability Board[44]

Thus, banks are now far from being the only participants in the field of international payments. Though the MLICT refers to "other entities" as explained in Section 2, this does not adequately capture new entrants into the field of international payments – especially those that do not use a payment system 'similar to banks'.

43 Financial Stability Board, "Enhancing Cross-Border Payments," 11.
44 Financial Stability Board, "Enhancing Cross-Border Payments," 8.

3.4 Payment System Standards and Principles since the MLICT

The policy landscape for the financial system and the international payments system, has been evolving parallel to these aforementioned new types of payments and new entrants into the field. For example, the Principles for Financial and Market Infrastructures (PFMIs) are a set of 24 principles that encompasses "systemically important payments systems", being one of the major financial market infrastructures (FMI). An FMI is defined in the CPMI (2012) report as a "multilateral system among participating institutions, including the operator of the system, used for the purposes of clearing, setting, or recording payments".[45]

Of the 24 principles, 18 apply to payment systems (See Appendix B). The PFMIs cover general organization (i.e., legal basis, governance, and framework for the general management of risks); credit and liquidity risk management; settlement finality and delivery; default management; general business and operational risk management; access; efficiency; communication procedures and standards; transparency; and responsibilities of central banks, market regulators, and other relevant authorities for financial market infrastructures.

The main policy aims of the PFMIs with respect to systemically important payment systems are (a) to enhance safety and efficiency; (b) to limit systemic risk and (c) foster transparency and financial stability. In addition, the PFMIs seek to safeguard data privacy; to promote competition, and investor and consumer protection; and to enhance anti-money laundering measures. Similar principles are arguably not expounded in the text of the MLICT.

The PFMIs are aimed at setting domestic standards for payments. A well-managed domestic payments system can translate to cross-border payments that are credible and efficient. A referral to such standards which would support a more stable international payments sector are not present in the MLICT.

3.5 Issues arising from Developments in Online Payment Platforms, Cryptocurrencies, and CBDCs

As a new development in the international payments landscape, the extensive growth of online payment platforms (like PayPal), CBDCs, and cryptocurrencies, have arguably exposed the inadequacies of the laws and regulations on payments. States are having difficulty governing fintech not only internationally

[45] Committee on Payments and Market Infrastructures, 7.

but also domestically. Mersch (2019) observes that fintech has been quite aggressive in expanding into the payments sector "where firms have expanded their presence in non-capital-intensive business such as cross-border transfers".[46] Cryptocurrencies, CBDCs, and other new developments in international payments were briefly touched upon under the previous headings. However, due to the complex nature of their regulation, under this heading, we focus solely on their role in international payments.

3.5.1 Online Payment Platforms

An important new payment system is so-called "open banking" which enables non-bank entities to access the user's account data in commercial banks to provide payment services. But such non-banking entities need to have an account with a commercial bank to obtain a license. Offering payment services also requires having access to key payment infrastructures that execute and settle payments, which could be easily refused by commercial banks.[47]

Server-based e-money schemes, like PayPal, have experienced great growth in the last couple of decades and may be expected to remain important for C2B and P2P transfers (e.g., for international e-commerce transactions, international travel expenses, and remittances). Note that cross-border payments in general can either be categorized as retail or wholesale. Wholesale cross-border payments are generally large-value payments among financial institutions, large corporations, and governments. On the other hand, retail cross-border payments are transactions by individuals and businesses.

Meanwhile, in defining e-money, we take into account three key elements. E-money (i) is the liability of the issuer, (ii) is prepaid, and (iii) is a multi-purpose means of payment. Examples of e-money are prepaid cards issued by the major credit card networks like Visa and Mastercard, stored-value cards for public transport that are also accepted at the point of sale (POS) (like the Octopus card of Hong Kong) and PayPal balances. Given these elements, schemes like Bitcoin are not e-money because they do not constitute a liability of any issuer since

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46 Yves Mersch, "Lending and Payment Systems in Upheaval: The Fintech Challenge" (the 3rd annual Conference on Fintech and Digital Innovation, Brussels, February 26, 2019), https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190226~d98d307ad4.en.html.

47 European Commission, "Payment Services: Revised Rules to Improve Consumer Protection and Competition in Electronic Payments," European Commission, June 28, 2023, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_23_3544.

there are no issuers to begin with.[48] In short, e-money is money or a medium of exchange whose value is stored in either a hardware or a software.

Furthermore, e-money has two categories: centralized or decentralized. "Centralized e-money relies on a central institution – such as Snapper or Octopus – to administer the issuance of the e-money and the facilitation of transactions. Decentralized e-money brings us to the realm of cryptocurrencies."[49]

Under these categories, it is clarified that the MLICT does not cover decentralized forms of e-money transfers. Furthermore, it is also unlikely for the MLICT to be applicable to retail e-money transfers. The applicability of the MLICT to centralized/decentralized and retail/wholesale payments is evidenced when comparing cryptocurrencies and Central Bank Digital Currencies (CBDCs).

3.5.2 Cryptocurrencies

Blockchain-based cross-border transfers are transactions between two parties in different jurisdictions using blockchain technology. Cross-border payments on the blockchain do away with intermediaries, while at the same time have the potential to lower fees and charges and improve the speed and security of payments/transfers. Various categories of cross-border payments are facilitated through stablecoins and cryptocurrencies, as well as via blockchain-based payment for B2B and C2C or P2P transactions.[50]

P2P technology rests on decentralization as network participants transact directly without intermediaries or central servers. Bitcoin is an example of a P2P technology since "no administrator is required to maintain track of user transactions on the network. Instead, the peers in the network cooperate to handle deals and manage Bitcoin. Peers refer to the nodes or computers that perform the same tasks and have the same power within a blockchain network. Blockchain is a P2P network that acts as a decentralized ledger for one or more digital assets, which refers to a decentralized peer-to-peer system where each computer keeps a complete copy of the ledger and verifies its authenticity with

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48 Ben Fung, Miguel Molico, and Gerald Stuber, "Electronic Money and Payments: Recent Developments and Issues" (Bank of Canada, April 28, 2014), 4, https://doi.org/10.34989/sdp-2014-2.

49 Smith and Kumar, "Crypto-Currencies – an Introduction to Not-so-Funny Moneys," 1533.

50 Crypto Council for Innovation, "How Does Blockchain Make Cross-Border Payments Better?," *Crypto Council for Innovation* (blog), July 25, 2023, https://cryptoforinnovation.org/what-are-cross-border-payments-and-how-do-they-work/.

other nodes to guarantee the data is accurate. In contrast, transactions at a bank are kept secret and are only overseen by the bank."[51]

Due to the decentralized nature of such cryptocurrencies, they fall outside of both the scope of applicable entities as well as subject-matter scope of the MLICT. For one, unless they are issued by central banks, they are not money as defined in the MLICT. However, therein lies the inherent dilemma: Cryptocurrencies can only fall within the scope of the MLICT if they are centralized, but cryptocurrencies are inherently decentralized forms of payments. This brings us to a regulatable form of digital payments that are centralized: central bank digital currencies or CBDCs.

3.5.3 Central Bank Digital Currencies

CBDCs are issued for a variety of reasons including (1) payment safety; (2) payment efficiency; (3) financial stability and (4) financial inclusion.[52] However, Sandra Waliczek, working on Blockchain and Digital Assets at the World Economic Forum, explains that there are not a lot of CBDCs currently in use or in production.[53] Nevertheless, in the case of cross-border payments, CBDCs could be used either for payment versus payment (PvP) or delivery versus payment (DvP), either of which could be used for the settling of a transaction. For the final beneficiary, CBDC is a digital representation of central bank reserves.

Meanwhile, for example, fintechs like TransferWise could, in theory, use CBDCs in cross-border payments. TransferWise was given access by the Bank of England to the UK's central bank reserves in 2018. Thus, theoretically, non-bank financial institutions can access CBDC for international funds transfers in the future opening greater disintermediation by banks. This evidences that even though CBDCs are more likely to fall within the scope of the MLICT in comparison to cryptocurrencies, the MLICT must nevertheless be changed to include non-bank entities in order to fully apply to CBDCs.

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51 "What Are Peer-to-Peer (P2P) Blockchain Networks and How Do They Work?," Cointelegraph, accessed November 18, 2023, https://cointelegraph.com/learn/what-are-peer-to-peer-p2p-blockchain-networks-and-how-do-they-work; Smith and Kumar, "Crypto-Currencies – an Introduction to Not-so-Funny Moneys," 1531–59.

52 Ulrich Bindseil, "Central Bank Digital Currency: Financial System Implications and Control," *International Journal of Political Economy* 48, no. 4 (October 2, 2019): 303–35, https://doi.org/10.1080/08911916.2019.1693160.

53 Sandra Waliczek, Interview with Sandra Waliczek by the IHEID TradeLab team, November 22, 2023.

In regard to the wholesale/retail debate, although CBDC arrangements could link retail end-users, "…it is not obvious that the digital certificates required to be identified on the retail wallet could be issued by foreign jurisdictions. Standardization in digital identification would be needed to shape cross-border access both for foreigners as for transactions between different jurisdictions."[54] In summary, it is unlikely to see retail CBDCs in the field of international payments in the next few years. Therefore, at the time of writing, the MLICT could theoretically apply to CBDCs (but only if they are used directly by banks exclusively as per the discussion in the preceding paragraph).

Having said that, CBDC arrangements offer significant promise in alleviating risks and frictions from cross-border and cross-currency financial transactions even as the current form of central monetary authority-issued money remains the anchor of the payment system and the principal settlement asset. For central banks, multi-CBDC arrangements would be more welcome than private sector-issued global stablecoins. Instead of supplanting domestic currencies by inventing a new unit of account, multi-CBDC arrangements just work on "designing national CBDCs with access frameworks and interoperability options to facilitate efficient payments across borders and currencies". Therefore, CBDCs can "contribute to an efficient, resilient, accessible and contestable payment system that seems relatively uncontroversial, without this per se being sufficient to justify CBDC."[55] There are pros and cons for CBDC for cross-border payments. (See Appendix C)

3.5.4 Summary of Findings on Cryptocurrencies and CBDCs

In sum, cryptocurrencies seem to fall squarely outside of the scope of the MLICT due to their decentralized and retail nature. Comparatively, there is a potential to regulate CBDCs under the MLICT ***if*** they are wholesale. In any event, it is worth bearing in mind that CBDCs do not form a major part of the international payments system as of yet.

We would like to conclude our analysis with a quote from Sandra Waliczek: "A lot of the problems with CBDCs [and cryptocurrencies] in cross-border payments are not unique to this new payment system; They concern payment systems in general, [and] CBDCs are just a new development that is sparking this conversation again."

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54 Committee on Payments and Market Infrastructures et al., 9.

55 Bindseil, 308.

To this end, rather than focusing on the inclusion of cryptocurrencies or CBDCs within the scope of a text such as the MLICT, it is arguably more beneficial to focus on persisting issues within the current international payments landscape, which forms the focus of the next Section of this report.

4 Gaps between the MLICT and the international payment system landscape

Technological, financial, and socio-economic developments have influenced both the payment options and user experience of businesses and consumers. As cross-border payment technologies and volumes have changed, regulations have likewise been evolving, albeit not as quickly as the dynamics driving international payment transactions. In the present section, the detailed reasons for how and why the MLICT fails to accommodate these key elements will be fleshed out.

Briefly, topics such as digital payments, new forms of payment types, interoperability, and other issues pertinent to cross-border payments in the 21st century remain unaddressed under the MLICT. In summary, these include:

- Expanding its subject-matter scope to include all payments;
- Expanding its applicability to cover non-bank entities;
- Addressing interoperability;
- Referring to international standards;
- Regulating data transfers and authentication procedures for payments;
- Specifying the timing regulation peculiarities of digital, instantaneous payments;
- Safety and cybersecurity; and
- Consumer protection.

4.1 On Payments Other Than Credit Transfers

As discussed in some detail above, the MLICT does not extend to the many forms of payments in use today, beyond credit transfers. As also discussed, though credit transfers remain a dominant form of international payments, the exclusion of all other types of payments is a significant shortcoming. Not regulating payments such as debit transfers, cheques, and e-money on online platforms means the MLICT essentially means that it fails to cover a significant proportion of the international payments landscape.

As an illustrative example, the MLICT is silent on e-money payments since it concerns the currency in which a transfer is made, and fiat currency should be a domestic matter. But there would be some inconsistencies if the MLICT is applied to e-money payments. For example, Article 2(h) of the MLICT defines the funds or the money subject of the transfer as:

> "'Funds' or 'money' includes credit in an account kept by a bank and includes credit denominated in a monetary unit of account that is established by an intergovernmental institution or by agreement of two or more States, provided that this law shall apply without prejudice to the rules of the intergovernmental institution of the stipulation of the agreement."

Thus, since most jurisdictions—except for the Central African Republic and El Salvador—do not recognize cryptocurrency as money, there might be some uncertainty about whether payment transactions using cryptocurrencies would fall within the ambit of the MLICT.

This further cements the analysis of the preceding Section, concluding that decentralized and some retail e-money payments are not covered by the MLICT.

4.2 On The Exclusion of Non-Bank Entities

As mentioned above, the bank-centric nature of the MLICT results in the exclusion of major participants in the international payments landscape. Even where the MLICT attempts to regulate non-bank entities through Article 1(2) under the category of "other entities", it still functionally limits itself to bank and bank-adjacent entities as it applies only to other entities that function "in the same manner as it applies banks".

As also mentioned above, many of these institutions that exist today do not in fact function 'in the same manner' as banks. For example, consumer-to-business payments especially on online platforms such as Amazon, eBay, or payments pertaining particularly to small businesses and enterprises (see Figure 5).

The concept of "financial inclusion" also refers to the prioritization of SMEs in legislation on international payments, as SME stakeholders are among the most vulnerable in the international payments landscape. This element is not found in the MLICT. It is relevant to be considered as a best practice because it applies to millions of SMEs worldwide. Individual consumers and SMEs are particularly disadvantaged in terms of both fees and access (i.e., financial exclusion). "Low-value payments may incur high fees as a percentage of the amount sent and face cumbersome processes. The unbanked, individuals and firms from fragile States are amongst those who may not be able to access payment services at all."[56]

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56 Financial Stability Board, "Enhancing Cross-Border Payments."

Any new model law addressing payments should make financial inclusion a major policy objective as a key means of reducing poverty and increasing economic growth. Often the introduction to financial services takes the form of transaction accounts, which are "broadly defined as accounts held in banks or other authorized and/or regulated service providers (including non-banks) and can be used to make and receive payments. Transaction accounts include both deposit transaction accounts and e-money accounts."[57] Once introduced to transaction accounts, holders then could use these to access other financial services like savings and means for paying off loans.

"At a global level, the G20 made enhancing cross-border payments a priority during the 2020 Saudi Arabian Presidency, and previously the G20 and the UN agreed on cost targets for international remittances."[58] The international payments system must be made accessible to consumers and SMEs. For these kinds of consumers, cost and accessible technology are important, thus, they are likely to benefit from enhanced competition, as well as enhanced consumer protection.

4.3 On Interoperability

The Bank for International Settlements has defined interoperability as "the technical or legal compatibility that enables a system or mechanism to be used in conjunction with other systems or mechanisms. Interoperability allows participants in different systems to clear and settle payments or financial transactions across systems without participating in multiple systems."[59] Payment system interoperability is relevant both domestically and in case of cross-border transactions. It requires key stakeholder consensus on technical compatibility and the establishment of legal and commercial agreements that form the basis of the exchange of payments across distinct systems.

Interoperability must be encouraged and, perhaps, even mandated, for one, to enhance competition. Both regulatory interoperability in terms of compatible laws on payments across borders, as well as technical interoperability among

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57 Massimo Cirasino, "Payments as a Gateway for Financial Inclusion," in *Payments and Market Infrastructure Two Decades after the Start of the European Central Bank.*, by European Central Bank (LU: Publications Office, 2021), 335, https://data.europa.eu/doi/10.2866/229028.

58 Bank for International Settlements, "Enhancing Cross-Border Payments: Building Blocks of a Global Roadmap," 33.

59 Committee on Payments and Market Infrastructures, "Interoperability," in *Glossary of Payments and Market Infrastructure Terminology*, June 16, 2015, https://www.bis.org/cpmi/publ/d00b.htm.

domestic payment systems (digital and physical) are key to regulating international payments. It will not be easy, however, since interoperability involves aspects like operating hours, access criteria, clearing and settlement procedures, and messaging standards, among other things.

Banks mainly rely on the interbank clearing system or bilateral netting agreements to finish payment on what one bank owed to another. The MLICT acknowledges the validity of payment made through those systems and agreements but does not consider how the non-bank entities access those isolated systems. They must hold an account within the receiving bank for them to debit.[60] For the purpose of treating non-bank entities and banks equally, it must emphasize more in the interoperability between their internal systems.

With new technologies and standardization, technical interoperability could become easier. This, then, allows interlinking arrangements that enable banks and other payment service providers (PSPs) to conduct business with each other without requiring all parties to use the same payment system or correspondent banks. In turn, transaction chains could be shorter, costs can be lower, transparency can be greater, and speed of payment can be faster.[61]

Although a significant amount of work in standard setting has been done by the FSB and the CPMI, their memberships are limited. With the UNCITRAL working on legal interoperability and standards on cross-border payments and remittances, this increases the likelihood of greater interoperability. This, in turn, could translate to a faster lowering of transaction costs and increasing efficiency.

4.4 On International Standards, Principles, Guidelines

As elaborated on at the end of Section 3, explicitly setting out the global standards that apply to international payments is key for enabling interoperability worldwide. Nevertheless, to achieve true global interoperability of payment systems, regional standard-setting is not enough. Though the CPMI and FSB standards exist and apply to their parties, the incorporation of said principles by a UNCITRAL Model Law would help promote the true globalization of these principles for all UN Member States.

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60 *See* Model Law on International Credit Transfers arts 6(a)-(b) (UNCITRAL, 1992).

61 Committee on Payments and Market Infrastructures, "Interlinking Payment Systems and the Role of Application Programming Interfaces: A Framework for Cross-Border Payments," *Report to the G20*, July 8, 2022, https://www.bis.org/cpmi/publ/d205.htm.

Though the aforementioned standards exist, they are not referenced and hence there is no textual or other legal basis to conclude they are within the scope of the MLICT. Having an international model law on international payments directly refer to these standards would give them the necessary legal power.

4.5 On Trust in Data Transfers and Authentication Procedures

The optimal goal is for the cross-border payment processes to result in payments that are "immediate, cheap, universal, and settled in a secure settlement medium."[62] These aspirations need to be embodied in "concrete targets in terms of speed, costs, transparency and inclusiveness [even as such] are yet to be developed and endorsed."[63]

There is a "trust" gap in the MLICT, specifically in relation to promoting a robust system of data transfer across borders in order to harmonize digital payments systems (including their authentication procedures). The MLICT does refer to 'commercially responsible' methods that banks should use in authentication procedures for cross-border payments. But the MLICT provides no explicit or even indirect textual basis mandating the application of such "trust" elements. Leaving such a large margin of appreciation prevents countries without developed digital payment regulations from incorporating a well-developed authentication procedure. It is worth noting that a mere comparison of signatures is not deemed as a commercially reasonable method,[64] which leads to the question whether electronic signature suffices as a commercially reasonable method.

The financial system rests on its participants trusting the integrity of the institutions and processes. Thus, best practices demand greater transparency to enhance the credibility and stability of the payment system.

4.6 On the Speed of Payment Transactions

Best practices for payment systems demand that transactions be conducted with all due speed. Credit, settlement, and liquidity risks are lowered when transactions can be done in a prompt manner. Consequently, the safety,

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62 Ulrich Bindseil and George Pantelopoulos, "Towards the Holy Grail of Cross-Border Payments," *ECB Working Paper Series* No 2693 (August 2022), https://data.europa.eu/doi/10.2866/333725.

63 Bank for International Settlements, "Enhancing Cross-Border Payments: Building Blocks of a Global Roadmap," 33.

64 Model Law on International Credit Transfers art. 5(2) (UNCITRAL, 1992).

credibility, and stability of the payment system and the financial system in general are enhanced. Initiative from international institutions and standard-setting bodies will likely be the primary movers in incentivizing participating service providers to improve their speed because poor economies and jurisdictions are the ones which are likely to experience longer processing times.[65] The speed of transaction could be improved with jurisdictions agreeing to a common standard with respect to the settlement window.

The best practice with respect to increasing the speed of cross-border payments is articulated by the CPMI which proposes (a) increasing the operating hours of RTGS across jurisdictions; and (b) agreeing on a "global settlement window" or a common schedule when RTGS in most jurisdictions would be operating. The survey of 82 jurisdictions shows that 62 RTGS systems globally have evaluated three options for longer operating hours: (i) longer operating hours on current operating days so there will be overlap with the operating hours of other jurisdictions; (ii) operating on additional days to close the gaps during holidays; and (iii) operating 24 hours, 7 days a week.[66]

By contrast, there is a "timing" gap in the MLICT. In the MLICT, banking day is an important concept to calculate the time limit, which is literally unsuitable for non-bank entities. The MLICT deals with bank-to-bank credit transfers settled over a specific period of time. The lack of referral to the regulation of aforementioned instantaneous digital payments methods is understandable owing to the year in which the MLICT was drafted. However, moving forward, the general timing provisions found in the MLICT will not be able to govern international payments – especially cross-border digital payments.

4.7 On Consumer Protection

With the rise in e-commerce over the last three decades, international payment flows changed from mainly B2B to include B2C (e.g., Amazon) and even consumer-to-consumer (C2C, e.g., eBay). As such, consumer protection must be explicitly accommodated in a model law on international payments. For instance, consumers and MSMEs need standards on consumer protection since they are not going to be as sophisticated as businesses.

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65 Nilsson et al., 4.

66 Committee on Payments and Market Infrastructures, "Extending and Aligning Payment System Operating Hours for Cross-Border Payments," May 12, 2022, https://www.bis.org/cpmi/publ/d203.pdf.

On the other hand, Geva (2013) assesses the fitness of the MLICT in addressing the intricacies of international remittance transfers initiated and/or completed through mobile devices. The paper recommends that addressing concerns pertaining to consumer protection would be useful.[67]

It is normal for the MLICT to make no reference to consumer protection as it falls out of the mandate of UNCITRAL. Section 2 did not address consumer protection as the MLICT simply states "This law does not deal with issues related to the protection of consumers."[68] However, as best practices from contemporary international legal instruments on international payments show, consumer protection should be referenced in the text of a model law on international payments if its scope is extended to apply to consumers alongside banks. The detailed content analysis of such modern international legal instruments can be found in the next Section.

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67 Benjamin Geva, "The Wireless Wire Do M-Payments and UNCITRAL Model Law on International Credit Transfers Match, Raw?," *Banking & Finance Law Review* 27, no. 2 (2013): 249–64, https://papers.ssrn.com/abstract=2440844.

68 Model Law on International Credit Transfers art. Y (footnote to Article 1) (UNCITRAL, 1992)

5 Case studies – Exemplary International Legal Instruments and Regulations to Address the Gaps in the MLICT

The aforementioned gaps in the MLICT have arguably left States to 'fend for themselves' in harmonizing international payments landscapes. Reflexively, countries have taken unilateral or regional action through implementing various trade or digital economy agreements and roadmaps to regulate international payments—especially in the field of digital payments—within their own borders or political blocks. To this end, analysing the salient features and trends in other international legal instruments and regulations on international payments as case-studies may help guide the path to reform the MLICT, or potentially drafting a new model law to govern international payments.

5.1 Expanding Scope to Include New Payment Systems

As demonstrated in Sections 2–4 above, the term "international credit transfers" found in the MLICT no longer covers a significant portion of contemporary international payments. Current international legal instruments on international payments adopt a far wider scope to account for all types of cross-border payments.

For example, the Digital Economy and Partnership Agreement (DEPA) 2020 among Chile, New Zealand, and Singapore encompasses far more than just international credit transfers.[69] Article 2.7 defines the regulation of DEPA on electronic payments. In contrast to the MLICT, Article 2.7.1 of DEPA does not limit the Agreement's scope of applicability to only bank-to-bank international payments ("new payment service providers"). Article 1.1.2(b) of DEPA explicitly states that it applies to all electronic payments, hence evidencing the Agreement's relation to the governance of financial services.

DEPA also goes well-beyond the MLICT by regulating international payments in the form of electronic payments. Article 2.1 defines electronic payments as "*the payer's transfer of a monetary claim on a person that is acceptable to the payee and made through electronic means*". Right from the definition of e-payments, DEPA differs from the MLICT in providing a broader definition of international payments in order to account for the fluctuations in the funds transfer chain for the timing issues that can potentially be caused by digital payments.

[69] The Digital Economy Partnership Agreement, Jun. 12, 2020.

Alongside DEPA, the UNCITRAL Model Law on E-commerce of 1996 (MLEC) is more widely ratified and governs issues that are pertinent in international trade (including international payments and data transfers in digital commerce. The MLEC has been adopted by 83 states, covering a total of 163 jurisdictions,[70] compared to the MLICT which has only been adopted by the EU. Notably, the EU itself has subsequently introduced a new Directive to regulate international payments.[71]

DEPA makes explicit reference to the MLEC as a legal framework governing international transactions (Article 2.3.1[a]). To this end, analyzing some of its provisions provides insight as to how it was comparatively more widely ratified than the MLICT and why.

In comparison to the MLICT, the explanatory note of the MLEC by UNCITRAL states that the text was left intentionally broad to make sure "that application of the Model Law be made as wide as possible."[72] What the MLEC does differently is to attempt to capture future developments in e-commerce and electronic data interchanges through (1) refraining from providing a narrow scope of application for its provisions, and (2) acknowledging that the interpretation of this text may be subject to future technological developments. This is in stark contrast to the MLICT, which limits itself to the scope of bank-to-bank international *credit* transfers. In this regard, the MLEC is similar to DEPA in its approach to regulation of e-commerce in digital landscape that is constantly evolving. The acknowledgement in the MLEC to accommodate upcoming technological advancements that may result in gaps in the Model Law leaves more room for its wider application.

In sum, a best practice in reforming the MLICT or drafting a new legal text on international payments would be to including a clause acknowledging how rapid developments in technology can be accounted for by agreed disciplines.

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70 *See* "Status: UNCITRAL Model Law on Electronic Commerce (1996) | United Nations Commission On International Trade Law," accessed November 18, 2023, https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce/status.

71 *See* Directive 2015/2366 of the European Parliament and of the Council of 25 November 2015 on Payment Services in the Internal Market, 2015 O.J. (L 337) 35.

72 United Nations Commission on International Trade Law, UNCITRAL Model Law on Electronic Commerce with Guide to Enactment 1996 with Additional Article 5 Bis as Adopted in 1998, at 25, U.N Sales No. E.99.V.4 (1999).

5.2 Prioritizing Interoperability

Interoperability of digital payment systems across state borders is crucial in unifying laws related to cross-border payments. As aforementioned in Section 4, interoperability refers to the smooth transaction of funds between payments systems in cross-border payments. Global interoperability includes both technical and regulatory interoperability.[73] In terms of technical interoperability, payment systems must be interconnected and facilitate the smooth transaction of funds across systems, regardless of state borders. In terms of regulatory interoperability, payment systems must be governed under parallel laws in regulatory frameworks across jurisdictions.[74]

Regional and bilateral agreements such as the G20 Roadmap for Enhancing Cross-border Payments (2020-2027) and the Bander Seri Begawan Roadmap of the Association of Southeast Asian Nations (ASEAN) address interoperability within their scope (as it is applied to international payments).[75] For instance, the use of real-time payment systems, such as the Fast Payment System, has become a standard practice, enabling nearly instantaneous fund transfers between entities.[76] Endorsing interoperability as a fundamental aim would prioritize a similar practice for any state wishing to adopt a model law on international payments.

An ideal practice of coordination to facilitate international payments is found in the collaboration between the Monetary Authority of Singapore and the Bank of Thailand. These two countries connected their respective real-time retail payment systems, PayNow and PromptPay, marking a ground-breaking achievement on a global scale. Apart from the central banks and monetary authorities, the other stakeholders involved in this collaboration are the payment system operators, bankers' associations, and participating banks of both countries. The PayNow-PromptPay linkage is a significant milestone within the framework of ASEAN

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73 World Economic Forum, “Unlocking Interoperability: Overcoming Regulatory Frictions in Cross-Border Payments,” September 21, 2023, https://www3.weforum.org/docs/WEF_Unlocking_Interoperability_2023.pdf.

74 Financial Stability Board, “G20 Roadmap for Enhancing Cross-Border Payments: Priority Actions for Achieving the G20 Targets,” 2.

75 Financial Stability Board, “G20 Roadmap for Enhancing Cross-Border Payments: Priority Actions for Achieving the G20 Targets.”

76 World Bank Group, “Interoperability in Fast Payment Systems,” Part of the World Bank Fast Payments Toolkit, September 2021, 3, https://fastpayments.worldbank.org/sites/default/files/2021-10/Interoperability_in_FPS_Final.pdf.

Payment Connectivity, launched in 2019.[77] Such initiatives are highly likely to be adopted by other States given the growing focus on payments systems interoperability.

Interoperability within payment systems therefore becomes a necessary best practice for future adoption and future disciplines. It facilitates faster, more cost-effective, inclusive, and transparent cross-border payment solutions as electronic payment volumes surge with greater domestic and international participation.[78] The current MLICT, however, falls short in addressing interoperability concerns, which are important in understanding the functioning of new payment systems to ensure the seamless, secure, and inclusive flow of funds across borders.

5.3 International Standards, Principles, and Guidelines for Cross-Border Payments

The need to adopt international standards and principles for cross-border payments is also recognized in the recent regional trade agreements. For instance, under Article 2.7.2(b) of DEPA, the goal to make international payments adhere to internationally accepted payment standards to "enable greater interoperability between payment systems" is set out.

In addition to DEPA, the ISO 20022 standard is widely recognized as the de facto framework for global interoperability, echoing its importance in the regional frameworks mentioned above. Article 11 (d) of the Australia-Singapore Digital Economy Agreement 2020 (DEA) highlights that the parties shall "adopt, for relevant electronic payment systems, international standards for electronic payment messaging, such as the International Organization for Standardization *Standard ISO 20022 Universal Financial Industry Message Scheme*, for electronic data exchange between financial institutions and services suppliers to enable greater interoperability between electronic payment systems".

Furthermore, within the framework of the ASEAN Digital Integration Framework Action Plan 2019-2025, one of its six priority areas centres on facilitating seamless digital payments. The objective is to "to promote the use of safe, efficient and affordable e-payment and payments innovation to support regional

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77 "Singapore and Thailand Launch World's First Linkage of Real-Time Payment Systems," Monetary Authority of Singapore, April 29, 2021, https://www.mas.gov.sg/news/media-releases/2021/singapore-and-thailand-launch-worlds-first-linkage-of-real-time-payment-systems.

78 "Singapore and Thailand Launch World's First Linkage of Real-Time Payment Systems."

payments integration"[79]. The key outcomes outlined under this priority are the development of guidelines for electronic payment solutions that encompass security requirements and privacy principles, along with the formulation of a work plan to foster interoperability between real-time retail payment systems through the adoption of international standards such as ISO 20022. [80]

The absence of such provisions in the MLICT can give rise to operational, regulatory, and economic challenges in the interconnected world of digital payments. Therefore, efforts to update and harmonize international standards in this domain are vital to facilitate global financial interactions.

5.4 Promoting Trust: Data Transfers in Authentication Procedures for Digital Payments

To account for developments in digital trade, and the resulting issues in accountability and cross-border authentication, any new model law on international payments will have to address the issue of data transfers as they relate to international payments. Data transfers are inextricably part of international payments in the age of digital payments. For example, Article 4 of DEPA provides regulations for the transfer of personal data for payers or payees in cross-border digital payments. Consequently, any model law seeking to govern international payments must also address the harmonization of data transfers among signatory states.

For example, enabling cross-border authentication to connect the payer/payee data with the payment are accounted for in Article 2.7.2(d) of DEPA. In this regard, DEPA proposes a connection between personal data of the individual or business with making an international payment. The interconnection between data transfers, and the ensuing trust required between states to make the governance of international electronic payments as efficient as possible is a salient feature of DEPA.

Considered in tandem with the assessment of DEPA, the MLEC can also serve as an example for how to incorporate definitions on digital data transfers (referred to as "electronic data interchanges")[81] which have become relevant for international digital payments.

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79 ASEAN Economic Ministers, ASEAN Digital Integration Framework Action Plan 2019-2025, at 16 (Sep. 2019)

80 ASEAN Economic Ministers, ASEAN Digital Integration Framework Action Plan 2019-2025, at 17 (Sep. 2019)

81 *See* Model Law on E-Commerce, art 2 (UNCITRAL, 1996)

Finally, like other trade agreements in the digital age, the free flow of data and information is also addressed by the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) 2018. However, financial institutions are excluded from the definition of covered person under Article 14.1. This less-than-best practice means that parties are not obliged to permit free flow of information for domestic and international payments and thus have more space to design their own regulation.

5.5 Resolving Timing and Processing Issues

As discussed above, the MLICT fails to adequately address issues concerning the speed of cross-border digital transactions and authentication-related challenges. The existing Article 12 on Revocation in the MLICT, outlining rules for amending or revoking a payment order, does not offer a practical solution for the swift pace of various cross-border electronic transactions[82]. A far better practice is to adopt disciplines incorporating provisions related to the revocability of payment orders. A good example is the approach in the EU (revised) Payment Services Directive (PSD2). PSD2 grants consumers the right to revoke a payment order within a specified period in certain circumstances, and at the same time emphasizes the irrevocability of payment orders by introducing strong customer authentication (SCA) to ensure security. The directive focuses on transparency and consumer protection, mandating clear information from payment service providers on revocation conditions, timeframes, and associated charges.

Another crucial aspect to fill the gaps in the MLICT is to address authentication procedures, as the current framework lacks specificity. The MLICT here again could draw inspiration from PSD2's Strong Customer Authentication (SCA) requirements. These changes are pivotal for MLICT reform, aligning it with modern authentication standards and framing guidelines on security in cross-border digital transactions.

5.6 Safety and Cybersecurity for Digital Payments

Though a cybersecurity clause may not seem directly relevant to a Model Law on international payments, agreements such as DEPA cover international payments under their cybersecurity schemes. For example, Article 5 of DEPA acknowledges the importance of cybersecurity for a digital economy – including international payments landscapes – for promoting a "wider trust environment".

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82 Luca Castellani, "The Role of UNCITRAL Texts in Promoting a Harmonized Legal Framework for Cross-Border Mobile Payments," *Washington Journal of Law, Technology & Arts* 8, no. 3 (January 1, 2013): 273, https://digitalcommons.law.uw.edu/wjlta/vol8/iss3/6/.

Harkening back to the issue surrounding harbouring trust for data transfers, including cybersecurity and safety clauses will be fundamental to adequately addressing cross-border digital payments in particular.

Safety and cybersecurity obligations for digital payments can also be found in the EU PSD2. The transparency requirement in the PSD2 is mainly designed for consumer protection; the parties may agree not to apply in whole or in part when the payment service user is not a consumer (*paragraphs [5] – [8]*). Notably, the burden of proof is always on the payment service provider's side.

5.7 Financial Inclusion of Small and Medium-sized Enterprises (SMEs)

As discussed previously, it is essential for payment systems to recognize and remedy the significant impact on SMEs in the (dis)harmonization of cross-border digital payment systems. The MLICT does not accurately capture SMEs within its scope.

The inclusion and prioritization of SMEs in the digital payments landscape is addressed in DEPA.[83] A best practice in this regard is found in Article 10.2 which specifically calls for cooperation to enhance opportunities for SMEs in the digital economy.

The COMESA Business Council's report also recognizes the importance of harmonizing legal and regulatory frameworks for common standards in achieving a fully integrated payment system.[84] The recommended guiding principles for the policy on digital retail payments within COMESA further highlight the need for a real-time settlement, irrevocability of payments to build trust in cross-border payments, robust verification procedures through electronic Know-Your-Customer frameworks, and open interoperability involving both banks and non-banking Digital Financial Services Providers. Additionally, the proposed equivalence of transactions between cross-border and domestic payments, supported by a value-agnostic and universally applicable framework, is also mentioned.[85]

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83 *See* The Digital Economy Partnership Agreement, art.10, Jun. 12, 2020.

84 COMESA Business Council, "The Business Case for a Regional Digital Payments Policy for Micro, Small and Medium Enterprises (MSMEs) in COMESA-A Digital Financial Inclusion Plan for MSMEs," CBC Sector Report, June 2021, https://comesabusinesscouncil.org/wp-content/uploads/2022/02/Business-Case-for-a-Regional-Digital-Payments-Policy-for-MSMEs-in-COMESA-Executive-Summary-.-ext.pdf.

85 COMESA Business Council, "The Model Policy Framework on Digital Retail Payments for Micro, Small and Medium-Sized Enterprises in COMESA: Towards Digital Financial Inclusion

To realize these objectives, it is imperative to develop a harmonized regulatory framework through the revised or replacement Model Law. This would not only lay the foundation for an integrated digital payments framework but also enhance greater digital financial inclusion for SMEs. Considering SMEs will benefit from the harmonization of cross-border digital payments systems, including SMEs in a new Model Law where it is explicitly stated that international digital payment standards apply when SMEs are involved (not just B2B) will enhance the overall applicability of a new Model Law.

5.8 Foresight for Upcoming Changes in Digital Payments Landscapes

The rapid and often unforeseeable developments in cross-border digital payments systems creates a risk that payment disciplines could become outdated – like the MLICT. A best practice would be for a future model law to acknowledge these dynamic elements and the need to draft disciplines that are flexible enough to account for changes in payment systems. Article 2.7.1 of DEPA offers guidance by noting "the rapid growth of electronic payments, in particular, those provided by new payment service providers" before going on to oblige its signatories to "support the development of efficient, safe and secure cross border electronic payments by fostering the adoption and use of internationally accepted standards, promoting interoperability and the interlinking of payment infrastructures, and encouraging useful innovation and competition in the payments ecosystem". In order to increase regulatory foresight, incorporating a 'catch-all' clause to a new Model Law on international payments will ensure no new development will get around its regulatory framework.

The issue on governing CBDCs is an example of lack of foresight for changing digital payments landscapes and how they can create fissures in the international regulation of cross-border payments. As mentioned above, though CBDC's are more readily incorporated into domestic and international regulatory frameworks, it is more difficult to address cryptocurrencies in a similar fashion. Had the MLICT included such potential developments with a 'catch-all' clause, such as Article 2.7.1 of DEPA, the regulation of newer developments such as CBDCs, and stablecoins and cryptocurrencies could have fallen within the scope of the MLICT. The lesson learned is to include a 'foresight' or 'catch-all' clause considering and encompassing digital innovation.

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for MSMEs in the Region," 2022, https://comesabusinesscouncil.org/wp-content/uploads/2022/10/Model-Policy-Framework-On-Digital-Retail-Payments_2-1.pdf.

5.9 Reference to the General Agreement on Trade in Services (GATS)

Cross-border payments are no longer stand-alone instruments and fall within the scope of trade in services. An applicable Model Law on international payments must make reference to the General Agreement on Trade in Services (GATS).[86]

Crucially, DEPA recognizes the interlinkages between other international trade instruments and digital trade. Article 1(2) explicitly states that the parties' intention to cooperate coexists "with their existing international agreements". Though this might seem like inferable information at first glance, it is nevertheless a fundamental article to exist in a modern legal instrument seeking to govern international payments. The referral to WTO agreements in Article 1.2.1(a) lays out the direct role of the GATS to govern international payments as a form of trade in services. The regulation of international payments does not currently operate in a vacuum, and a new legislative text on international payments will have to make explicit referral to relevant WTO legislation (the GATS in particular) to be viable.

5.10 Addressing Consumer Protection

While the MLICT states that domestic consumer protection laws supersede the Model Law, it lacks reference to addressing consumer protection issues even though the scope of the law includes payments to consumers.[87] This could pose potential challenges. The existing Model Law primarily concentrates on establishing a legal framework for credit transfers between banks, overlooking explicit consideration of consumer protection issues. To address this gap, reform efforts could draw inspiration from initiatives such as the DEA, DEPA and PSD2. Ensuring alignment with consumer protection principles and objectives may involve integrating provisions related to data protection, privacy, and effective dispute resolution mechanisms, particularly given their growing significance in the digital cross-border payments landscape. The reformed law should maintain a technology-neutral stance, making it future-proof and adaptable to emerging innovations.

Furthermore, a consumer protection provision should be attuned to regional variations and specificities, tailoring its framework to accommodate legal differences among participating countries on this matter. In support of this

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86 General Agreement on Trade in Services, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 1869 U.N.T.S. 183, 33 I.L.M. 1167 (1994).

87 *See* Castellani, "The Role of UNCITRAL Texts in Promoting a Harmonized Legal Framework for Cross-Border Mobile Payments," 273.

approach, DEA Article 15(4) emphasizes the importance of cooperation between consumer protection agencies or relevant bodies of the parties involved in cross-border electronic commerce to enhance consumer welfare. Consumer protection is also a main concern of the EU PSD2. To this end, on one hand, it imposes strict and comprehensive regulations on payment service providers, and compared with the MLICT, has more detailed rules for their obligations and responsibilities; on the other hand, it particularly stresses the transparency of conditions and information requirements for payment services.

A new Model Law on international payments may not directly address the content of consumer protection when it comes to issues that may arise out of digital cross-border payments as it falls outside the mandate of UNCITRAL. However, the issue of consumer protection can be addressed by way of referring to the relevant, more detailed legal instruments such as PSD2.

6 Recommendations and Conclusion

6.1 Matrix of Recommendations

Following the case-studies on multiple contemporary international and domestic legal instruments that seek to govern international payments as they have developed in the 21st century, Section 6 will provide a "Matrix of Recommendations" for laying the groundwork for reformulating the MLICT, or potentially drafting new model law in this field. These recommendations, based on the gaps found in Sections 2–5, are provided in the following table:

Table 1. Matrix of recommendations

1992 Model Law	Proposed amendments	Rationale for proposal
Scope and Sphere of Application: Title and sphere of application of the MLICT is limited to international credit transfers.	It should not be limited to international CREDIT transfers, but rather made more generally applicable to cross-border payments or transfers.	The distinction between credit transfer and debit transfer is a bit outdated today and cannot fit other new types of payments. The rights and obligations between banks, non-bank entities and other key financial players in the system are the main concern and should not be affected by who initiates the transfer. Thus, it may be best to refer to it simply as international payments or international transfers.
Interoperability: Reference to interoperability between payment systems and adherence to international standards in this regard is not covered in the MLICT.	Introduction of an article on interoperability to facilitate a more efficient and inclusive cross-border payments system.	Interoperability, and more specifically adherence to internationally set standards for the regulation of international payments, has become a fundamental aspect of texts governing digital trade at large. Article 2.7.1 of DEPA makes direct reference to parties' obligation to foster "internationally accepted standards" and "promoting interoperability" of payment infrastructures. Similarly, in the case of DEA, as mentioned above, article 11 (d) refers to the adoption of

1992 Model Law	Proposed amendments	Rationale for proposal
		international standards for electronic payment systems, such as the widely recognized ISO 20022 by the Parties to the agreement for their relevant payment systems.
'Good Faith' in Data Transfers for Digital Payments: Data transfers, including the personal information of parties to an international payment, are not governed under the MLICT.	An explicit statement must be made for cooperation among signatories to harmonize data transfer rules, highlighting the importance of personal information in digital international payments.	For instance, DEPA continuously obliges signatory states to harmonize data transfers as it pertains to international payments (Article 2.7), highlighting the fundamental need to regulate "Data Issues" in digital international payments (Article 4.3).
Authentication Procedures for Digital Payments: Electronic authentication and its procedures are not adequately addressed under Articles 5(2) and 5(4) of the MLICT.	The explanatory note to the MLICT makes a point that determining what is "commercially reasonable" in terms of authentication procedures varies over time and place as well as according to the current technologies. However, there is no further resolution to the issue considering the changing pace of technology today.	Other legal instruments, such as DEPA, refer to authentication procedures required for the confirmation of personal information when making international payments (Article 2.7.2(d)). The inclusion of principles promoting harmonization of authorization procedures, like permitting the exchange of personal data in international payments, is necessary for digital payments.
Timing Issues: The MLICT deals with bank-to-bank credit transfers settled over a specific period of time.	Today, Real Time Payment Systems and Fast Payment Systems have changed the way funds can be transferred internationally, increasing the speed and efficiency.	For example, the linkage between the Monetary Authority of Singapore (MAS) and the Bank of Thailand (BOT) to connect their respective real-time retail payment systems, PayNow and PromptPay, enabling faster cross-border transfers. DEPA also refers in its Preamble to the fact that the rapidly changing digital landscape must be accounted for when applying

1992 Model Law	Proposed amendments	Rationale for proposal
		any regulation to international digital payments.
Financial Inclusion: Article 1(2) of the MLICT used "other entities" as a catch-all phrase for all entities taking part in international credit transfers.	In similar language to the DEPA 2020, incorporate into the text of the model law the applicability of its norms to all entities (bank and non-bank) taking part in international payments.	DEPA Article 2.7.1 explicitly recognizes the rapid developments in international payments which may subject non-bank entities to direct accountability under the Agreement. This provides an acknowledgement that non-bank entities exercising bank-like functions are in practice subject to the regulations under the Agreement. More importantly, it serves as a 'catch-all' phrase for capturing any future developments that may lead to innovations for newer entities taking part in international payments.
Reference to GATS: Having been drafted before the inception of the WTO Agreements, the MLICT does not refer to other WTO instruments governing international payments.	Reference should be made to relevant international trade law instruments governing the same subject matter, specifically the General Agreement on Trade in Services (GATS).	International payments do not exist in a vacuum and are subject to the norms governing trade in services. As an example, DEPA makes explicit referral to WTO Agreements to recognize the signatory states' prior commitment to their obligations under GATS.
Consumer Protection: Lack of clauses referencing consumer protection laws at the domestic level leaves the MLICT unequipped to address the issue.	Explicit provisions that promote greater emphasis on consumer protection, speed of transactions, competition, transparency, and financial inclusion	With the greater participation of consumers and SMEs which are less sophisticated than business, consumer protection needs to be strengthened. Meanwhile, speed of transactions lessens credit, liquidity, and settlement risks. Speed and transparency enhance the integrity of the payment system and promote financial stability.

1992 Model Law	Proposed amendments	Rationale for proposal
		Finally, financial inclusion promotes economic development.

6.2 Conclusion

The MLICT was a valuable attempt at harmonizing regulations in the field of international payments for ease of commerce and trade. However, the fast pace of developments in digital payments have severely undermined the MLICT's viability in 2023. We adopt and ascribe to the conclusion that a new uniform UNCITRAL Model Law on international payments, "could help in overcoming national differences and would be particularly useful in addressing legal challenges arising from cross-border transactions. In particular, it could address a matter that was left open by the MLICT, i.e., the possibility of having a unique legal regime applicable to cross-border payments."[88]

A crucial outcome of our analysis is that the MLICT is unequipped to accurately or effectively capture the regulation of international payments due to the developments in digital payments in the 21st century. Further issues arise out of the exclusion of non-bank entities from the MLICT, and the lack of sufficient adoption of the Model Law in the domestic legislations by UNCITRAL member countries. As discussed, issues relating to scope of application of the Model Law, interoperability, international standard-setting, data transfers, timing issues, cybersecurity, financial inclusion, foresight for digital innovation, reference to the international law on trade in services, and consumer protection persist to prevent the MLICT from being equipped to address the current landscape for international payments.

Additionally, our analysis shows that Singapore is a key country of interest which has already undertaken crucial regulatory and legal actions in the field of

[88] *See* Castellani, "The Role of UNCITRAL Texts in Promoting a Harmonized Legal Framework for Cross-Border Mobile Payments," 267.

international payments on multiple fronts – both domestically and with its strategic economic partners. DEA 2020 and DEPA 2020 were both fundamental in the research of and recommendations in this Report. Consequently, focusing on Singaporean legal instruments would provide guidance proven to be effective for drafting a new international model law on international payments.

In sum, this report has mapped out the provisions of the MLICT, explained developments in international payments since its adoption, established the MLICT's shortcomings in keeping up with said developments, and made recommendations to update features of the MLICT as inspired by case studies on other international legal instruments.

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Appendix A. Key Standards for Financial System Stability[89]

- **Macroeconomic Policy and Data Transparency**
  1. Fiscal Transparency Code (2017)
  2. Enhanced General Data Dissemination System (e-GDDS) (2015)
  3. Code of Good Practices on Transparency in Monetary and Financial Policies (MFP) (2000)
  4. Special Data Dissemination Standard (SDDS) (1996)

- **Financial Regulation and Supervision**
  5. Insurance Core Principles, Standards, Guidance and Assessment Methodology (2019)
  6. Objectives and Principles of Securities Regulation (2017)
  7. Core Principles for Islamic Finance Regulation (Banking Segment) (2015)
  8. Core Principles for Effective Banking Supervision (2012)

- **Institutional and Market Infrastructure**
  9. International Standards on Auditing (ISA) (2015)
  10. G20/OECD Principles of Corporate Governance (2023)
  11. IADI Core Principles for Effective Deposit Insurance Systems (2014)
  12. Key Attributes of Effective Resolution Regimes for Financial Institutions (2014)
  13. Principles for Financial Market Infrastructures (2012)
  14. FATF Recommendations on Combating Money Laundering and the Financing of Terrorism & Proliferation (2012)
  15. Insolvency and Creditor Rights Standard (2011)
  16. International Financial Reporting Standards (IFRS Standards) (2002)

[89] Financial Stability Board, “Key Standards for Sound Financial Systems.”

Appendix B. Principles for Financial Market Infrastructures Applicable to Payment Systems[90]

General organisation
Principle 1: Legal basis
Principle 2: Governance
Principle 3: Framework for the comprehensive management of risks

Credit and liquidity risk management
Principle 4: Credit risk
Principle 5: Collateral
[…]
Principle 7: Liquidity risk

Settlement
Principle 8: Settlement finality
Principle 9: Money settlements
[…]

Central securities depositories and exchange-of-value settlement systems
[…]
Principle 12: Exchange-of-value settlement systems

Default management
Principle 13: Participant-default rules and procedures
[…]

General business and operational risk management
Principle 15: General business risk
Principle 16: Custody and investment risks
Principle 17: Operational risk

Access
Principle 18: Access and participation requirements
Principle 19: Tiered participation arrangements
[…]

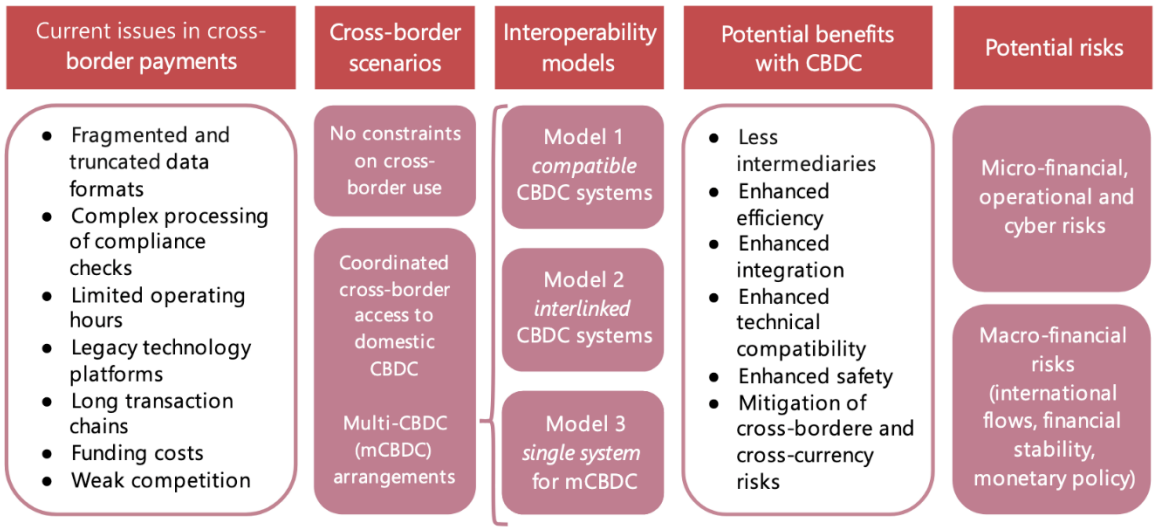
Efficiency
Principle 21: Efficiency and effectiveness
Principle 22: Communication procedures and standards

Transparency
Principle 23: Disclosure of rules, key procedures, and market data

[90] Committee on Payments and Market Infrastructures, "Principles for Financial Market Infrastructures," 2012, https://www.bis.org/cpmi/info_pfmi.htm.

Appendix C. Central Bank Digital Currencies

Figure C-1. Pros and cons of CBDCs for cross border payments



Source: CPMI; BIS Innovation Hub; IMF; World Bank. [91]

More specifically, Table 3 enumerates the potential improvements of different multi-CBDC (mCBDC) arrangements vis-a-vis identified frictions in cross-border payments.

Table C-1. mCBDC models versus frictions due to correspondent bank arrangements

	Potential improvements		
Cross border payments frictions	**Model 1: mCBDC arrangement based on compatible CBDC systems**	**Model 2: mCBDC arrangement based on interlinked CBDC systems**	**Model 3: single mCBDC multi-currency system**
Legacy technology platforms	Compatible systems allow for efficiency gains in existing banking relations	A common clearing mechanism could reduce the number of relationships and provide economies of scale	A single system does not require relations (however, a single system may add to operational costs)
Limited operating hours	CBDCs can be open 24/7, eliminating any mismatch of operating hours		

[91] Committee on Payments and Market Infrastructures et al., "Central Bank Digital Currencies for Cross-Border Payments," Report to the G20 (July 9, 2021), 4, https://www.bis.org/publ/othp38.htm.

	Potential improvements		
Cross border payments frictions	**Model 1: mCBDC arrangement based on compatible CBDC systems**	**Model 2: mCBDC arrangement based on interlinked CBDC systems**	**Model 3: single mCBDC multi-currency system**
Fragmented and truncated data formats	Compatible message standards allow payments to flow without data loss or manual intervention	The message standard (e.g., ISO 200022) adopted by the interlinkage would act to harmonize standards across systems	Single message standard across the system eliminates mismatches
Unclear FX rates and unclear incoming fees	Compatibility requirements for wallet providers could enable users to calculate fees and rates prior to a payment	Common calculation of rates and fees for transfers using any interlinkage would aid transparency	A single system would likely be designed to include options for FX conversion
Long transaction chains	CBDCs could settle instantly, reducing the need for status updates		
Complex processing of compliance checks	Compatible compliance regimes reduce uncertainty and costs	Interlinking systems do not impact multiple or conflicting compliance requirements	Single set of access requirements means compliance could be equivalent across the system

Source: CPMI; BIS Innovation Hub; IMF; World Bank. [92]

Project mBridge

One cross-border CBDC project to note is Project mBridge. Spearheaded by the Bank for International Settlements (BIS) Innovation Hub Hong Kong Centre, the Hong Kong Monetary Authority, the Bank of Thailand, the Digital Currency Institute of the People's Bank of China and the Central Bank of the United Arab Emirates, it aims to “directly connect jurisdictional digital currencies in a single common technical infrastructure [to] offer significant potential to improve the

[92] Committee on Payments and Market Infrastructures et al., 14.

current system and allow cross-border payments to be immediate, cheap and universally accessible with secure settlement".[93]

Project mBridge was an experiment on cross-border payments conducted from 15 August to 23 September 2022. During this period, 20 commercial banks from Hong Kong SAR, Mainland China, the UAE and Thailand conducted payment and foreign exchange (FX) payment versus payment (PvP) transactions on behalf of their corporate clients using the CBDCs issued on the mBridge platform by their respective central banks. It used distributed ledger technology (DLT) as a common platform where participant central banks can issue and exchange their respective central bank digital currencies (multi-CBDCs).

The intention of mBridge is to test a system of a network of direct central bank and private sector participants that can offer an efficient, low-cost, and common multi-CBDC platform with the view that such a platform can be leveraged for international trade flows and cross-border commerce growth. In designing the experiment, "attention was paid to modular functionality, scalability, and compliance with jurisdiction-specific policy and legal requirements, regulations, and governance needs. The platform design ensures that mBridge adheres to the five overarching CBDC principles emphasized by the CPMI/BIS Innovation Hub/IMF/World Bank report to the G20: *do no harm, enhancing efficiency, improving resilience, assuring coexistence and interoperability with non-CBDC systems and enhancing financial inclusion*." During the six weeks that it was operational, more than 160 payment and FX PvP transactions totalling more than US$22 million in value were facilitated on mBridge.[94]

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93 BIS Innovation Hub, "Project mBridge: Experimenting with a Multi-CBDC Platform for Cross-Border Payments," October 31, 2023, https://www.bis.org/about/bisih/topics/cbdc/mcbdc_bridge.htm.

94 BIS Innovation Hub, "Project mBridge: Connecting Economies through CBDC," October 26, 2022, https://www.bis.org/publ/othp59.htm.