

## **Unlocking Interoperability:**

Overcoming Regulatory Frictions in Cross-Border Payments

WHITE PAPER September 2023

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# Preface



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Cross-border payments have long been recognized as a significant barrier to international trade. In looking for solutions, emphasis has been placed on improving payment technologies and driving technical interoperability by promoting the adoption of internationally recognized technical standards. Both the public and private sectors have deployed or are in the process of deploying the latest technologies and tools, including blockchain, artificial intelligence (AI) and application programming interfaces, to improve cross-border payments. Such efforts reveal that advances in technology alone cannot solve all of the problems facing cross-border payments. Overcoming regulatory frictions to unlock interoperability is becoming increasingly crucial to ensure progress is made in building a cross-border payment system suitable for today's digital economy and trade. Policy-makers and industry experts alike are now coming to an agreement that regulatory frictions are a key obstacle to cross-border payments, and need to be addressed urgently.

This publication, Unlocking Interoperability: Overcoming Regulatory Frictions in Cross-Border Payments, has been produced under the direction and with the support of the World Economic Forum Digital Payments for Trade and Commerce Advisory Committee.<sup>1</sup> Important contributions and expert insights have come from the wider community – a multistakeholder group covering a wide range of players in the ecosystem and representing economies with payment systems at different stages of development. This global multistakeholder process attempts to answer some critical questions in creating a coordinated regulatory approach towards cross-border payments:

- What are the main regulatory frictions in building cross-border payments for a more integrated global economy, for both banks and nonbanks?
- What are the fundamental factors driving such regulatory frictions?
- How best to unlock regulatory interoperability for cross-border payments? In evaluating the recommendations, what should the guiding principles be?

The paper's findings reinforce the urgent need for policy-makers to collaborate with industry and users to realize the benefits of innovation while addressing the risks involved. It is hoped that this paper will provide useful insights for policy-makers at both the domestic and international levels, and accelerate existing dialogues at the regional and international levels, set directions for future discussions among policy-makers and stakeholders, and foster multistakeholder collaborations to build a futurefacing and user-friendly cross-border payment system for the inclusive growth of digital economy and trade.

# **Executive summary**

Regulatory interoperability is the foundation for building the overall interoperability of cross-border payments.

The rise of cross-border payments<sup>2</sup> because of increasing international trade and technology advances has outpaced the development of regulatory frameworks suitable for global trade. Such discrepancy results in inefficiencies and barriers that hinder seamless and cost-effective transactions at a global scale. Acknowledging the importance of regulations in the development of cross-border payments, the Financial Stability Board (FSB) listed coordinating legal, regulatory and supervisory frameworks as one of the three priority themes of the G20 Roadmap for Enhancing Cross-Border Payments. Meanwhile, the World Economic Forum led a comprehensive multistakeholder collaboration involving experts from the payment industry, technology companies, regulators, international organizations and academia to gather valuable insights into the regulatory frictions facing cross-border payments and propose potential solutions to promote regulatory interoperability.<sup>3</sup>

This white paper presents the challenges identified during this multistakeholder collaboration, including disparities in regulatory frameworks across jurisdictions, complexities in anti-money laundering/combating the financing of terrorism (AML/CFT) compliance, stringent data privacy and security regulations, and regulatory barriers to accessing payment systems and infrastructure. Such challenges contribute to cost increases and impede transactions.

To overcome these challenges and drive regulatory interoperability, the following actions are recommended via the multistakeholder process:

Make improving cross-border payment interoperability a key objective: This recommendation aims to boost cross-border payment interoperability by establishing clear governmental directives with a global perspective, crafting a holistic national interoperability policy covering cross-border interoperability and conducting data-driven regulatory impact assessments. It emphasizes the need to resolve instances of regulatory fragmentation to promote interoperability and the competitiveness of markets, crucial for a globally interconnected economy.

- Strengthen regulatory cooperation for cross-border payments: This recommendation aims to improve cross-border payments by enhancing regulatory cooperation. Core strategies include strengthening international bodies for better alignment, fostering crossborder regulatory sandboxes for innovation and facilitating dialogue among various regulatory authorities to address cross-border payment complexities.
- Modernize regulatory frameworks: This recommendation advocates modernizing regulatory frameworks for cross-border payments by adopting a hybrid approach to regulation and removing regulatory hurdles to accessing domestic payment systems. The hybrid approach merges entity- and activitybased regulations for effective risk management and balanced competition. The aim is to optimize transactions, enhance competition and promote financial inclusion while addressing the potential risks.
- Encourage public-private partnerships (PPPs): This recommendation encourages greater collaboration between regulators and industry stakeholders, including payment service providers (PSPs), technology companies and industry associations, to foster PPPs. By engaging in regular dialogues and cultivating a diverse multistakeholder community, the private sector, academia and civil society organizations can contribute valuable insights to shaping regulatory frameworks. These frameworks, in turn, promote innovation, ensure adherence to regulations and improve the overall efficiency and security of cross-border payments.

Improving regulatory interoperability can improve the efficiency of cross-border payments and promote financial inclusion by reducing overall costs while enhancing security and the robustness of the global payment system, as well as addressing the diverse needs of end users. By implementing the proposed strategies, regulators and industry stakeholders can bring about a more interconnected and efficient cross-border payment landscape.

# Introduction

The key to improving cross-border payments is to prioritize addressing regulatory frictions and recommend ways in which regulators can facilitate regulatory interoperability.

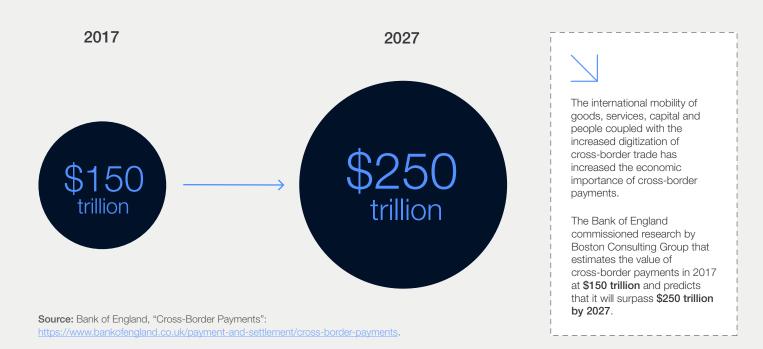
The value of cross-border payments is estimated to reach \$250 trillion by 2027, representing an increase of more than \$100 trillion in just 10 years.<sup>4</sup> Factors driving such growth include: 1) an increase in cross-border digital trade flows, such as e-commerce, video streaming, games, apps and remote learning; 2) the widespread adoption of digital payments driven by fintech and large technology companies with global footprints (often referred to as "bigtech") that bring new and convenient services and broaden access to financial markets; and 3) the development of technology that increases the efficiency of cross-border payments.

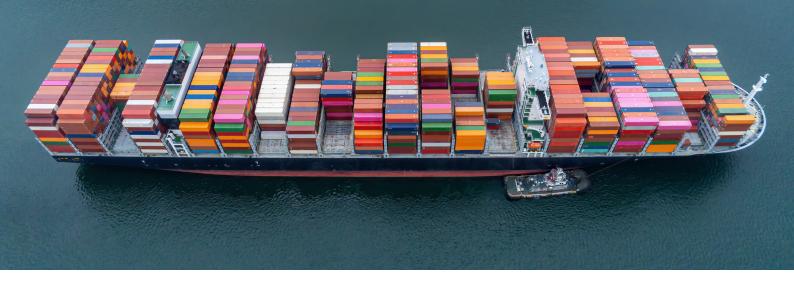
The value of global e-commerce sales is projected to exceed \$10 trillion by 2027, with cross-border transactions expected to make up at least 27% of that amount.<sup>5</sup> Global exports of digitally delivered services reached \$3.8 trillion in 2022, representing more than half of total global service exports.<sup>6</sup> Cross-border trade of digitally delivered services has risen at an average annual rate of 8.1% since 2005, outpacing the growth rate of cross-border goods (5.6%) and other services exports (4.2%).<sup>7</sup> Increased cross-border digital trade promotes the growth of cross-border payments and at the same time boosts the demand for faster, cheaper, more secure and more transparent payments, particularly for small-value transactions, which have increased in both volume and frequency in the past years. Cross-border digital trade also creates different use cases that come with a variety of needs beyond cost, speed, access and transparency.<sup>8</sup>

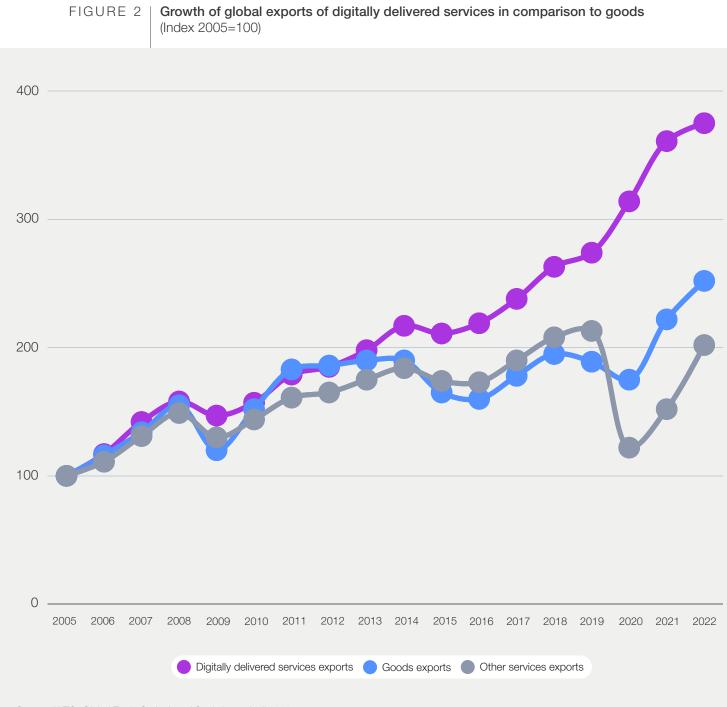
While trying to catch up with the demands of growing cross-border digital trade, the cross-border payments market has undergone a transformative shift, with the increasing participation of non-bank entities in the cross-border payments ecosystem. Such non-bank entities include fintech<sup>9</sup> firms and bigtechs, such as Wise, Alibaba, Tencent, Google and Amazon. These innovative players have introduced groundbreaking approaches and increased competition in payment markets.

FIGURE 1









**Source:** WTO, *Global Trade Outlook and Statistics*, 5 April 2023, p. 15: https://www.wto.org/english/res\_e/booksp\_e/trade\_outlook23\_e.pdf. The cross-border ecommerce market is expected to represent around **22%** (\$1.4 trillion) of total global ecommerce spend in 2022 and reach **27%** (\$52.7 trillion) by 2027.



Source: Edgar, Dunn & Company, Future Fintech – No Borders, Just Horizons: 2021 Fintech Report, p. 7: https://www.ednard.nn.com/reports/juture-fintech-no-borders-just-horizons-edgar-dunn-companys-2021-fintech-report

### FIGURE 3 | |

Demand for cross-border payments is growing fast



Source: World Economic Forum.

In recent years, the emergence of cryptocurrencies promises to significantly reduce settlement times and costs for cross-border payments. The market cap for cryptocurrencies has reached \$1 trillion, with an average daily transaction volume of \$30 billion as of July 2023.<sup>10</sup> At the same time, central banks are experimenting with various crossborder payment arrangements by developing their digital currencies or connecting existing fast payment systems.<sup>11</sup> In addition to digital currencies, companies deploy artificial intelligence (AI) to improve efficiency in identifying patterns of criminal activities, screening of watchlists and optimizing cross-border payment routing.<sup>12</sup>

While significant strides have been made in technology and operational efficiency, cross-border payments are still far from ideal. Depending on the type of payment methods and currencies involved, cross-border payments can take several days to

process and the cost can be high, with limited transparency in terms of timing and cost before settlement.<sup>13</sup> While transactions are global in nature, regulations are still designed and enforced locally. The complex regulatory environment, characterized by high compliance costs and adherence to divergent regulations across jurisdictions, has led to prolonged processing times and increased costs for businesses and consumers. New entrants and technology also present challenges to regulators striving to address novel risks presented by new business models and innovation and level the playing field among payment players. Demand for seamless, cost-effective and safe cross-border payments is growing faster than regulators' ability to establish a globally coordinated and interoperable regulatory framework. For example, in Project Nexus<sup>14</sup> and Project mBridge,<sup>15</sup> two public sectorled cross-border payment experiments using the latest technology, the lack of an interoperability

regulatory framework is cited as a key obstacle for large-scale implementation in real life, which proves that technology alone cannot solve every problem facing cross-border payments. Project Dynamo,<sup>16</sup> which explored the use of stablecoins/ digital tokens in trade finance, also highlighted that regulatory clarity and harmonization across jurisdictions (specifically the regulatory frameworks for stablecoins and utility tokens) are vital to facilitate the use of such tokens globally, as trade and payments are global by nature.

### Digitally delivered services exports, 2022









Source: WTO, Global Trade Outlook and Statistics, 5 April 2023, p. 15: https://www.wto.org/english/res\_e/booksp\_e/trade\_outlook23\_e.pdf.

> Building upon the World Economic Forum's ongoing work in driving payment interoperability, this white paper prioritizes areas of regulatory friction and proposes recommendations for ways in which regulators can improve regulatory interoperability for cross-border payments. To produce this paper, the Forum used an interactive multistakeholder co-designing process involving surveys, in-depth interviews and collaborative workshops. The paper reflects insights from a diverse range of experts from the payment industry, including payment service providers (PSPs) (both

banks and non-banks),<sup>17</sup> regulators, international organizations and academia. Recommendations include making efficiency and inclusion a key objective, strengthening regulatory cooperation, modernizing regulations and fostering publicprivate partnerships. Each recommendation is evaluated according to whether it could achieve the policy objectives of effectiveness, safety and equity for cross-border payments. It is hoped that the recommendations shed light on the process of driving regulatory interoperability for the future of more efficient cross-border payment systems.



(2)

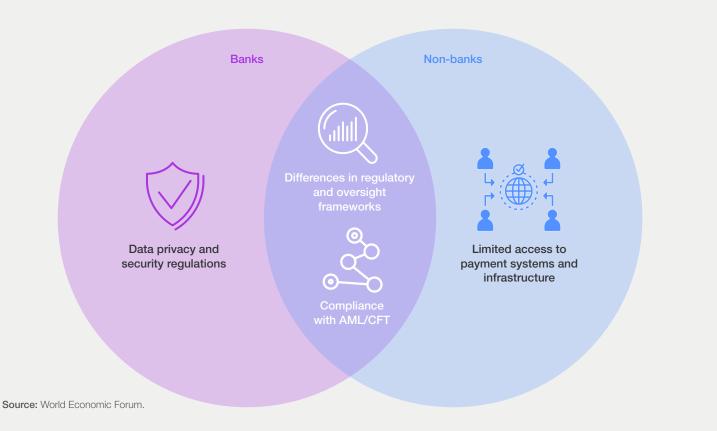
# Key regulatory frictions in crossborder payments

Bank and non-bank PSPs experience shared areas of regulatory frictions in cross-border payments, but there are also sector-specific issues that need to be addressed.

According to the survey conducted for this paper, the top three regulatory frictions for bank PSPs are: differences in regulatory and oversight frameworks among jurisdictions; the complexities associated with complying with anti-money laundering/ combating the financing of terrorism (AML/CFT) requirements in a cross-border setting; and the need to adhere to stringent data privacy and security regulations. For non-bank PSPs, the survey shows that the top three regulatory frictions

are: regulatory barriers to accessing payment systems and infrastructure; compliance with AML/ CFT requirements in a cross-border setting; and differences in regulatory and oversight frameworks across jurisdictions. Notably, the last two challenges are also prevalent among banks, underscoring their relevance and impact across the entire payment industry landscape. A visual representation of these key findings is illustrated in Figure 4.

### FIGURE 4 The four most significant regulatory frictions and challenges for banks and non-banks payment service providers



### Differences in regulatory and oversight frameworks

Inconsistent or unaligned legal, regulatory and supervisory frameworks can pose significant challenges and frictions in the cross-border payments landscape.<sup>18</sup> Inconsistencies can arise in areas such as licensing requirements, consumer protection regulations, AML/CFT measures, data privacy laws and transaction monitoring standards. Inconsistencies are particularly pronounced among new entrants and innovative technologies where there is limited or no regulatory precedent to follow and risks to financial systems and customers are not yet apparent. Regulatory uncertainty deters responsible players from entering new markets. It also creates loopholes in managing market risks and creating regulatory arbitrage.<sup>19</sup> Regulations concerning banks are usually clearer given the long history of regulation in this area. However, when banks venture into innovative areas, such as deploying payments using blockchain, they also seek clarity and consistency across jurisdictions to streamline internal compliance processes. Further, banks look for consistency in regulations covering similar activities so that they do not lose their competitive advantage in comparison to new entrants.

The correlation between increased regulation and the divergence of such regulation is a concern underscored in a report by the Organisation for Economic Co-operation and Development (OECD) and the International Federation of Accountants (IFAC).<sup>20</sup> The predicament is evident: the report reveals that in 75% of surveyed institutions, a considerable or highly significant impact on financial performance was observed due to regulatory divergence. Furthermore, 71% of participants highlighted these developments as barriers to extending their business into new jurisdictions.

### 2 Compliance with AML/CFT requirements

The multistakeholder survey conducted for this paper revealed that the current AML/CFT regime presents a conundrum for internationally active correspondent banks, which must comply with costly and often ineffective requirements or face legal and reputational risk under zero-tolerance enforcement.

Experts highlighted that the varying pace and level of implementation of Financial Action Task Force (FATF) guidelines create inconsistency around AML compliance requirements across jurisdictions, which results in confusion, frustration and inconsistencies. Moreover, the broad and principles-based nature of FATF guidelines allows for varying regulatory approaches and interpretations, leading to differences in requirements and compliance expectations. Due to such inconsistency and fear of significant financial loss and reputational damages because of non-compliance enforcement, compliance personnel tend to err on the side of caution, implementing rules more stringently than is legally required. Such an approach has led to a phenomenon known as "de-risking", in which banks terminate or restrict correspondent relationships in certain geographies because the profits generated from those regions cannot cover the compliance costs associated with operating businesses there. De-risking excludes certain populations, particularly those facing economic difficulties, from accessing cross-border payment services.

A study conducted by LexisNexis on the cost of financial crime compliance found that financial institutions faced a projected financial crime compliance cost of approximately \$274 billion globally in 2022.<sup>21</sup> The study also concluded that the average annual cost of financial crime compliance per organization has risen since the COVID-19 pandemic began.<sup>22</sup> Increasing AML regulations, growing data privacy requirements and more complex investigations are among the top reasons identified for the rise in compliance cost.<sup>23</sup> Institutions interviewed reported an increasing level of trade-based money-laundering schemes and financial crimes involving digital payments and cryptocurrencies.<sup>24</sup>

#### Data privacy and security regulations

The interplay among data-related regulatory frameworks, encompassing data privacy, security and data localization requirements, has a significant impact on the daily operations of PSPs running cross-border transactions. Data collection and information sharing across borders are indispensable for effective cross-border supervision, oversight and enhanced risk management for both regulators and cross-border PSPs.<sup>25</sup> Data-related regulatory frameworks may run into conflicts with financial regulations, which can impede or even prohibit the sharing of crucial information.<sup>26</sup> In particular, data localization requirements may restrict the transfer of data required for processing cross-border transactions or conducting AML/CFT functions, leading to delays and increased costs for cross-border payments. PSPs must balance data protection, mandated by localization laws, with transparency and monitoring, key to AML/ CFT compliance. Evidence shows that regulatory heterogeneity around data governance has grown rapidly.<sup>27</sup> Data from 2021 from the World Bank suggests that the average impact of data localization requirements amounts to approximately 6.4% of the transaction value,<sup>28</sup> placing additional burdens on PSPs and escalating the overall expense of cross-border transactions.<sup>29</sup>

Regulators face the daunting task of finding a balance between the imperative of efficient and cost-effective cross-border payments and the need for data sovereignty, privacy and security. Insufficient collaboration among financial regulatory and supervisory bodies as well as with data protection agencies can further intensify the tension among financial and data regulations.

### Regulatory barriers to accessing payment systems and infrastructure

The multistakeholder process conducted for this paper revealed that non-bank PSPs encounter substantial regulatory challenges when attempting to access domestic payment systems. Legal and regulatory frameworks may create obstacles for non-bank PSPs to participate in national payment systems in the following ways: 1) regulations directly exclude non-bank PSPs from participating in the payment systems, such as the EU Settlement Finality Directive; 2) regulations set out eligibility requirements that non-bank PSPs cannot meet (for example, legislation may require banking licences, not available to non-bank PSPs, as a prerequisite for participating in national networks); 3) access is often limited to PSPs that hold financial services licences locally. Cross-border payment service

providers will need to obtain financial services licences in many jurisdictions if they want to be connected to national payment systems.<sup>30</sup>

A survey conducted in 2021 by the Committee on Payments and Market Infrastructures (CPMI) of the Bank for International Settlements (BIS) revealed that only a limited number of payment systems permit direct access to entities beyond domestic banks.<sup>31</sup> Direct participation in payment systems can significantly reduce the number of intermediaries involved in transactions, thereby lowering pre-funding costs for market participants without direct access.<sup>32</sup> Facilitating increased access to payment systems can help create a more level playing field for both banks and non-bank PSPs, encouraging innovation and competition in the industry.

### BOX 1 Concept of a "safe payment corridor" to address the issue of de-risking

The World Bank and the International Monetary Fund (IMF) published A Draft Framework for Money Laundering/Terrorist Financing: Risk Assessment of a Remittance Corridor in September 2021.33 Despite the focus on remittance, the principles developed in the paper may also be applied to retail payments, which represent a lower risk than remittance because the payments are associated with a verifiable exchange of goods and services. The paper provides an actionable framework to assess "safe payment corridors". Regulators in payment corridors that are assessed to have low moneylaundering/terrorist financing (ML/TF) risks can consider implementing simplified customer due diligence requirements and/or even exempt PSPs from certain AML/CFT requirements or providing

relief from ML/TF liabilities in low-risk scenarios. Such a framework, once implemented, may help reduce compliance costs for PSPs and revive correspondent banking relationships in developing or less-developed countries. Vigorous and continuous risk assessment requires capital investment in regulatory agencies to hire or train staff to carry out such work. Depending on how the framework is implemented, regulatory coordination between sending and receiving countries and between corridor countries and the rest of the world is required to ensure the financial integrity of the corridor. Further assessment needs to be conducted on the impact such a framework might have on the overall compliance costs for PSPs that operate globally.



(3)

# Factors driving key regulatory frictions

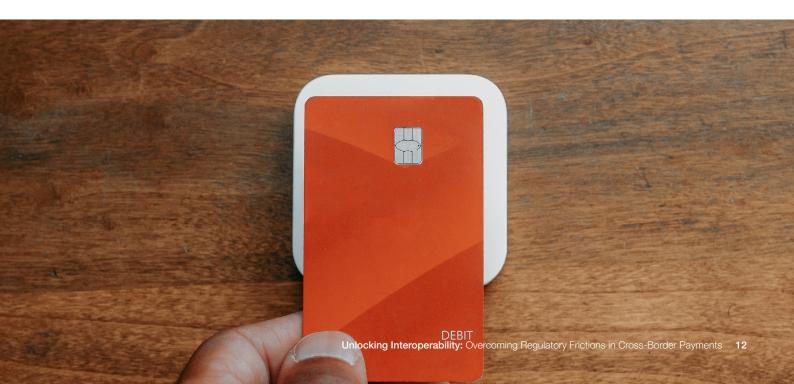
Four clear factors result in regulatory frictions that are hampering progress in cross-border payments.

Expert insights from the multistakeholder community have identified four key factors that contribute to the regulatory frictions and challenges in cross-border payments discussed earlier:

- Different levels of financial market
   development. One of the key factors in crossborder payment regulatory frictions derives from financial markets in different jurisdictions being at different stages of development, which often correspond with countries' differing levels of economic development. In recent years, many payment innovations resulted from emerging markets that perhaps did not have robust financial regulatory systems. While lack of regulatory oversight may have promoted the fast growth of non-bank PSPs in certain markets, it can also create regulatory arbitrage and expose the financial market and consumers to systemic risks.
- Lack of a global regulatory perspective.
   Currently, there is a lack of global regulatory perspective when designing payment regulations, with regulatory frameworks focused primarily on domestic scenarios, despite the increasing interconnectedness of economies.
   This compounds the difficulties faced in crossborder transactions as rules often vary between originating and receiving countries. The absence

of a global perspective in regulatory design creates complexity for compliance, hinders the expansion of innovative solutions for crossborder payments and limits the availability of payment services.

- Insufficient collaboration among regulators from different jurisdictions. Insufficient crossborder collaboration among regulators leads to a lack of consensus on how to manage ML/TF risks and frauds, as well as risks imposed by new entrants and innovations. Enabling crossborder collaborations is a significant challenge for regulators, potentially involving geopolitical or technical discussions that require careful consideration and the balancing of competing interests.
- Lack of public-private partnerships (PPP). A lack of PPPs hampers the ability to leverage industry expertise, technological advances and innovative approaches to address common challenges and regulatory frictions and drive interoperability. This lack impedes the collaborative initiatives needed to combat crossborder criminal activities, design appropriate regulatory approaches towards innovations and promote competition to provide better services to consumers.



# Unlocking regulatory interoperability

As transactions and economies become increasingly interlinked, regulators must enhance cross-border payment interoperability to ensure trade competitiveness and economic growth.

To assess potential recommendations to address regulatory frictions identified through the multistakeholder process, the experts involved propose the criteria outlined in Table 1.

Every country has its own unique culture, history, political and regulatory environment and a different level of economic and financial market development. It is important to consider those country-

specific characteristics in promoting regulatory interoperability for cross-border payments. The multistakeholder survey conducted for this paper revealed the following four key recommendations to address regulatory frictions and the factors driving those frictions identified earlier. Those recommendations also provide enough flexibility for country-specific laws and regulations.

#### TABLE 1 Criteria for evaluating recommendations to address regulatory frictions facing cross-border payments



Source: World Economic Forum

### 4.1 Make improving cross-border payment interoperability a key policy objective

	<ul> <li>Historically, domestic financial stability and market integrity have been top priorities for financial regulators, taking precedence over cross-border payment interoperability. In a world where transactions and economies are becoming increasingly interlinked, enhancing cross-border payment interoperability is becoming more and more important for regulators to ensure competitiveness in trade and economic growth. The G20 is paving the way for this transition by identifying that enhancing cross-border payments is a key policy priority, demonstrating the urgent need for regulatory reform and improvement. A holistic national policy that considers cross-border payment interoperability is needed as an integral part of a country's payments policy agenda. Achieving this requires the development and promotion of several key strategies:</li> <li>Include enhancing cross-border payments in regulatory mandates: It is regulators' responsibility to provide explicit mandates that underscore the criticality of cross-border payment interoperability. These directives should aim to foster transparency (while protecting proprietary information), seek to improve transaction efficiency and promote competition (while managing risks and addressing other user needs). Setting clear mandates incorporating cross-border payment interoperability as a key objective is the first step towards creating a more interoperability necessitates a synergistic effort encompassing multiple agencies, the public and private sectors</li> </ul>	<ul> <li>and international standard-setting bodies. To effectively respond to this complex challenge, a country must champion the formulation of a broad-based interoperability policy. Such policy, built on insights from relevant stakeholders, should articulate clear, measurable objectives. This encourages continuous evaluation and adaptation, ensuring that the policy remains responsive to the evolving landscape of crossborder payments.</li> <li>Promote regulatory impact assessments on cross-border payments: Regulatory impact evaluations are crucial when crafting novel regulations or implementing substantial amendments to current ones. These evaluations should scrutinize the potential repercussions of domestic regulations on cross-border transactions, the consistency of regulations in comparison with their major trading counterparts, the competitiveness of markets and the overall efficacy of cross-border payment systems, with qualitative and quantitative measurements. Such thorough analyses would facilitate the detection of potential hindrances to interoperability, thereby guiding the formation of more effective, streamlined and harmonized regulatory frameworks. <i>Defining and Measuring Payment Interoperability</i>, a white paper published by the World Economic Forum, provides some initial thoughts and structure regarding how to set such impact assessments.<sup>34</sup></li> </ul>	
TABLE 2	Potential impacts of making cross-border pay	ment interoperability a key policy objective	
Effectiveness ☆☆☆	The proposal's emphasis on clear mandates and regular regulatory impact assessments could lay out clear guiding principles and objectives for regulators designing regulatory frameworks that affect cross-border payments. This helps to clarify the compliance landscape. The proposal advocates a national policy that elevates regulatory interoperability. This strategy will also encourage technical and network interoperability, optimizing the collaboration of systems, technologies and networks across jurisdictions. The result is a simpler, faster cross-border transaction process, leading to enhanced efficiency.		
Safety	Safety in cross-border payments could be bolstered through this proposal by setting up regulatory impact assessments with clear qualitative and quantitative criteria. Regulatory impact assessments can aid in identifying potential vulnerabilities, allowing for proactive measures. Driving regulatory interoperability can also mitigate regulatory arbitrage, reducing fraud risks and enhancing the security of the global financial system.		
Equity	The inclusion aspect of the proposal directly contributes to equity in cross-border payments. The emphasis on inclusivity in mandates and the interoperability policy aims to extend the benefits of efficient, safe cross-border transactions to a broader population. This could help reduce the financial divide, giving underrepresented or marginalized populations better access to cross-border payments.		



Make improving cross-border payment interoperability a key policy objective

Source: World Economic Forum.



Strengthen regulatory cooperation for cross-border payments



Modernize regulatory frameworks



Encourage public-private partnerships (PPPs)

# 4.2 Strengthen regulatory cooperation for cross-border payments

Regulators have taken diverse approaches to driving regulatory cooperation for cross-border payments: entering into bilateral and multilateral agreements; signing memoranda of understanding; or engaging with regional or international organizations. Cooperation helps drive consistent standards across jurisdictions, reduces barriers to innovation adoption and market entry and improves oversight coordination for cross-border payments.

Several regional, international and intergovernmental organizations have been working to drive regulatory interoperability for cross-border payments. At the regional level, the European Union sets the best example in terms of building regulatory interoperability for cross-border payments: harmonized laws and regulations, harmonized implementation of laws and regulations, and harmonized enforcement to pave the way for the setting up of the Single Euro Payments Area (SEPA).<sup>35</sup> At the global level, the United Nations Commission of International Trade Law (UNCITRAL) published the Model Law on International Credit Transfers in 1992 in response to the need to bridge legal gaps that resulted from major changes in the means by which cross-border payments were made.<sup>36</sup> Under the leadership of the G20, the Financial Stability Board, the IMF, the World Bank, the CPMI, the BIS Innovation Hub and FATF are joining forces to enhance crossborder payments. Improving the consistency of bank and non-bank regulation and supervision, enhancing information for end users and updating the application of AML/CFT rules have been identified as priority themes on legal, regulatory and supervisory frameworks,<sup>37</sup> consistent with the gaps identified through the multistakeholder process. To promote interoperability at a global level, it is important to continue consulting

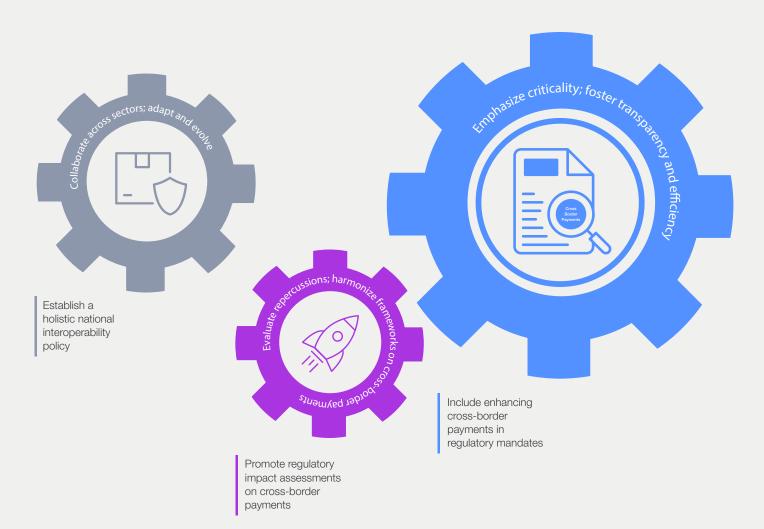
countries beyond the G20 and to encourage them to consider recommendations resulting from the implementation of the G20's roadmap.

With fast-moving innovation in the payments space and varying levels of financial market development in different countries, all jurisdictions should strengthen their regulatory coordination with one another, actively participate in global regulatory coordination efforts and engage with regional and international organizations to promote cooperation, information sharing and alignment of regulatory approaches. Strengthening regulatory cooperation for cross-border payments requires developing various policies, including:

Strengthen existing regional and international organizations for regulatory coordination and alignment at the global level: Regional and international organizations play a vital role in promoting regulatory interoperability. More support should be given to regional and international organizations to help facilitate regular communication and collaborations among regulators across agencies in different countries to bridge regulatory gaps, align regulatory approaches to reduce regulatory arbitrage and share best practices. Implementing agile governance to promote innovation requires financial support to train existing personnel and attract new talent. More investments are required within regional and international organizations to organize technical assistance and capacitybuilding programmes to help regulators understand emerging technologies and their implications and implement regulation technologies and methodologies.

	Encourage regulatory sandboxes or innovation hubs for cross-border payments: Regulatory sandboxes are increasingly being used to create a controlled environment in which regulators, businesses and innovators can collaborate, test new technologies and business models and assess their regulatory implications. Studies show that these sandboxes create regulatory certainty, help innovators attract capital and reduce compliance costs. <sup>38</sup> In 2022, the Reserve Bank of India's sandbox on cross-border payments resulted in four fintechs being approved following completion of the test phase. <sup>39</sup> Pacific Island countries are in the process of setting up a Pacific Regional Regulatory Sandbox, with the goal of addressing friction in dealing with fintech regulations. <sup>40</sup> Nevertheless, regulatory sandboxes focusing on cross-border payments and cross-border regulatory cooperation remain limited in number; for cross-border innovations to deliver their benefits and regulators to find a consistent approach to innovation, more cross- border collaboration on regulatory sandboxes or innovation hubs is needed.	<ul> <li>Enhance cross-border regulatory cooperation and coordination: Greater cooperation and coordination are needed to address regulatory frictions in cross-border payments. In addition to regular dialogues, this cooperation and coordination may take many forms, such as entering into digital economy agreements to commit to global standards and interoperability or entering into fintech cooperation agreements.<sup>41</sup> They can also take the form of information sharing on AML/CFT and fraud, mutual recognition of laws and regulations in areas such as data privacy, licensing, sandbox approvals and eligibility to participate in payment systems, or developing a single rule book for cross-border payments.<sup>42</sup> Encouraging cooperation and facilitating information exchange promotes a comprehensive understanding of diverse regulatory frameworks. This, in turn, drives dialogue and stimulates the development of shared strategies to address the complexities of cross-border payment challenges.</li> </ul>
TABLE 3	Potential impacts of strengthening regulatory	cooperation
Effectiveness ជាជាជា ជាជា	Promoting global regulatory coordination aligns approaches and streamlines regulatory frameworks, reducing unnecessary complexities and facilitating smoother cross-border transactions. Regulatory sandboxes and innovation hubs for cross-border payments foster collaboration, test innovative technologies and implement regulatory assessment, leading to the adoption of efficient and effective payment solutions.	
Safety	Putting capacity-building programmes into action means investing in training and sharing knowledge. This helps regulators better understand global rules and new risks, enabling them to manage risks effectively while promoting innovation. Encouraging regulatory collaboration can enhance risk management, oversight and compliance with data privacy rules, security regulations and AML/CFT requirements. Coordinated efforts and shared insights deliver a stronger approach to counter financial crimes, safeguard consumer data and secure cross-border transactions.	
Equity	By promoting global regulatory coordination, barriers and inconsistencies in regulatory requirements can be minimized, creating a level playing field for market participants, including non- bank payment providers and underbaked populations. The proposal encourages innovation, knowledge sharing and experimentation, leading to the development of diverse and accessible payment solutions that cater to the needs of individuals and businesses worldwide.	





Source: World Economic Forum.

BOX 2

### A Set of UNCITRAL model laws that form foundations for cross-border payments

In delivering on its mandate to promote harmonization and modernization of international trade law, UNCITRAL issued model laws that establish foundations for international trade and cross-border payments. As well as the Model Law on International Credit Transfers (1992), which is directly relevant to cross-border payments, model laws on electronic signatures (2001), electronic transferable records (2017) and the use and cross-border recognition of identity management and trust services (2022) all contribute to the development of international legal norms that affect the execution of cross-border transactions.



### BOX 3 | Regulatory governance design for a multilateral platform for cross-border payments

Multilateral platforms for cross-border payments are more common and better known than may be realized. Visa and Mastercard have been in existence for years, with many entities participating in their networks across several jurisdictions. There are also several wholesale and retail multilateral platforms run by regional intergovernmental organizations.<sup>43</sup> Varying legal protection for important concepts such as settlement finality, additional regulatory requirements on foreign operators, market entry barriers such as controls on foreign direct investments and data localization requirements are all legal barriers to the successful operation of a multilateral platform.<sup>44</sup>

Despite the regulatory challenges those platforms face, their governance models can set examples of regulatory coordination for a global-level multilateral platform for cross-border payments. Project Nexus run by the BIS Innovation Hub Singapore Centre experiments with building a global-scale project that links existing fast payment systems from multiple jurisdictions using APIs in a hub-and-spoke manner.<sup>45</sup> Its proposal includes a Nexus Scheme Organization (NSO) with decisions about the scheme made by the NSO board and payment network operators (usually central banks) and other relevant supervisory bodies form a joint oversight forum to ensure that the operation of the network does not pose financial risks and to coordinate regulatory divergence. Project Nexus revealed that inconsistent or conflicting regulatory requirements are among the key challenges encountered when operating such a network. As its next step, the team will conduct further work to map out any incompatibilities between regulatory regimes and explore how Nexus can accommodate all of these differences.

### 4.3 | Modernize regulatory frameworks

In a rapidly digitalizing world, regulatory frameworks must evolve to keep pace with the ever-changing financial services landscape. The participation of bigtech and fintech in cross-border payments and the introduction of new technologies promote financial inclusion and bring better services to consumers. However, they also complicate the regulatory landscape by introducing potential new risks, particularly concerning AML/CFT, consumer protection and market competition. Crafting a well-balanced strategy that ensures fair competition and reduces the risks to both the financial system and consumers poses a significant challenge for regulators within the current financial landscape.

Adopt a hybrid model combining entitybased and activity-based approaches: Principles of "same activity, same risk, same regulation" and proportionality (the level of regulation in proportion to the systemic risks an entity or activity presents) are two important agile governance concepts in formulating regulations. Those two principles power a recommendation for an activity-based approach in regulating non-bank PSPs, i.e. regulating entities based on the exact activities they carry out. The activity-based approach levels the playing field by subjecting all entities to the same regulation when their activity-based approach requires a very clear definition of activities and close coordination across countries regarding the definition and enforcement – failure to do so could create regulatory arbitrage in a crossborder setting.<sup>46</sup> As the cross-border payments volume processed through non-bank PSPs continues to rise, closing regulatory gaps and reducing arbitrage opportunities in non-bank regulations become important tasks in order to preempt systemic risks at a global level. This is why improving consistency of bank and non-bank regulation and supervision becomes a priority action as part of the FSB's priority actions for achieving the G20 targets.<sup>47</sup>

The IMF recommended a hybrid approach, offering a balance between activity- and traditional entity-based approaches.<sup>48</sup> It involves conducting a close study of economic functions and activities to identify and monitor risks and move from an activity-based approach to an entity-based approach when the operations of a company become capable of creating systemic risks to the market.<sup>49</sup> Markets in Crypto-Assets Regulation (MiCA) is a good example of an attempt to strike such a balance by applying a more activity-based approach to smaller issuers and a more entity-based approach to marketsignificant issuers.<sup>50</sup>

	Remove regulatory barriers to accessing domestic payment systems: Improving access to domestic payment systems can greatly optimize cross-border transactions, particularly when countries are starting to connect their fast payment systems. A more accessible system allows non-bank PSPs to compete effectively, reduces intermediaries and lowers costs for consumers, thereby promoting financial inclusion and competition. Broadening non-bank PSPs' access to domestic payment systems requires regulators to reevaluate any of their eligibility requirements that could potentially block non-bank PSPs from participating	<ul> <li>in payment networks, including licensing requirements and access to central bank settlement accounts.<sup>51</sup></li> <li>While there are many benefits associated with widening access, the process also introduces risks to the payment systems, such as counterparty credit risks, operational risks and stability risks. It is crucial for regulators to conduct risk assessments in resetting eligibility requirements.</li> <li>Table 4 briefly analyses how this recommendation will affect the efficiency, safety and equity of crossborder payments.</li> </ul>
TABLE	4 Potential impacts of modernizing regulatory	frameworks
Effectiveness ☆☆☆ ☆☆	This recommendation promotes reduced compliance costs by aligning regulations with specific activities, not licensed entities, easing PSPs' burden, particularly when fintech or bigtech entities do not have systemic impact. Broadening access to domestic payment systems allows PSPs to bypass various intermediaries, simplifying compliance and cutting costs. Moreover, this recommendation promotes common standards and technology adoption by expanding PSPs' access to payment systems, enhancing technical interoperability.	
Safety	Consistent rules and security controls minimize fraud, but an activity- focused approach in cross-border payments can heighten security risks in areas such as data governance, operational resilience and other risks, necessitating a balanced, hybrid regulatory strategy.	
No.	A hybrid regulatory approach, combining entity-based and ac payments by providing comprehensive and adaptable oversig guidelines for innovation, thus reducing system vulnerabilities.	ht, minimizing regulatory arbitrage and offering clear
Equity	Competition promotes innovation. New players can bring novel ideas and solutions, driving improvements in serv and technology.	
€ <b>T</b> \$	By broadening eligibility criteria, this recommendation may and diverse market. This can lead to better pricing and ser	



### 4.4 | Encourage public-private partnerships (PPPS)

The payment industry plays an important role in promoting trade and commerce and forms the foundation of a healthy economy. The public infrastructure nature of payments presents a unique opportunity for the public and private sectors to work together to produce agreement on their respective roles as the technologies evolve. To ensure that cross-border payments are secure, efficient and accessible, regulators should work with the private sector to understand the latest technologies and their regulatory implications. Public and private collaborations can lead to more informed and effective regulatory decisions as well as the development of interoperable solutions and frameworks with shared resources. They can also result in a safer global financial market thanks to a greater ability to detect crimes through improvements in information exchange.

Committing to a joint public- and private-sector vision to improve cross-border payments is

one of the focus areas of the G20 Roadmap for Enhancing Cross-Border Payments. As part of the actions to encourage PPPs to follow the G20 Roadmap, the FSB is collaborating with the CPMI to convene an annual payments summit with senior industry representatives and industry taskforces to encourage the public sector to conduct outreach with market participants, such as regular workshops to update them on progress and exchange experiences.<sup>52</sup> Building an effective PPP requires regulators to involve a diverse base of industry participants that represent different payment methods and carry out different functions in the cross-border payments value chain, fostering trust and transparency and promoting interactive and candid communications.

Table 5 briefly analyses how this recommendation will affect the efficiency, safety and equity of cross-border payments.

#### TABLE 5 | Potential impacts of encouraging public-private partnerships

Effectiveness 公公公 The recommendation encourages streamlined compliance by sharing resources, expertise and technologies; reducing costs; and promoting effective risk management. It fosters collaboration on technical standards, protocols and infrastructure, enhancing technical interoperability and the integration of payment systems.



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PPP can play a crucial role in managing risks in cross-border operations. By combining the expertise and resources of both sectors, partnerships can enhance risk management frameworks, develop robust security measures and facilitate information sharing to address potential threats and vulnerabilities. This collaborative approach contributes to the safety and resilience of cross-border payment systems.



Effective PPP has the potential to increase innovation and reduce barriers to entry for new competitors. By encouraging collaboration, knowledge exchange and access to resources, partnerships can stimulate innovation in payment services and technologies. This leads to a more dynamic and competitive market environment, providing consumers with a wider range of options and promoting fair competition among participants.

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# Conclusion

Enhanced regulatory interoperability is crucial for efficient and safe cross-border payments, as demand for such payments is expanding rapidly, outpacing regulators' ability to establish suitable regulatory frameworks.

The process of developing this white paper involved a diverse range of jurisdictions with financial markets at different levels of development, a broad base of PSPs ranging from international banks to small start-ups and a wide variety of technology providers. The process – from identifying key obstacles to proposing solutions through a range of tools deployed to build trust that would lead to effective communications – was an example of effective public-private collaboration.

Key recommendations developed in the process include: amplifying cross-border payment interoperability as part of the primary objectives; reinforcing global regulatory cooperation; modernizing regulations through a hybrid approach that combines entity- and activity-based processes and enhanced access to payment systems for PSPs; and promoting public-private partnerships to construct a robust ecosystem for cross-border payments. Policy advocacy for regulatory interoperability can alleviate regulatory frictions identified, creating a pathway for cross-border payments that responds to the diverse needs of end users. However, the recommendations included need to be adopted in accordance with individual jurisdictions' unique circumstances and objectives, with a shared aim of nurturing responsible innovation and promoting competition while managing risks.

Enhancing cross-border payment systems unlocks many opportunities for businesses and individuals, encouraging financial inclusion and positively affecting the global economy. Regulators and the private sector, with the support of international bodies, can help create a world in which payments flow smoothly across borders and regulations inspire confidence and trust, with progress celebrated as a collective triumph.

### Contributors

This white paper is the product of many interviews, survey responses, workshops and research activities. The views expressed may not directly reflect the perspectives of all participating individuals or organizations, nor those of their institutions. Thanks are due to everyone who lent their expertise through surveys, interviews and workshops, including those not specifically acknowledged.

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