

FOUNDATIONS FOR CROSS BORDER DATA FLOWS TO SUPPORT DIGITAL FINANCE, TRADE AND SUSTAINABILITY

Emerging contours and implementation pathways

December 2024

CONTRIBUTORS:

Ivan Mortimer-Schutts

Policy Advisor, Dataswyft & IFC

Lav Odorovic

CEO & Co-Founder, Relio



Contents

About	3
Preface	4
A shifting economic and policy landscape	5
A new phase of market developments in trade	7
Vision, workarounds & incremental actions	9
Markets find workarounds	10
Incremental and multilateral actions	11
Contributors	13
References	14



The Global Finance & Technology Network (GFTN) (formerly known as Elevandi) is a not-for-profit organisation established by the Monetary Authority of Singapore (MAS) in 2024 to harness technology and foster innovation for more efficient, resilient, and inclusive financial ecosystems through global partnerships. GFTN organises convening forums, offers advisory services on innovation ecosystems, provides access to transformative digital platforms, and invests in technology startups with the potential for growth and positive social impact through its venture fund.

For more information, visit www.gftn.co

Preface

A roundtable on the foundations for cross-border data flows to support digital finance, trade and sustainability was held at the Point Zero Forum 2024. It brought together public and private sector experts from key domains to explore the challenges and opportunities in navigating this complex landscape*. Participants discussed potential pilots and initiatives to test cross-border data sharing innovations or arrangements to satisfy existing policy positions while creating a practical framework for industry to take advantage of digitalisation in trade and finance. A general shared goal was to highlight the feasibility of protecting national interests and policy aims while enabling the benefits of digitalisation to scale across borders.

The discussion was structured around three main topics: cross-border data requirements and challenges in the context of trade and supply chain digitalisation, cross-border data challenges within digital finance and payments, and structural foundations for cross-border data architectures. Each agenda item began with opening remarks from experts in the field, followed by open discussions and Q&A.

This report outlines the main threads of discussion and actions that could both enable the free flow of data while addressing concerns around privacy, cybersecurity, and the protection of intellectual property rights.

This report was authored by Ivan Mortimer-Schutts and Lav Odorovic

* The roundtable participants included discussants from the ICC Digital Standards Initiative, SWIFT, the International Institute of Finance, Baker McKenzie, HSBC, the Financial Stability Board, Giesecke + Devrient, GLEIF, and Visa.

A shifting economic and policy landscape

Policy drivers pushing in opposing directions

The landscape for cross-border data flows continues to evolve, slowing and in some cases, impeding commercial innovations. While some areas of economic policy aim to unlock and promote data flows, other policy domains are tending towards more restrictive practices. On balance, the trajectories of many countries, including those previously holding more open views on data, are converging on greater restrictions and protections. This sets a challenging environment that may become more complex before nascent initiatives can begin to turn a corner to balance and possibly resolve competing aims.

Privacy and security concerns and measures on the rise

Many countries continue to grapple with issues related to disinformation, consumer protection and fraud, all while responding to public demands for greater data privacy. Some markets are witnessing a growing backlash against and retreat from using social media platforms that harness personal data, especially among younger generations, even if inconsistencies remain between consumers' stated values and the exercise of their rights when faced with case-by-case opportunities to use services.

Growing awareness of the strategic implications of economic policy sequencing

Governments and corporations are also increasingly attentive to – and trying to address – the economic and strategic commercial issues surrounding data flows. Building blocks of the digital economy – cloud computing, artificial intelligence and big data analytics – are all dependent on and drive data flows that can be subject to sector specific and cross-cutting regulations and restrictions, as well as infrastructure initiatives. The pursuit of digital trade agreements, the application of data localisation requirements, mutual recognition in sector specific domains, and the application of concepts such as “fair use”¹ of personal data that would otherwise be subject to privacy or copyright, are areas that frame restrictions and conditions on data usage.

Not all data is equal

A sign of progress is a move away from generic discussion of data as an undifferentiated body of personal or corporate data. A recent example emerges in the clarifications provided in April 2024 in China about the notion of “important data” laid out in the Provisions on Facilitating and Standardizing Cross-Border Data Flow². However, while greater specificity may help to ease restrictions in some areas, it also heightens complexity and multiplies the burden of rule-making process and of the analysis and monitoring functions that companies and governments need to undertake. The net effect on firms seeking to introduce innovations or simply assure compliance of existing business operations will need to be monitored closely.

Growth of digital business models and internationalisation

New technology adoption is pushing markets towards ever wider and deeper pools of data becoming commonplace enablers, if not drivers of innovation and commerce. The varied and nuanced ways in which data –

1 See for instance guidelines on its application in Singapore: <https://insightplus.bakermckenzie.com/bm/data-technology/singapore-pdpc-releases-advisory-guidelines-on-the-use-of-personal-data-in-ai-recommendation-and-decision-systems>

2 See for instance <https://insightplus.bakermckenzie.com/bm/data-technology/china-new-rules-to-facilitate-and-standardize-cross-border-transfer-of-data-outside-china>

personal data, business data, meta-data, copyrights as well as other immaterial rights – are being analysed, manipulated, managed, is increasing. Growth of adoption is still slow and uneven, with uptake more prevalent in advanced markets, by larger firms, and wealthier and more educated households (OECD 2024).

Data-driven businesses essential for more inclusive growth and innovation

Data-driven business models can be instrumental in driving efficiency gains across a wide range of industries and services, and can be a vector for greater inclusion. But this is not necessarily playing out. Network effects have enabled a handful of platforms to concentrate economic activity and market power at an unprecedented global level. While this has led to a material increase in access and participation of consumers and SMEs across the world, there is a growing sense that dominant platforms' control over data is slowing the flow of data towards the next wave of innovators and business models required for growth.

Interventionist competition and digital market policies

Policy measures are coming into place that reduce the concentration of market power or control of data in the hands of a few dominant platforms or gateways. Legislative measures such as those to promote open finance or those embodied in data market acts are designed to accord greater legal and operational rights to consumers and businesses over their own data; national infrastructures and digital public goods, such as the Hong Kong Commercial Data Exchange, ONDC in India, or identity data wallet are examples of interventionist policy initiatives to facilitate data access and usage through more market oriented means. Governments are engaging with market participants to inform the design of effective, meaningful levers to exercise their public role in the governance of platforms and data. The public sector is setting up new foundations for identity and access, demanding private sector players to split functions previously imperceptibly intertwined into siloed services. Some of the new foundations are going to be industry led and owned, others government run, and still others through public-private organisations³.

Digital Public Infrastructure goes international

Initiatives also exist already to help expand different flavours and architectures of data sharing. Under the broad and still evolving concept of Digital Public Infrastructure or Digital Markets, cross-border data flows are also gradually being addressed. Important efforts include a growing array of initiatives including: the G7 “Data Free Flow with Trust” (DFFT) initiative, elements in bilateral digital trade agreements to enhance extra-territorial access to data services⁴, adoption of the MLETR, the ICC-Digital Standards initiative, projects led by the Bank for International Settlements' Innovation Hubs, including Project Aperta⁵, and initiatives sparked by the G20 position on Digital Public Infrastructure and aligned with the vision of the Finternet to pursue an orderly integration of distributed ledgers and tokenization into the world of financial and real-world assets and cross border trade⁶. Institutions such as GLEIF also play a role as part of a 'pre-nascent' array of international digital public infrastructures.

³ This includes well developed semi-public infrastructures, such as in India where solutions for identity and payments have revolutionized access to and participation in digital services; in Europe, there is a combination of competition policy measures, soft infrastructures for digital (natural person) identity (eIDAS2), a suite of measures around 4 key pillars: (i) cross-sectoral governance framework for data access and usage, including the development of the EU Data Act and the work on creating EU Data Spaces, (ii) Investments in data and strengthening Europe's capabilities and infrastructures for hosting, processing and using data, interoperability, (iii) Capacity building, especially for consumers and SMEs, and (iv) Common European data spaces in strategic sectors and domains of public interest. In Australia, the Consumer Data Right approach has a cross-sectoral approach to data consent and mobilization. There are important examples in other jurisdictions and initiatives also specific to legacy infrastructures such as credit and asset registries

⁴ see for instance the Digital Partnership agreements between Singapore and Australia and the Digital Economic Partnership Agreement between Chile, New Zealand and Singapore as well as bilateral agreements between Japan and the EU or Japan and the United Kingdom.

⁵ https://www.bis.org/about/bisih/topics/open_finance/aperta.htm

⁶ see <https://finternetlab.io/>

Market participants and stakeholders need to proactively look beyond the principles and texts to address the fundamentals. As one participant noted, *“Even if we generally agree on very global principles and can refer back to them, we also need to understand the different political objectives [driving regulation] and speak to them. That requires a lot of talk with local government”*. Noting also that *“it’s pretty overwhelming as an SME to even try to do trading across borders”*, the roundtable discussion emphasised that the asymmetric distribution of capacity to address challenges and the potential gains from lower barriers to trade and data flows puts an onus on the industry, in particular the larger global institutions within it, to better address these challenges.

Forums and institutions charged with policy coordination are aware of the emerging tensions⁷. National members and stakeholders in inter-governmental bodies and industry institutions have recognised and started taking steps to resolve conflicting policy aims and strike a better balance between the interests of economic development, privacy, security and sector specific goals such as preserving the integrity and stability of financial infrastructures⁸. Since the PZF roundtable, the FSB published a consultation report to communicate recommendations to promote alignment and interoperability across data frameworks related to cross-border payments⁹.

A new phase of market developments in trade

Data flow and its central role in trade and finance

The roundtable focused on the role of data in supporting cross-border finance and payments. This is one very specific, albeit critical, domain in which hurdles to cross-border data flow need to be addressed to benefit from innovations in the digital economy, ensure they lead to more inclusion and reverse the trend of concentration of market power. This roundtable took stock of the market level and commercial forces, as well as the status of efforts to facilitate interoperability and digitisation of the data needed to reduce barriers to and transaction costs of trade and their corresponding financing and payment processes.

Out of the ashes, incremental advances

Sometimes, you must pursue models that you know cannot scale. Many high-profile cross-border trade digitisation schemes have been phased out as they failed to reach scale, but not without transferring some momentum to different tactics and realisations that constitute an oblique step forward, while fostering a common understanding of barriers to scale. There is now a growing mutual recognition of the key challenges that need to be addressed to develop more interoperable frameworks and perhaps more realism about the time and complexity involved.

⁷ Key inter-governmental and transnational bodies involved in this area of policy include notably the OECD, the Financial Stability Board (FSB) and the Committee on Payments and Market Infrastructures (CPMI), the G20 and the G7 (notably through the creation of the DFFT and its coordination with OECD), the Financial Action Task Force (FATF), the Global Privacy Assembly (GPA) and regional organisations such as the Asia Pacific Economic Council (APEC)

⁸ See references in the end notes to key documents and insights notes from preceding Elevandi forums covering DFFT.

⁹ <https://www.fsb.org/wp-content/uploads/P16072-1.pdf>

No single “model to rule them all”

In trade and trade finance alone, stakeholders consider the problem has such scale that it is not possible to address holistically, and especially not through a linear transformation towards closed loops. “Closed loop platforms that rely on getting all the transactions inside them for their business model have held us back,” said a participant.

Especially given that stakeholders, institutions and existing commercial forces are fragmented across national borders, many initiatives have only been able to try to solve for part of the problem. We are forced to go through a step-by-step process of aligning different elements of the ecosystem. Often, this is difficult to orchestrate in a fully sequential manner. We have now made progress on some elements, in part thanks to those large-scale initiatives that have 'failed'.

Standards: Necessary but not sufficient

Data standards and taxonomies are easing the flow of data while still enabling counterparties to rely on and apply it. But common standards alone are not sufficient for enhancing the free flow of data. Even when we do agree on intent, the road to adoption is long.

Data is knowledge; knowledge is power

Another challenge called out by stakeholders is the strategic consequences of ceding control of their data. Companies holding data can be concerned that they are giving up control of an important asset without getting anything (or enough) in return, or worse, that it enables new networks or data platforms to develop market powers that eventually are to their disadvantage. In the short term, even sharing meta data via platforms with other companies can reveal valuable information. One participant emphasised that “sharing information with competitors was a huge issue for some projects” so that even if the near-term commercial implications are often unclear, it can dissuade companies from engaging in new data sharing arrangements.

Challenges of governing non-statal open market frameworks

The governance of data access arrangements is also a crucial issue. Proprietary platforms have their own commercial incentives; user-owned and managed platforms can help to align interests among incumbents but can be cumbersome and ill adapted to changing market circumstances or addressing the needs of new entrants and smaller markets – the consequence is often that new entrants do not get served. Governments' roles in new data sharing infrastructures are also not trouble free, especially as their mandates and accountability are inherently at odds with transnational access. Ledgers and blockchains had been seen initially by some as mechanisms to proceed with decentralised data sharing. But while tokenisation can shift voting power and access to users, it does not resolve governance issues and can even create new challenges for transparency and enforcement that need to be addressed at least indirectly through national authorities, legal frameworks and actions via multi-lateral organisations¹⁰.

¹⁰ Some useful insights into governance issues within the connected subject of Decentralised Finance can be found in this article from the ECB: https://www.ecb.europa.eu/press/financial-stability-publications/macprudential-bulletin/focus/2022/html/ecb.mpbu202207_focus1.en.html

“When I hear the word 'complexity' I think money and cost – also for the economy”

Participants noted that there has been a consistent tendency to underestimate the time it takes to pursue complex transformations. This leads to costs for participants, and costs in lost opportunities for the economy. Many of the companies trying to spearhead change are the ones that are the least well-endowed with the finances and stability needed to stay the course. This adds up to many initiatives being under-resourced and taking even longer. The impact weighs most heavily on the innovators and the originators of data that we are locking up (or down). Even entrepreneurs with the best ideas for solving business challenges will not succeed in a market without a conducive framework to support them.

Vision, workarounds & incremental actions

Re-locating the north star in a complex and changing landscape

Experimentation, market growth and failures along the way have nourished our collective understanding of the issues and provided for more nuanced definition of what realistic objectives look like; and as initiatives mature, we often find it necessary to remind ourselves of what we are aiming for, re-setting the goals or locating again the 'North Star' by which we orient our collective efforts. A notable vision expressed in the roundtable was that *“Data should be generated within the supply chain by legitimate owners, tagged, verified using tech like IoT and shared multiple times down the chain instead of manifest on documents and then copied and pasted”*, losing their provenance and the links that underpin trust in the data and its integrity. Many of the workarounds and experiments with longer term potential align with this broader vision.

Understanding the costs of inaction, the contours of their distribution

Industry and government sponsored actors share a common understanding that legal uncertainties and divergence is a tax on innovation, or a speed bump that weight most heavily on innovators, SMEs and many of the markets that tend to be less often present in forums and initiatives to address data and trades. Many projects that could be valuable are stopped before they even get off the drawing board. Legal risks and uncertainties may be flagged early on by internal units; and most SMEs lack the capacity to navigate the complex web or requirements and risks that come with international trade. It is notable and significant that larger firms and stakeholders recognise that the interests of innovation, smaller markets and SMEs are poorly served by the existing arrangements.

Revisiting the actual economics of data

The value of data and its economics need to be reinserted into the debate as misleading analogies deflect our attention from noting how value in data is produced and enhanced, and to whom it belongs¹¹. It is not a resource (like oil) that becomes depleted but is a non-rival good that often increases through positive externalities when it is further used, combined and enhanced. It generates value by being used but simply through its option value. At

11 See for instance academic and applied debates on conceptual approaches to the value of data and its integration into national accounts: https://goingdigital.oecd.org/data/notes/No20_ToolkitNote_MeasuringtheValueofData.pdf; there are also evolving debates how to treat data as an economic asset and the practicalities and drawbacks of applying concepts from property law to it (see for instance Schneider, Ingrid (2023): Digital Sovereignty and Governance in the Data Economy: Data Trusteeship Instead of Property Rights on Data

least part of its value derives and should be accrued by its originators. But we must also recognise that sometimes, access to it can and should be excluded or at least controlled. We have a poor understanding of how the costs of producing and accessing evolve in different configurations and recognise that individuals can profess a preference for privacy but act very differently when faced with individual trade-offs. If we are to mobilise market forces to enhance data free flow, we need to enhance our understanding of these different contexts and dynamics that shape use and flow of data.

Surfacing and addressing strategic dynamics and disincentives

One has to consider why many markets and smaller players remain sceptical or are reticent to collaborate. Alongside the firm level economics of data, some discussion in the roundtable pointed towards the asynchronous incentives of market development and data sharing. The timing and sequencing of who shares what data (or meta-data) is not neutral. Some firms are concerned that they are being asked to share private, proprietary data with new actors that could exploit it in ways that change markets structures, making it at odds with the interests of the data providers. Countries too are conscious of the option value of data in the aggregate and may hesitate to open up unilaterally or in sync with other countries. None of the market or regulatory approaches to data sharing are neutral in their actual impact on markets and players and so, even if the calculations made by stakeholders are still fuzzy or opaque, failure to acknowledge and address them more openly could be frustrating collective attempts to find a better trade-off between protections and innovation.

Markets find workarounds

Discrete data handing practices are already being used and new approaches tested. Some short examples noted here provide a flavour of the workarounds that may not only be helpful in the short term but may also point towards reforms and guidance that could lead to more efficient trade-offs between competing policy aims.

- **Collecting and packaging SME data**

Initiatives such as the Hong Kong-based Commercial Data Exchange (CDI) illustrates a combination of centralised data collection with permissioned-based architectures that allow SMEs themselves to explicitly and in a granular manner share access and facilitate the flow of data.

- **Tokenization**

Data does not have to be shared or transferred across borders if controlled. Discrete access can be provided through tools such as tokenization. Privacy enhancing methods using tokenization are being embedded into many initiatives, in particular complementing ledger-based financial infrastructures to ease cross-border trade and payments while decentralising data related to transactions.

- **Anonymisation of data for insights**

Many market participants are regularly anonymising underlying data and using derived and meta data for driving insights and analysis without the need to transfer data, subject to privacy protections across borders.

▪ Short-term data permissions

Temporary data access and transfers were also cited as mechanisms being used by market participants to facilitate specific, legitimate business operations. Data is required to be erased within a limited timeframe, such as 24 hours, to address the overall aims of data protection and privacy rules.

Incremental and multilateral actions

“We need something multilateral”

Roundtable discussion underlined support for putting in place arrangements to further design and test new collaborative architectures around real world use cases. Participants acknowledged that initiatives need strong project sponsors, coalitions and catalysts to get off the ground and move more swiftly from concepts to practical engagements that can generate common insights and convictions that lead to incremental improvements and impact. Key concepts, aims and initiatives on the near-term horizon are outlined below.

'Schrödinger's Cat?' – enhancing clarity and transparency of current rules and obligations

The state of rulemaking, its interpretation and enforcement, gives the impression that data rules can be in many places at once and their precise locale is influenced by the nature of the observer. Rulemaking and the market practices to which it applies are evolving quickly. Hence, there is substantial value even in 'simply' helping market participants identify and navigate through the current laws, rules, regulations and other obligations with which companies need to comply when accessing or moving data across borders. Tools to compare rule across domains (e.g. between finance, and data protection, between sector-specific rules for sanctions or healthcare or media) and an ability to animate cross-border regulatory debates with the clear reference to texts is valuable. We cannot progress practical debate by having inconsistent understanding or perception of the underlying strata of data practices and rules. The OECD support for DFFT includes building practical foundation to enhance clarity and transparency of current obligations.

A policy patchwork awaiting stitching

There is a multitude of well-intended initiatives led by national, multi-country and multi-lateral institutional approaches. Market participants highlight the need and challenge of trying to navigate the interplay of different authorities and their respective rules. We need to begin piecing them together. A good starting point is that counterparties clearly recognise the overlaps and intersections, and the need for coordination. Making this happen within the institutional mandates and confines we have is more difficult.

Connecting existing consent-based arrangements

Another nascent initiative is to connect existing open finance ecosystems. The BIS Innovation Hub Project Aperta will work with five jurisdictions (Hong Kong, the U.K., Singapore, the UAE and Brazil) to create connections among ecosystems in which users and data subjects provide consent-based access to data not just in a domestic setting, but also across cross-border transfers and access.

Providing new venues

Neutral venues and joint projects can provide common ground for different institutions to come together. The FSB recently put out a consultation paper positing the creation of a “Forum” combining the insights and roles of the OECD, FATF and the GPA with that of the FSB to promote collaboration on policymaking and to “identify and discuss practical ways of mitigating frictions”, implicitly also providing a mechanism to spur or facilitate practical, hands-on analysis and experimentation of ideas and approaches.

Contributors

Author:**Ivan Mortimer-Schutts**

Ivan is a financial and digital sector development and policy expert. He has been a staff member of IFC, a member of the World Bank Group for many years, based in Asia advising regulators, investors and private sector companies on financial and digital sector policy, innovation and investments. Before IFC, he held positions with BNP Paribas in emerging markets business development and securities regulation, a joint Sciences-Po and AEI-Brooking think tank on trade and regulatory policy as well as with financial securities intermediaries in Europe

Lav Odorovic

Lav is a serial fintech entrepreneur. He previously built Penta, a neobank in Germany serving SMEs under the license of Solarisbank. Lav is the CEO and co-founder of Relio, a Swiss financial institution offering payment accounts to legal entities in Switzerland and abroad. He also serves as the Honorary Representative of the Serbian Chamber of Commerce in Switzerland.

Liew Ming En

Editor

Production:**Sachin Kharchane**

Designer

To access more reports, scan the QR code below:



References

OECD G7 Data Free Flow with Trust

At the 2023 meeting in Hiroshima, [G7 Digital and Tech Ministers Meeting](#) governments affirmed their commitment to enhance cross-border Data Free-Flow with Trust (DFFT) and the need for tangible progress on advancing it; to that end they agreed to operationalise it through a new Institutional Arrangement for Partnership (IAP). The OECD has taken up this role and published background and policy discussion documents setting out aims, challenges and potential approaches:

- [Moving forward on data free flow with trust – New evidence and analysis of business experiences](#) / This report uses business consultations to investigate private-sector views on privacy and data protection rules for cross-border data flows

G20 Roadmap for Enhancing Cross-border Payments

Data is central to cross-border financial and payment systems reforms including the CPMI Roadmap in which Action 7 aims to “*enhance the interaction between data frameworks and cross-border payments*”. As they concur, “the transfer of data across borders is essential to the functioning of the cross-border payments ecosystem but depends on several national and regional data frameworks with different purposes and characteristics, ranging from data protection to data localisation and AML/CFT data requirements”. The most recent update to the workplan for Action 7 develops around two main workstreams: (i) further in-depth analysis of frictions created by data frameworks; and (ii) engagement with industry and relevant Authorities and standard-setting bodies. A recent (July 2024) FSB consultation paper was issued, setting out

- [Recommendations to Promote Alignment and Interoperability Across Data Frameworks Related to Cross-border Payments Consultation report](#)

ICC Digital Standards Initiative

An ICC DSI report summarises the outcomes of a working group on Trusted Technology Environments. Their work put a focus on issues of authentication, verification and security, while seeking to remain neutral with regard to the choice of technology and vendor/platform, and be inclusive of organisations regardless of their level of technological maturity.

- Trust in Trade | [Verifiable Trust: A foundational digital layer underpinning the physical, financial, and information supply chain](#)

Application of Digital Economy Semi-Fungible Token

An example raised in the roundtable concern the initiative of the Central Bank of Ghana, which has partnered with the Monetary Authority of Singapore on the Project Digital Economy Semi-Fungible Token ([DESFT](#)) to introduce Universal Trusted Credentials (UTCs), a Central Bank Digital Currency (CBDC), a stablecoin, a dedicated trade marketplace, and an escrow arrangement. This suite of solutions is designed to ensure that payments are securely processed following the successful verification of digital credentials and the fulfilment of trade agreements.