

Fostering an Enabling Policy Environment for Data-Utilizing Businesses: AI, payments, encryption, and accounting/tax services

Nigel Cory
Associate Director, Trade Policy, ITIF

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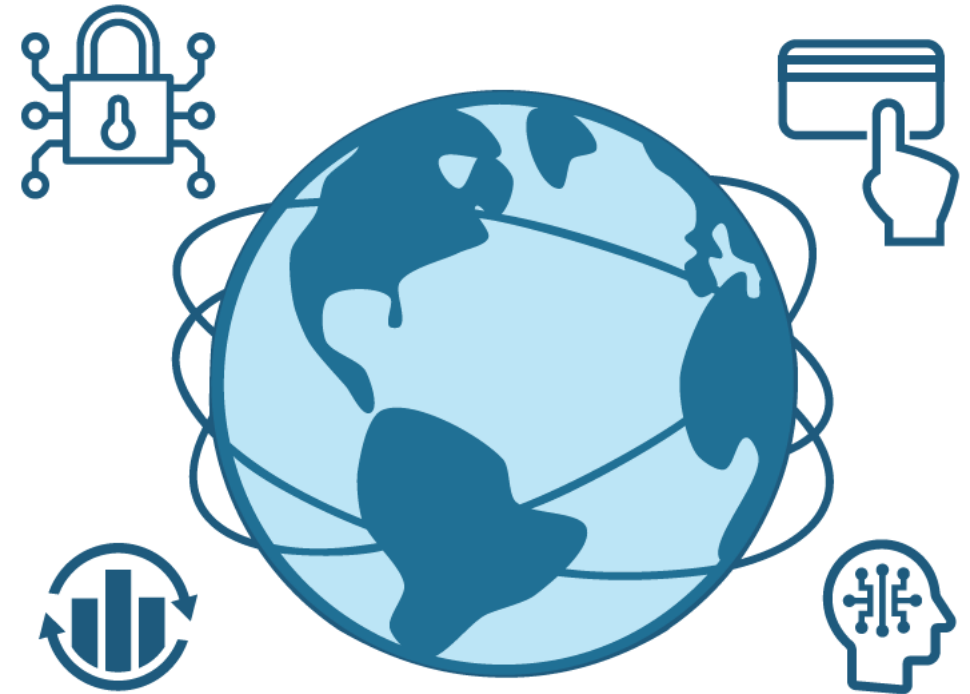
@Nigelcory
ncory@itif.org

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 - Trade and globalization
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- Formulates and promotes policy solutions that accelerate innovation and boost productivity to spur growth, opportunity, and progress
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Overview

- Payment Services and Digital Trade
- Encryption Services and Digital Trade
- Electronic Invoices and Digital Trade
- Artificial Intelligence and Digital Trade
- Conclusion:
 - From the Firm and Policymaker's Viewpoint
 - For the Future of Digital Trade Policy



Payment Services and Digital Trade

- Tech and market changes: Incumbent payment services vs.

The logo for 'fi paytm' features the letters 'fi' in a small, light blue font to the left of the word 'paytm' in a bold, blue, sans-serif font.The logo for 'GO PAY' consists of the word 'GO' in black, followed by a blue icon of a wallet with a card, and the word 'PAY' in black.The logo for 'true money wallet' features a stylized 'W' made of red and orange geometric shapes above the text 'true money' in orange and 'wallet' in black.The logo for 'Mynt' includes the word 'Mynt' in a bold, black, sans-serif font, with a green and black icon of a hand holding a smartphone to the right. Below the word is the tagline 'A FRESH LOOK AT MONEY' in a smaller, green font.The logo for 'toss' features a blue speech bubble icon to the left of the word 'toss' in a bold, blue, sans-serif font.

- Firm A: U.S.-based global multinational financial services firm.
- Payment services and digital trade are inseparable: but restricted.
 - ITC survey: 23 percent of 2,200 MSME respondents from more than 100 economies identified e-payment services as a major obstacle.

Payment Services, Data Use/Flow, & Barriers

- Data is central: payment networks clear and settle transaction information, not funds.
- Data restrictions on a sliding scale of impact
 - Mirroring of data => full and only local data storage => local data processing and routing.
 - Acts as market barrier & discriminates against foreign firms, especially SMEs.
- E.g. Indonesia, Russia, India, Viet Nam, and elsewhere.



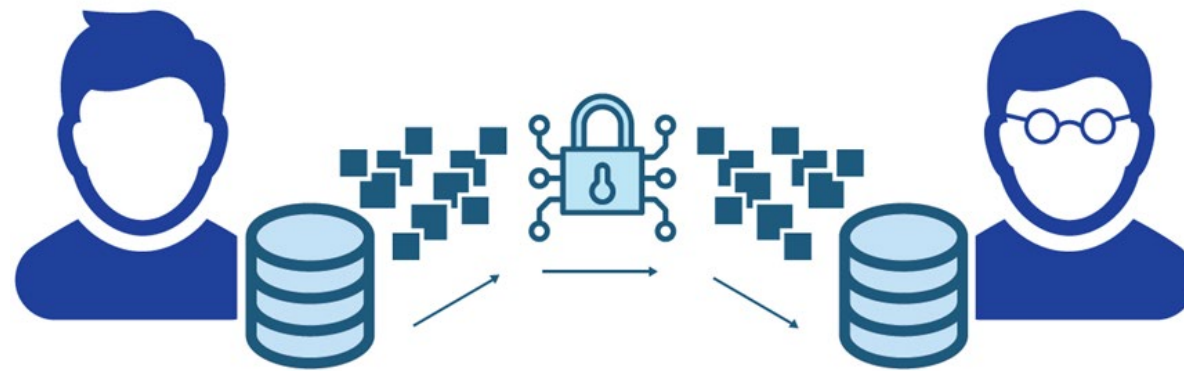
Impact of Restrictions on Payment Services Data

- Limits use of globally distributed data analytics platforms
 - Cost/technical feasibility of pulling down global platform to local IT ecosystem.
- Impacts:
 - Less innovation: Firm A uses diverse data sets to drive innovation.
 - Security risks: Firm A needs global data to fight money laundering & fraud.
 - Lower firm competitiveness and economic productivity:
Prevents access to best and lowest cost provider.



Digital Trade and Encryption: An Overview

- Encryption is ubiquitous to digital trade:
 - It protects security/confidentiality of data and services.
- Firm: U.S.-based Virtru provides client-side encryption services.
- Protection, flow, and use of data is critical to Virtru's business model.



Digital Trade and Encryption: Policy

- Constructive policy: Economies require firms use “technical measures” to protect sensitive data to mitigate data protection concerns.

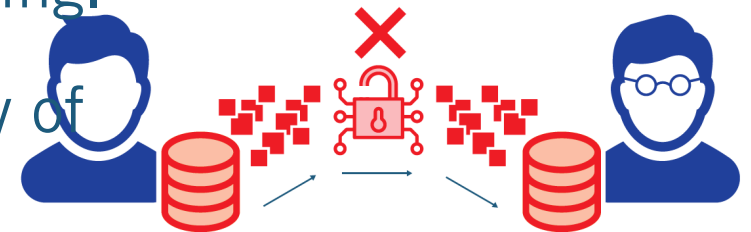


- E.g. European Union’s GDPR, health & payment data in United States

- Policy that undermines encryption:

- Local key & data storage, source code disclosure, backdoors/tech assistance, & discriminatory licensing.

- Undermine core functionality and integrity/security of encryption services.



Electronic Invoicing (EI) and Digital Trade: Overview

- Many benefits to EIs:
 - Support traditional/digital trade. E.g. more efficient ‘factoring.’
 - Efforts to combat fraudulent activities and improve tax and other business services.
- Firm: Chile-based GoSocket
 - Uses cloud-based services to operate across Latin America.
 - Over 20,000 firms processing 5 million EIs daily.



Electronic Invoicing: Legal/Regulatory Issues



- EIs involve data, data flows, and cybersecurity issues.
 - E.g. e-signatures and certificates to certify parties and protect integrity/security of EIs.
- Economy-specific technical requirements undermine cloud-based EI services.
 - Brazil: Use of local tech standard and local IT services for e-signatures.
 - Mexico: Until recently, required local storage of digital certificate, which equals de facto data localization.

Electronic Invoicing: Impact and Solution

- Mexico made the smart correction:
 - Allowed providers to use cloud-based hardware security modules, which use best-in-class, audited/certified cybersecurity measures.
- GoSocket example shows:
 - Behind-the-border technical measures can act as barrier to cross-border data flows, service provisions, and use of best-in-class security tools.
 - Need for holistic assessment and cybersecurity expertise in policymaking.

AI and Digital Trade: The Firms

- Mindbridge Ai is based in Ottawa, Canada.



- Uses AI/ML to investigate/audit past activity, detect active inadmissible behavior (e.g., fraud), and prevent potential transgressions

- Pondera Lab is based in Mexico City, Mexico.



- Uses AI/ML to help firms and government agencies use AI to better organize, analyze, and visualize data to help make better business decisions.

- Certn is based in Victoria and Toronto, Canada



- Uses AI/ML to help clients analyze prospective customers, employees, and renters.

Use of Data and Key Data-Related Policy

- As Certn put it: “business is data.” Same for all.
 - But for each firm, the source and use of data is different.
 - Collected or provided or mixed data sets; structured vs. unstructured; hosted on home cloud services or access provided to client’s data provider.
- Two sets of rules that affect use of AI for digital trade
 - the rules on data; and
 - source code protection.



AI and Data Privacy/Protection

- Key point: Privacy regulations are central
 - All firms carefully consider data-related laws before entering a market.
 - Mindbridge Ai = built to “high watermark” of EU GDPR, in part, due to threat of major fines.
 - Certn = made up-front investment to help it be GDPR compliant. Also has to abide by province-level data localization in Canada.
- Firms (like Mindbridge Ai) operate from cloud services in key markets (Canada, US, and EU).

AI and Digital Trade:

- Privacy/data protection is competitive advantage.
- Formal laws only one piece of the puzzle:
 - Clients use contractual law to ensure additional legal protections:
 - E.g. where to store data and how to manage access to the data.
 - Firm itself demands additional steps above and beyond the law:
 - E.g. Additional technical and administrative controls.
 - E.g. Third-party auditing/certification services.

Protecting AI

- Source code of AI/ML is susceptible to exposure and theft.
- Multiple methods:
 - Source code protections (domestic laws, trade provisions (USMCA));
 - The use of strict contractual arrangements;
 - Strict control over AI development process; and
 - The use of technical and administrative controls to manage access and use.
- Many firms: refuse to enter and upload AI systems to cloud service providers in certain markets due to risks.

Conclusion: From the Firm's Perspective

- The optimal scale of a digital firm is global.
 - E.g. AI systems were designed for the cloud.
- Importance of economies of scale to digital businesses.
 - Core vs. non-core markets: Firms weigh up cost and complexity involved in tailoring (often global) IT systems for local conditions.
 - Sum of multiple minor regulatory differences/changes can add up and equal major barrier to digital trade.
- Unnecessary/overly restrictive artificial barriers prevent this.
 - Impact can be direct and indirect (customer risk aversion).

Conclusions: For Policymakers

- Policymakers challenge:
 - Grasping the challenges of today's data/AI-driven economy.
 - Understanding technology and intersection with policy issues.
 - E.g. Data localization \neq data security. Data protection can flow with data.
 - Identify policy best-practices and the need to balance competing goals, such as consumer privacy, productivity, and innovation.
 - E.g. APEC's CBPR ensures data protection flows with the data, wherever it is stored.
 - E.g. Policies that encourage firms to use encryption and cloud-based cybersecurity measures.

Overall Conclusions for Digital Trade Policy

- The critical role of data and digital technologies and services.
- Future of trade policy:
 - Central role of data means future trade policy will likely focus on these points of friction and/or bridges for interoperability.
 - Potential for long-term divergence: Interoperability vs. fragmentation.
 - Which norm prevails will play a part in determining the impact of AI and other data-driven technologies in driving economic productivity and innovation.

Thank You!

Nigel Cory | ncory@itif.org | @nigelcory