Global Commission on Internet Governance

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Addressing the Impact of Data Location Regulation in Financial Services

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ABOUT THE GLOBAL COMMISSION ON INTERNET GOVERNANCE

The Global Commission on Internet Governance was established in January 2014 to articulate and advance a strategic vision for the future of Internet governance. The two-year project conducts and supports independent research on Internet-related dimensions of global public policy, culminating in an official commission report that will articulate concrete policy recommendations for the future of Internet governance. These recommendations will address concerns about the stability, interoperability, security and resilience of the Internet ecosystem.

Launched by two independent global think tanks, the Centre for International Governance Innovation (CIGI) and Chatham House, the Global Commission on Internet Governance will help educate the wider public on the most effective ways to promote Internet access, while simultaneously championing the principles of freedom of expression and the free flow of ideas over the Internet.

The Global Commission on Internet Governance will focus on four key themes:

- enhancing governance legitimacy — including regulatory approaches and standards;
- stimulating economic innovation and growth — including critical Internet resources, infrastructure and competition policy;
- ensuring human rights online — including establishing the principle of technological neutrality for human rights, privacy and free expression; and
- avoiding systemic risk — including establishing norms regarding state conduct, cybercrime cooperation and non-proliferation, confidence-building measures and disarmament issues.

The goal of the Global Commission on Internet Governance is two-fold. First, it will encourage globally inclusive public discussions on the future of Internet governance. Second, through its comprehensive policy-oriented report, and the subsequent promotion of this final report, the Global Commission on Internet Governance will communicate its findings with senior stakeholders at key Internet governance events.

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EXECUTIVE SUMMARY

Global financial institutions have leveraged the Internet to establish private communication networks and capture efficiencies from global technology. However, in recent years, many countries have issued data location rules restricting how corporations can handle and transmit their customers’ data across borders, including through these private networks.

Interviews with a dozen executives revealed that this increasing complexity in the regulatory environment is degrading the industry’s operational efficiencies. Global banks already operate in foreign countries at some disadvantage; their cost-to-income ratios are commonly five to 30 percent higher than national banks. Many banks are now devoting resources to interpret these regulations (in some cases creating repositories of thousands of regulations), investing in technology to accommodate them, and even considering exiting some markets. These steps are raising costs for banks (for example, one bank that had to build a data centre raised its cost-to-income ratio by three percentage points) — and might slow the expansion of financial services in developing economies.

A range of actions for financial institutions to better adapt to the newly complex environment are recommended, such as incorporating data location in their country-level strategies, and considering ways to work together as a sector. Policy makers might consider developing an understanding of the economic cost of these types of regulations and ensuring consistency in their application.

INTRODUCTION

A free, global and open Internet has driven tremendous innovation and provided enormous value over the past decade. Financial institutions have used the Internet to establish private communication networks that effectively support their heavy volume of online transactions. This is particularly true of larger firms, which are pushing to globalize their operating models and technology platforms. Global platforms connected by private networks allow banks to provide their best products in all markets, manage risks globally, innovate efficiently and ensure a seamless experience for customers. The advent of sophisticated mobile platforms promises to make all markets, manage risks globally, innovate efficiently and ensure a seamless experience for customers. The advent of sophisticated mobile platforms promises to make all sorts of household and corporate financial management even smoother and more intuitive. Consumers can check balances, make payments and oversee their investment portfolios. Corporations can manage cash positions around the world using increasingly sophisticated online tools.

Recently, countries in every part of the world have issued rules about how corporations must handle their customers’ data, including its transmission across borders through the Internet and private networks. Typical motivations for these rules are prevention of cybercrime, protection of citizens’ privacy and promotion of the local economy by enforcing job creation. Given recent concerns about data security and privacy, implementation of these regulations has accelerated. In some cases, countries have started to discuss creating their own internets — an emerging phenomenon often referred to as the “splinternet”1 — through which they would have much more control over the nature of online transactions.

The implications of this new wave of data location regulation are particularly significant for banking. The financial industry has historically been heavily regulated in many ways, such as products offered or capital requirements. As more banking activities, such as data management, come under regulatory scrutiny, the effects are uncertain, but seem likely to be material. In order to provide a context for discussions of governance of the Internet and cyberspace more broadly, executives at a dozen global financial institutions were interviewed and asked about how this complex regulatory environment is affecting financial organizations.

The interviews revealed several implications for banks and, more broadly, markets for financial services. Increasing data location regulations may cause banks to exit some markets, leaving customers in those countries with reduced options for financial services. Those banks that choose to stay can mitigate the impact of data location regulations with investments that make their technology platforms more modular and flexible. For policy makers, understanding the impact on consumers and, where possible, mandating outcomes rather than specific technology configurations, can avoid or limit any unintended consequences for consumers’ access to financial services.

THE VARIETY OF REGULATIONS IS WIDE AND COMPLEX

Countries are creating a wide variety of data location requirements that impose restrictions on the content that has traditionally been transmitted through the Internet (or private networks). These have different implications for the ways that financial institutions manage data. Executives highlighted four main categories of emerging regulations, from most to least stringent:

- Geographical restrictions on data export, which require data to be stored and processed within the country (i.e., “data copy cannot leave”). This can force institutions to create separate infrastructure, computing capabilities and teams. Examples include

1 Splinternet is defined as “a characterization of the Internet as splintering and dividing due to various factors, such as technology, commerce, politics, nationalism, religion, and interests.” See http://en.wikipedia.org/wiki/Splinternet.
South Korea, which prohibits the export of customer data, and Egypt, which requires banks to keep all information on their government customers within the country.

- **Geographical restrictions on data location**, which allow data to be copied outside of the country for processing, but require a replica in the local infrastructure (i.e., “data copy must stay”). These are, in most cases, motivated by an intention to develop the internal economy. Indonesia and Malaysia are among the countries that do this.

- **Permission-based regulations**, which require institutions to gain consent from individuals for data transmission. For example, Brazil and Argentina require banks to get a customer’s explicit written approval to transfer their data. Switzerland and Luxembourg empower customers to prohibit banks from sending their data across the border.

- **Standards-based regulations**, which allow institutions to move data freely outside of the jurisdiction, but require them to take steps to ensure the security and privacy of customer data.

Independently of these levels of stringency, countries can have very different levels of coherence and clarity in their regulatory regimes.

On one hand, these regulations are almost all national rules; as such, they are highly variable — and even contradictory — between jurisdictions. In some cases, multiple jurisdictions may govern the same data set, and it may be impossible to comply with all mandates. For instance, the United States has protocols on anti-money laundering (AML) and suspicious activity reporting (SAR). To succeed, the protocols must be applied globally, but data location regulations in many countries hinder the necessary exchange of information. Regulations such as the Republic of Korea’s privacy requirements, Spain’s Data Protection Law and even the United States’ own Gramm-Leach-Bliley Act and Non-Public Personal Information Act stand in the way of successful application of AML and SAR protocols.

On the other hand, executives reported that they have severe difficulties gaining a clear and comprehensive view of the full set of regulations. Many are worded so vaguely that it is impossible, they say, to predict what is and is not allowable. In some countries, regulators have given different answers to different institutions, making it difficult to find relevant precedents. Among the concerns they expressed were the following:

- A country’s regulations can be worded vaguely (for example, no clear definition of some key terms).
- Some countries lack explicit rules for banks to seek approval of offshore support, leading executives to believe that institutions in the same circumstances receive different treatment.

In fairness, the rules in many countries are still under development. But that only adds to the problem: the uncertain environment makes it particularly difficult to plan and execute large technology investments. Some countries require a number of approvals for an individual compliance project, making it difficult for institutions to plan ahead, and risking delays and significant sunk costs if approvals are not forthcoming.

Institutions will need to live for a decade or more with the implications of the data architecture decisions that they make today. That fact is fundamentally disconnected from the uncertain and variable regulatory rules they now face. Moreover, new technology models may outpace regulations put in place just a few years ago. For instance, several executives said that there is a basic disconnect between cloud computing and the regulatory frameworks in many countries.

**EFFECTS ON BUSINESS FALL ALONG A CONTINUUM**

Almost all the executives interviewed said that data location requirements are complicating their long-standing strategies to consolidate technology platforms and business operations on a regional, if not global, basis. Otherwise, though, the requirements affect institutions and countries differently, with the impact falling along a continuum (listed below from low to high impact).

- **Increased organizational complexity to manage**. The complexity of dealing with data location regulations adds another challenge for managers to overcome. However, this complexity does not fundamentally alter business economics at a country or enterprise level.

- **Lower efficiency**. Data location regulations reduce efficiency by requiring institutions to retain people and technology in local markets that they otherwise would not require, reducing margins and resources available for reinvestment. The rules degrade a financial institution’s ability to provide service in a seamless way to customers across countries and regions. Banks doing business outside their home countries can face significantly higher costs than domestic banks (see Figure 1), in part because of local data location regulations and in part because of other causes, such as their typically smaller scale than local players. The role played by data location regulations is significant; a recent case study shows that the efficiency ratio of one bank’s foreign subsidiary fell by three percent when the bank had to create local data
infrastructure (see Figure 2). That was a significant blow, given the industry’s competitive margins in this country.

The debate over net neutrality began in the late 1990s in the United States. Since then, it has been gaining momentum in several fields, generating dichotomous positions between different sectors. As a contribution to the debate, this paper attempts to separate the unquestionable principles — such as the need to preserve the Internet as a space that is open to innovation, and the freedom of users to access content and services — from the dogmas and beliefs that are put forward in the name of neutrality, but which affect the sustainable development of the digital ecosystem.

Telecommunications networks and services and providers of content over the Net uphold the digital ecosystem, and it is essential that both can develop sustainably, with equivalent regulations and principles. This raises two important thoughts. First, it is important to promote investment, innovation and competition, preventing distortions through the relationships produced within the digital ecosystem. Second, the regulatory principles should be balanced between the different actors of the value chain. Meeting certain basic principles in favour of competition and against arbitrary discrimination would create the conditions for fostering the development of the digital ecosystem.

- **Reduction of the global footprint.** Data location regulations make some countries economically unattractive, causing institutions to exit, and limiting their global footprint. One bank is already in the process of exiting two countries. Another is considering exiting a country because staying in business there would require tens of millions of dollars in data centre investments.

- **Reduced access to financial services.** As banks reduce their operations due to an unfavourable environment, the expansion of financial services in those countries will slow. This is particularly concerning as the countries that are adopting a more stringent perspective in regulation have the most need to foster development (see Figure 3).

- **Challenges to global technology strategies.** Data location regulations may mean that banks’ long-standing plans for global consolidation of technology platforms are no longer viable, and they would need to rethink their data and technology architectures.

The extent to which a bank is subject to these effects depends on its business mix, technology strategy and the countries in which it operates. Wholesale banks that participate in a relatively small number of markets — with fewer customers and relatively flexible technology architectures — appear less concerned about data location regulations. They consider the issue to be just another type of complexity for them to manage. By contrast, retail financial institutions that participate in a large number of markets — with millions of customers and, often, monolithic technology architectures — are more affected.

**POTENTIAL ACTIONS FOR FINANCIAL INSTITUTIONS**

There is a range of potential actions financial institutions are considering that can reconcile burgeoning data location regulations with their business aspirations, and help them
make effective use of global digital opportunities (see Figure 4):

- **Devote the resources and expertise required to create transparency and insight** into data location regulations, across regulatory agencies and markets. For example, one bank created a database of more than 1,000 data location and privacy regulations for the markets in which it participated. In some cases, when banks have achieved detailed insight into local regulations, it can help reduce their economic impact. Over time, financial institutions may be able to create shared utilities to maintain common regulatory databases.

- **Incorporate impact of data location regulations into country-level strategies.** One financial institution is explicitly considering the cost of required local technology in regional business strategies, including market exits.

- **Accelerate efforts to develop more flexible technology platforms.** This will help banks reduce the economic impact of data location regulations. One bank increased the modularity of its application portfolio, which reduced the amount of supporting technology required to maintain data in each country. Another is considering using its private cloud infrastructure to shift workloads around more efficiently — this too will lower costs in countries with new data location requirements. Better technology can also offer the ancillary benefit of providing deeper insights into the bank’s customer base: for example, age breakdown of customers with over US$1 million in assets.

- **Consider working together as a sector to persuade regulators** that global operating models in financial services can benefit consumers by increasing the number of institutions competing for their business in each market. As part of this collective effort, the industry should make regulators comfortable that their national objectives will not be endangered by the presence of global models.

### POTENTIAL ACTIONS FOR REGULATORS

Policy makers should continue to seek the right balance between national policy concerns and enforcement of regulation that would reduce gains of scale of global institutions. They could consider the following steps:

- **Assess the economic cost of these regulations** by working with global firms (even beyond banking) to understand the full cost of accommodating the applicable location regulations.

- **Calibrate their application carefully** by identifying firms that are drastically affected by these regulations and developing alternatives that would achieve the same goal (for example, increased security, job creation).

- **Ensure consistency of application of regulation** by interacting with industry bodies to drive alignment between jurisdictions, investing in building capabilities of companies related to these regulations, and managing potential conflicts in regulation across regions.
CONCLUSION

Clearly, the impact of data location regulations on financial services is significant in terms of operational complexity and cost. But data location regulation policies are legitimate attempts to address valid national policy concerns. The right balance can be achieved only if policy makers understand the economic cost of these types of regulations, calibrate their application carefully and ensure consistency of their application.

Financial institutions will need to consider a broad range of actions to reconcile regulatory compliance with their aspirations to globalize operating models, deliver innovative products and continue to drive attractive economics. Beyond the requirements of local data regulation, financial institutions also need to demonstrate their own commitment to customer data security and privacy, which could turn out to be more restrictive than that of the countries they operate in. Demonstrating such commitment will strengthen their position in dealing with national authorities, as will appropriately balancing their business aspirations with a focus on consumer impact and ethical standards.
Global Commission on Internet Governance

The Global Commission on Internet Governance (GCIG) was established in January 2014 to articulate and advance a strategic vision for the future of Internet governance. The two-year project conducts and supports independent research on Internet-related dimensions of global public policy, culminating in an official commission report that will articulate concrete policy recommendations for the future of Internet governance. These recommendations will address concerns about the stability, interoperability, security and resilience of the Internet ecosystem. Launched by two independent global think tanks, the Centre for International Governance Innovation and Chatham House, the GCIG will help educate the wider public on the most effective ways to promote Internet access, while simultaneously championing the principles of freedom of expression and the free flow of ideas over the Internet.

Finding Common Ground
A Briefing Book Prepared for the Global Commission on Internet Governance

This briefing book contextualizes the current debate on the many challenges involved in Internet governance. These include: managing systemic risk — norms of state conduct, cybercrime and surveillance, as well as infrastructure protection and risk management; interconnection and economic development; and ensuring rights online — such as technological neutrality for human rights, privacy, the right to be forgotten and the right to Internet access.
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ABOUT CIGI

The Centre for International Governance Innovation is an independent, non-partisan think tank on international governance. Led by experienced practitioners and distinguished academics, CIGI supports research, forms networks, advances policy debate and generates ideas for multilateral governance improvements. Conducting an active agenda of research, events and publications, CIGI’s interdisciplinary work includes collaboration with policy, business and academic communities around the world.

CIGI’s current research programs focus on three themes: the global economy; global security & politics; and international law.

CIGI was founded in 2001 by Jim Balsillie, then co-CEO of Research In Motion (BlackBerry), and collaborates with and gratefully acknowledges support from a number of strategic partners, in particular the Government of Canada and the Government of Ontario.

Le CIGI a été fondé en 2001 par Jim Balsillie, qui était alors co-chef de la direction de Research In Motion (BlackBerry). Il collabore avec de nombreux partenaires stratégiques et exprime sa reconnaissance du soutien reçu de ceux-ci, notamment de l’appui reçu du gouvernement du Canada et de celui du gouvernement de l’Ontario.

For more information, please visit www.cigionline.org.

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Chatham House, the Royal Institute of International Affairs, is based in London. Chatham House’s mission is to be a world-leading source of independent analysis, informed debate and influential ideas on how to build a prosperous and secure world for all. The institute: engages governments, the private sector, civil society and its members in open debates and confidential discussions about significant developments in international affairs; produces independent and rigorous analysis of critical global, regional and country-specific challenges and opportunities; and offers new ideas to decision-makers and -shapers on how these could best be tackled from the near- to the long-term. For more information, please visit: www.chathamhouse.org.

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