OCTOBER 2021

STRATEGIC FRAMEWORK FOR DIGITAL ECONOMIC COOPERATION

STATE OF PLAY

INSTITUTE OF INTERNATIONAL FINANCE

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I. Introduction and Background

Digital economic cooperation is critical

Digital economic cooperation is critical for maintaining the integrity and stability of the digital economy – and this is challenging to achieve given the complexity and dynamics that need to be dealt with. The digital transformation of financial services presents an opportunity to update the policy frameworks that have shaped international policy coordination for the past several decades. Policy objectives, such as privacy, security, integrity, stability etc. are all well recognised as vital for all participants, however the mechanisms to achieve these objectives require a re-think.

There is too much focus on geography instead of shared governance.

The current trajectory of policy developments is resulting in us marching towards a fragmented and isolated digital economic landscape, which will inevitably result in the breakdown of interoperability, bringing about inefficient, costly, and duplicated control mechanisms. No one will benefit from this outcome and the need for digital economic cooperation has never been greater.

There are many legitimate concerns raised by policy makers.

Approaching an inflection point

The world economy is in the midst of a paradigm shift unlike anything we have seen before, a transition from an industrial based to a digital based economic model. This transition brings about a trend of digitalization across all industries across the globe, not only transforming business models and economies, but also requiring a new approach as to how we ensure stability and integrity in the new digital economic model.

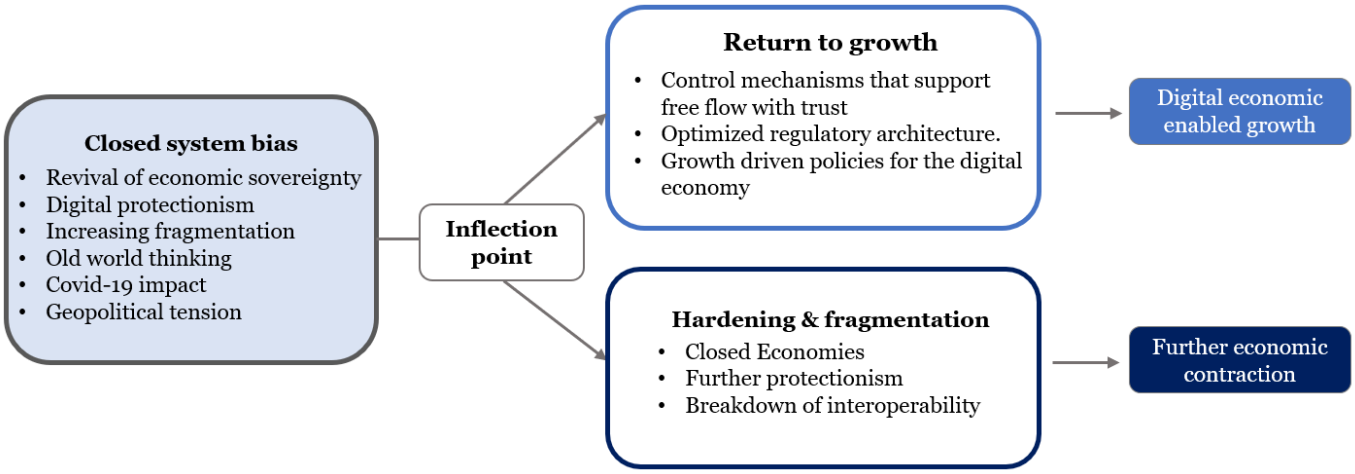
The introduction of various disruptive digital technologies such as big data, the internet of things, disruptive manufacturing enabled by 3D printing, and blockchain technology, to name a few, not only offers enormous opportunities for efficiency, job creation, new markets, fraud prevention and efficient payments, but also provides a significant competitive advantage to companies and economies who are early adopters and innovators.

The digital revolution offers enormous potential and economic prosperity to a wide range of stakeholders. Of particular interest is benefits to small businesses, for example creating access to new technologies and markets, which contributes to job creation and overall economic growth. The digitalization trend however also intersects with several other developments, of which the most important are:

- The global COVID-19 pandemic has accelerated digital adoption, but also brings about further fragmentation in policy and regulatory actions in unprecedented ways.
- Geopolitical polarization, nationalism and protectionism resulting in a regression for multilateral cooperation towards localization and an increasingly closed system dynamic.
- Nation state abuse of digital warfare, spyware technology and information manipulation that erodes trust in governance mechanisms, further fueling Geopolitical divides.

Policy actions during these turbulent times not only include once unthinkable approaches, such as regulating personal behaviour and use of surveillance state technology into legislation, but also result in significant fragmentation of the stability, integrity and control mechanisms of digital economic activities.

We are fast approaching an inflection point where further hardening and fragmentation will lead to an irreversible trajectory of further economic contraction, with adverse socio-economic consequences as illustrated below.



Once fragmentation and divergence are set in their tracks, it will be very difficult and slow to steer back towards harmonization. Further fragmentation will lower productivity, slow digital transformation, slow global trade and economic growth, whilst imposing significant barriers and cost to economic participants. The world economy is fragile and can ill afford this to occur as the need for drastic action to enable economic recovery has never been greater.

Call for action

Various participants in the global economic ecosystem realize that when the pandemic passes, we will have to find new ways to enable economic recovery. Fragmentation of the digital economy poses an enormous risk to the prospects of economic recovery, and many realize that the time has come to rethink how we co-create a new future. Leading voices are calling for a new "Bretton Woods" moment.

The internet is global, there is no other way than to work together.

Monetary Authority of Singapore (MAS) Managing Director Ravi Menon highlighted this global challenge to the digital economy and trade at the 2020 IIF Annual Membership Meeting. Menon spoke of the lack of a rulebook for the global digital economy, and perhaps the need for a 'Digital Bretton Woods', covering topics such as data localization and digital services trade. He argued that the absence of "rules of the game," were a major hinderance and that there is an important task for the private and public sectors to come together and set these rules for the digital economy, similar to what had been achieved for traded goods with GATT and the WTO. KPMG's Kay Swinburne also highlighted concerns about protectionism under the guise of "digital sovereignty" in Europe during that same 2020 Annual Membership Meeting.

While some bilateral and small group agreements address the issue partially, most notably with the Singapore-Australia Digital Economy Agreement, and the Digital Economy Partnership Agreement between Singapore, New Zealand, Chile and now South Korea, and while progress is being made at the G7 and G20, there is the need for continued coordinated and consistent action at the global level where nascent efforts have only begun identifying the problem.

A new approach is required for how digital trade agreements should be structured, how the digital economy's policy and regulatory framework should be reinvented, and how governments, policy makers, and private sector partners should design the principles for managing the digital economy, to enable economic prosperity.

Approaching a new "Bretton Woods" moment

After the time of World War II, all economies were effectively closed following an escalation of equivalent retaliation in trade tariffs, in some way similar to the current escalation in digital localization measures. The Bretton Woods agreement was formulated to establish mechanisms to re-enable economic flow in a controlled manner.

We are approaching a similar inflection point and there are several aspects that needs to be addressed. Much can be learned from the Bretton Woods agreement and the events leading up to the gathering of world leaders at Bretton Woods, New Hampshire, in July 1944. There are several similarities between what we experience today compared to the events that transpired at the time leading to the Bretton Woods agreement as illustrated below.

Pre-Bretton Woods	Current circumstances
• Great depression & WWII • Wars between countries • Need for reconstruction • Lack of a global institutional system • Lack of cooperation • Restrictive trade policies	• Economic shock from COVID-19 • Covert cyber warfare • Need for economic recovery • Lack of an institutional system for the digital economy • Widespread data localization requirements • Digital protectionism

The late 1930s and 1940s was characterised by extremely turbulent times and a fragmented global political landscape. The aftermath of World War II required significant intervention to bring the global economy back towards recovery. There was a lack of cooperation, restrictive trade policies and no global institutional system to set the path towards recovery. Policy makers were looking for policies and regulations that would maximize the potential benefits and profits that could be derived from the global trading system.

The Covid-19 global pandemic has resulted in an economic shock that is comparable to that of a global war. Public debt has reached record levels and surpasses even that of the post WWII era. Small and medium enterprises (SMEs) have been particularly hard hit and a significant percentage of the working age population across the globe has lost employment and are dependent on government support. This trajectory is clearly not sustainable. In addition to the economic challenges, covert cyber warfare combined with widespread policy regression towards protectionist and nationalist policies, in particular for the digital economy, risk causing further damage to an already fragile global economy. The institutional system we have today is an outdated legacy from the Industrial era and not reflective of the requirements to unlock the growth potential of the digital economy. Like the pre-Bretton Woods period, there is a need to define a new global institutional system that will enable the growth potential and benefits of the digital economy.

A different paradigm – new thinking is required

The circumstances today however represent a different paradigm than what existed during the 1940s, as the digital economy is very different from the industrial economy.

The industrial economy is dominated by the production of tangible goods and services, and trade and consumption of these goods and services, where trade agreements were formed to facilitate free flow of goods and services to create economic prosperity.

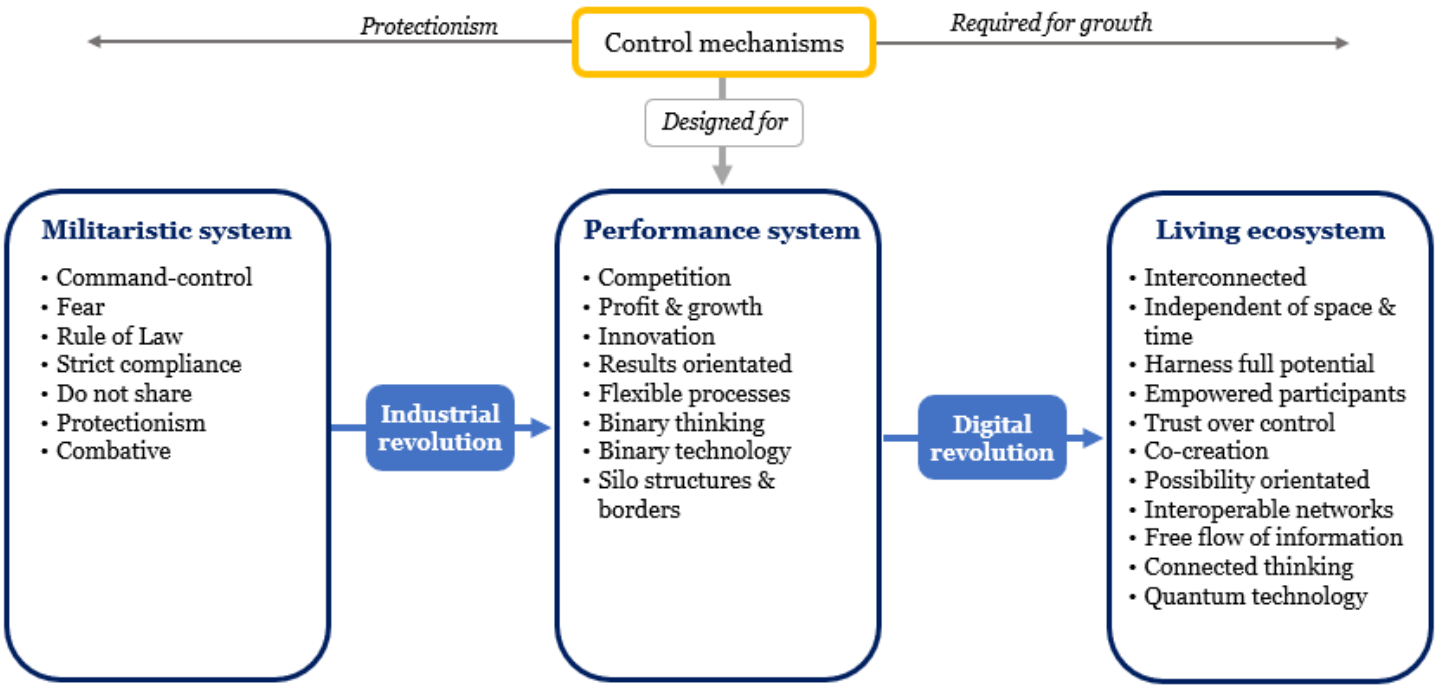
Digital is fundamentally different than physical.

The digital economy is dominated by establishment of platform and network services, collection and analysis of data, and monetization of the data and digital intellectual property. Digital economic requirements have limited coverage in existing trade agreements.

Industrial economy	Digital economy
• Production of tangible goods & services • Trade & consumption • Trade agreements for free flow of goods & services	• Digital platforms • Network services • Collection & analysis of data • Monetization of data • Digital intellectual property

Industrial and digital economic activities will continue to co-exist for a considerable period and often cannot be easily separated. The challenge however exists in that control mechanism, such as regulatory requirements, standards, industry bodies, as well as organisation's own control mechanisms, have all been designed predominantly to serve the industrial economy. These systems cannot simply be abandoned as they remain relevant for a large part of the global economy, but they ought to transform into new mechanisms established for the digital economy.

The global economy consists of many different permutations and levels of maturity across different territories. Most of the developed world's economic system has been built on the technologies and system that arose from the Industrial era, whilst many of the more closed-loop economies have a strong bias towards a militaristic system. The digital revolution however brings about a new system that can be best described as a dynamic living ecosystem, where the free flow of information enables real time, cross-border connectivity. These different economic paradigms can be best explained by means of the illustration below.



The transition for an industrial based economy to a digital based economy is not a trivial transition but should rather be seen as a profound paradigm shift in all aspects. The digital economic model not only entails invention and adoption of disruptive technologies, but at its core lies the adoption of interconnected digital economy ecosystems. The internet is a quantum system that operates on the premises that everything is connected all the time and everywhere, independent of space and time. A broad array of other technologies being adopted are accelerating change and together becoming the new drivers of growth and opportunity. History shows us that whenever major technological inventions occur, it always brings about profound changes to the way humans and economic systems operate. The digital revolution will be no exception, and we have no choice but to reinvent all aspects of the economic system as it will not be possible to succeed by maintaining old outdated "binary thinking" control mechanisms. We can therefore not expect that the existing control frameworks that have been built to serve the Industrial era, will be adequate to serve the needs of the Digital era.

II. Current challenges

The education challenge

The education and skills challenges are enormous. Most policy makers, regulators and business leaders have been schooled and conditioned to use Industrial era thinking and methodologies. Although they realise these old systems are being outmoded, they struggle to understand the new paradigm that is forming as part of the digital economy and have great difficulty responding to it. Some examples include:

- It is very hard to visualize solutions if one does not understand new technologies. Policy makers find it very difficult to get their heads around new technologies that they cannot visualize themselves.
- The industrial economy is more familiar and for some easier to understand because they can "see and feel" it, whereas the digital economy is more difficult to understand for many as it can appear that the working components are hidden in a "black box'.
- Most people do not realize that many components of the digital economy form part of their daily activities, for example, digital payments. The operation of these components is not visible to them, and they have limited knowledge as to how it works. For most this is okay, as long as they can be assured that the system works in a way that is trusted, secure and reliable.
- Effective and efficient policies for the digital economy are complicated to design and implement, because policy makers don't necessarily appreciate the sophistication of technological systems, which can result in misguided policy making.
- The economics and attributes of data seems to be miss understood, often under the misguided belief that the value of data is correlated to its location, as what is commonly observed with industrial resources, such as oil.

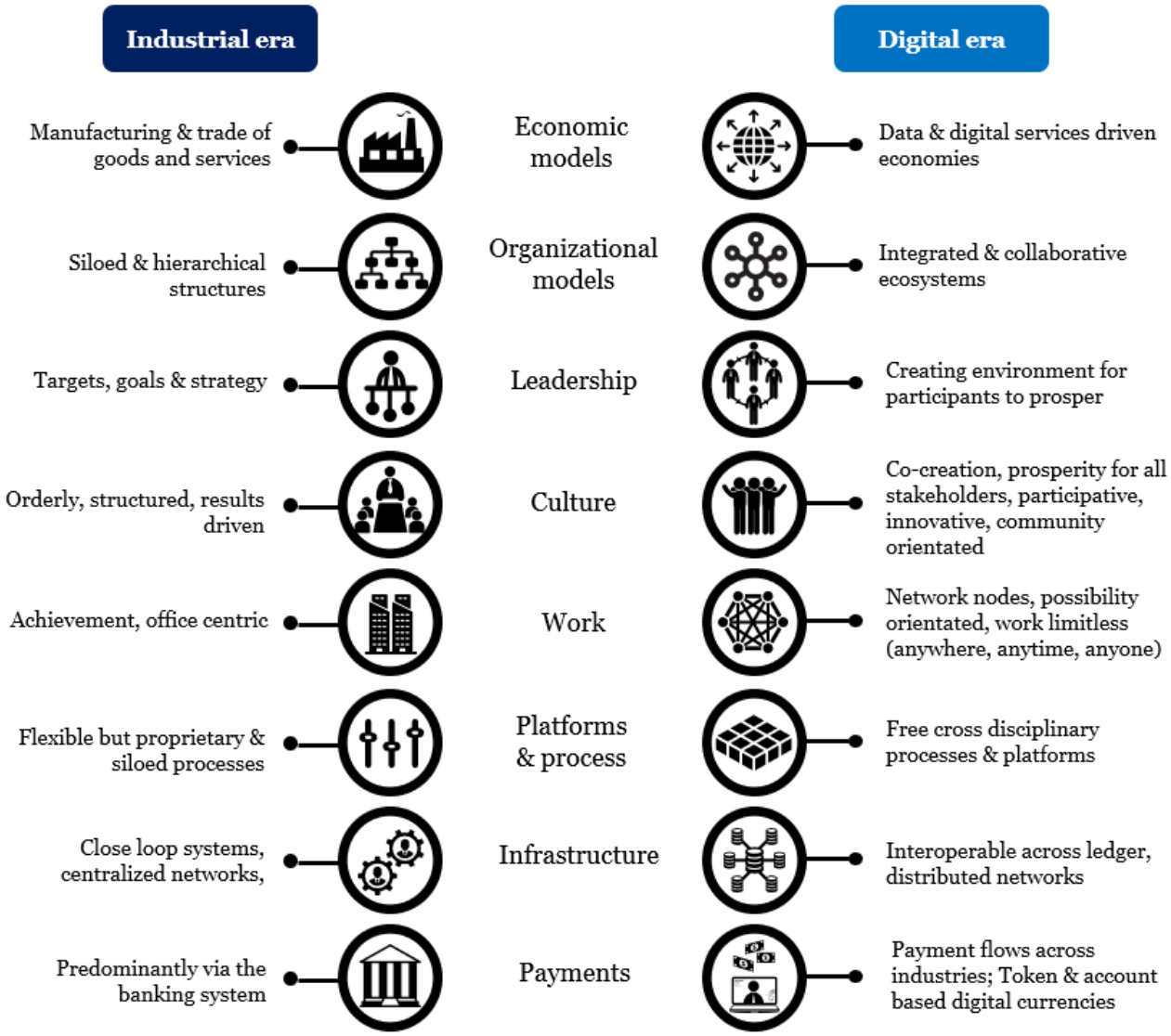
This section provides a high-level foundational overview of the key differences between the industrial and digital economies.

a) The key differences between the Industrial & Digital eras

The industrial economy has served the world economy well, creating enormous prosperity for many nations. The industrial economic mechanics are however fast becoming outdated and are often referred to as the "old world." These "old world" systems have been built on the mechanisms of borders, the "fittest will survive and rise to the top" reward mechanisms, boundaries for confined tasks, and performance objectives in well defined "boxes" to name a few.

The paradigm shift brought about by the digital economy and its quantum systems & technology, however, brings about very different technological and operational dynamics, for example widely distributed network platforms define the new way to engage with customers. Engagement occurs independent of space and time, across traditional boundaries of confinement, and location is becoming far less relevant.

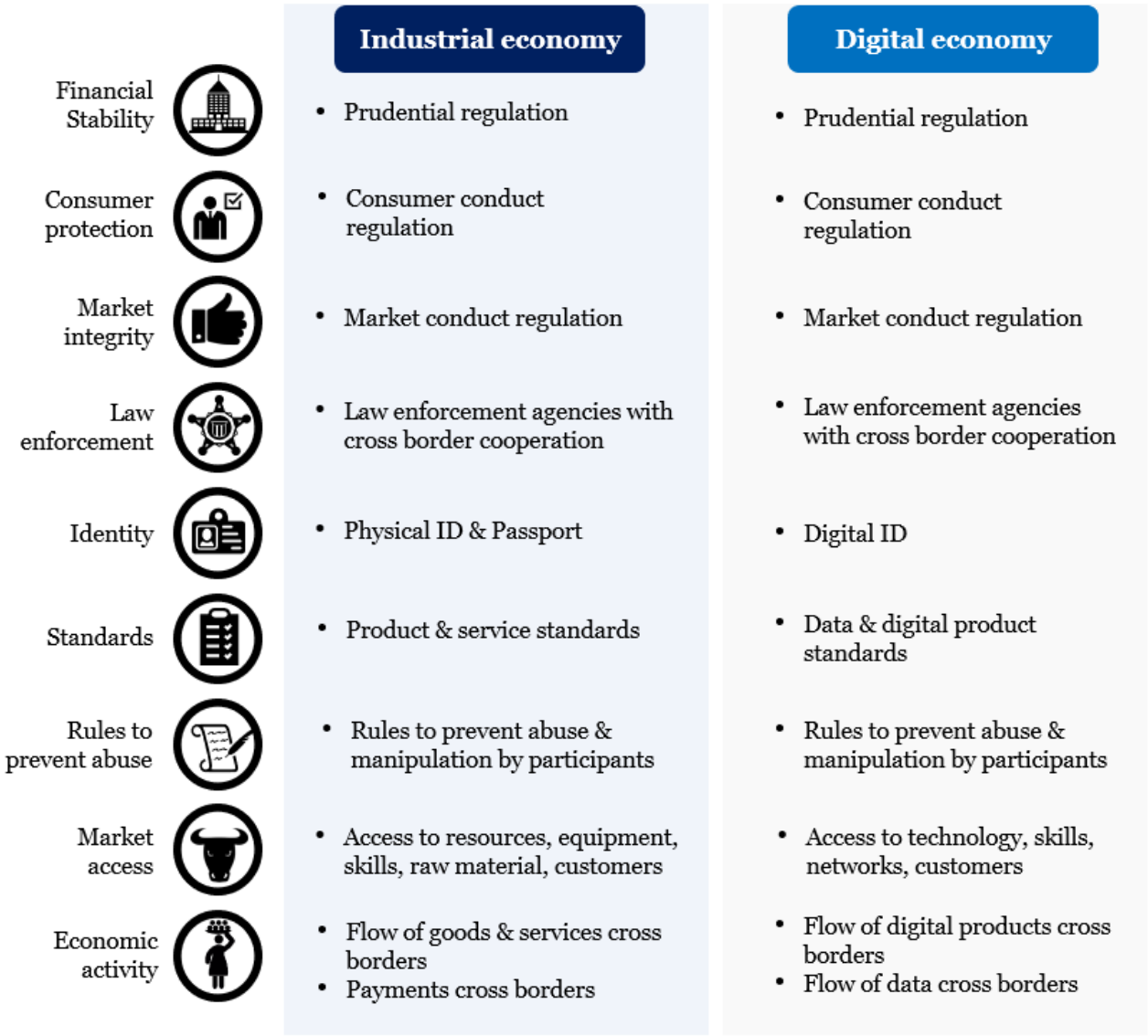
This paradigm shift is not just about new technology, but also a complete re-invention of all aspects of the economy and how its participants interact. The illustration below provides a comparison of some of the key differences between the two eras.



b) Similarities in control mechanism requirements

It is important to note that the digital economy, like the industrial economy, requires control mechanisms and supervision to ensure integrity, stability and to prevent abuse. The issue at hand is not the "right of existence" of control mechanisms, policy objective and supervisory bodies, but rather a requirement for "new thinking" that brings about fit for purpose control mechanisms that will enable the digital economy to thrive.

There are many similarities in the requirements between the industrial economy and the digital economy, as depicted in the illustration below. Although the themes may seem similar, the application and control mechanisms required are different.

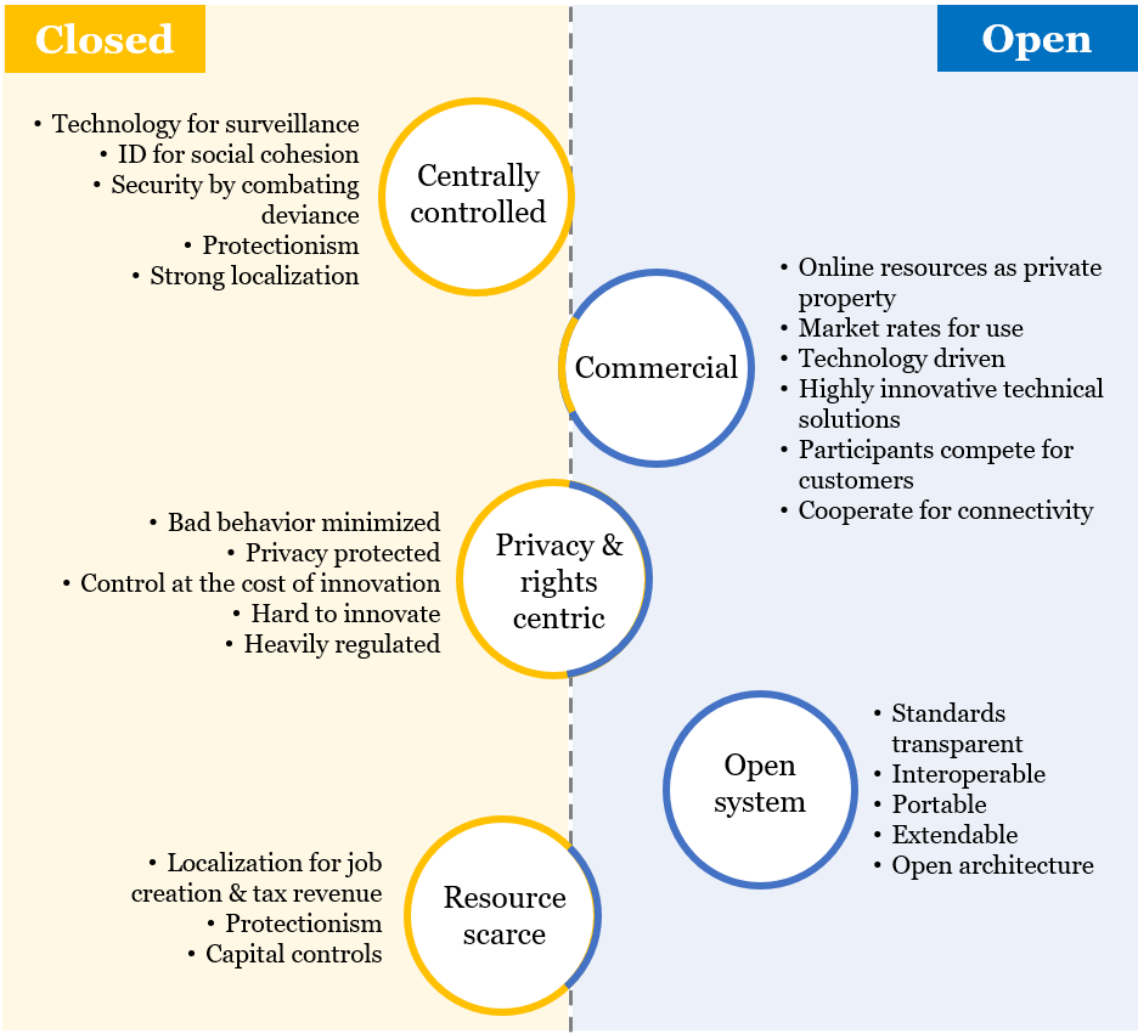


Many mistake the common themes as suggesting that the same approach and control mechanisms can be applied. This misconception is one of the leading causes for control mechanisms to become ever more complex and cumbersome and eroding the efficiency and effectiveness of the digital economy without necessarily increasing integrity and financial stability.

The 5 Dominant digital economic models driving the splinternet effect

There are 5 dominant digital economic models that are currently driving the direction of policy setting, as well as business models for the digital economy, as depicted in the illustration below. These digital economic models are heavily influenced by the political ambitions and economic objectives of sovereign nations as well as large corporate institutions. There is no one size fits all solution, and the utopia of a global multilateral approach will not be achievable any time soon, given the geopolitical tension and revival of economic sovereignty and nationalism at present. It is important to differentiate between the closed and open system

dynamics, as this polarisation will likely increase given the turbulent times in which we find ourselves.



Closed system dynamics make cooperation and free flow of data with trust very difficult and will inevitably result in a breakdown of interoperability that is critical for digital economic growth.

Open systems are built on the open architecture attributes of the internet and offer most promise for free flow of data with trust, a key requirement to enable continued digital economic growth.

Digital protectionism under the disguise of localization

While the pandemic has accelerated the trend of digitalization, unfortunately digital divides are concurrently deepening, posing a risk to economic recovery in the wake of the crisis. Many governments have been limiting market access for digital products and services, restricting data transfers, forcing foreign companies to invest in duplicate data centres in-country, and invoking protectionist barriers on digital designs. Digital localization also blocks many of the benefits and innovations of public cloud-based solutions and services.

Data protectionism ≠ protection

Previous IIF reports, including one titled *Data Localization: Costs, Tradeoffs, and Impacts Across the Economy*, have highlighted how data localization measures can undermine many of the efficiencies and economic opportunities of the digital economy, imposing costs and risks across the economy, and impeding financial service efficiency, fraud prevention, and innovation. Beyond the direct costs within our industry, the impacts transmitted across the entire economy include weakened systems, reduced connections to global value chains, and less opportunity to leverage global data and technology resources in areas including fraud prevention and efficient payments.

Micro and small businesses and gig economy workers may suffer some of the greatest impacts from data localization requirements, particularly in the developing world. Some evidence indicates that these protectionist measures disproportionately affect women entrepreneurs, who rely on platforms to connect to global value chains.

This is critical across a broader array of topics as the global economy becomes increasingly digitalized. While disruptive digital technologies (including big data, new forms of electronic payment, the internet of things, and distributed manufacturing enabled by 3D printing) may enable small businesses to engage in trade, digital protectionism and disrupted digital access serve to limit the potential for such breakthrough technologies to support economic growth, resilience, and recovery, particularly in developing countries.

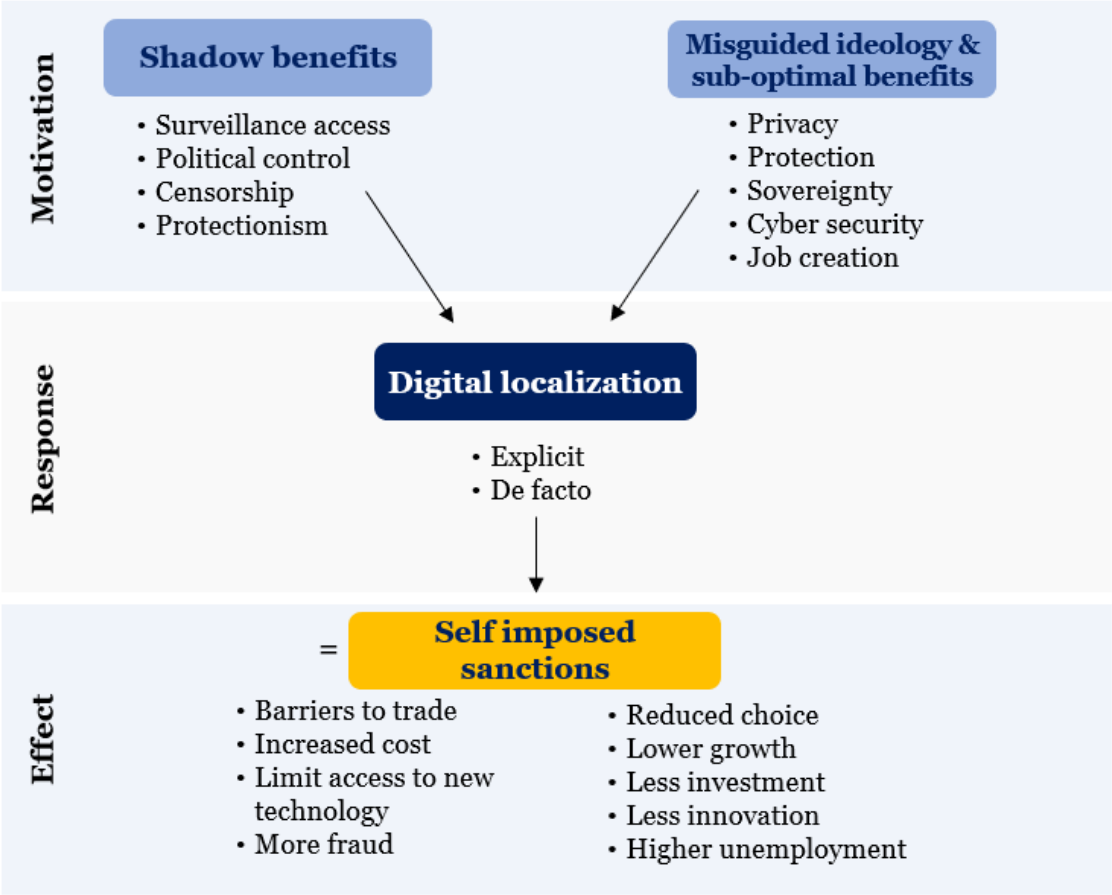
These issues need to be considered in the context of trade agreements, as well as the design and operation of local regulations, both in the form of requirements from financial regulators, and other requirements pertaining to local infrastructure and data privacy and security regimes.

Digital localization is broader than just data, as it also includes restrictions on digital services, transaction services, anticompetitive practices, and infrastructure requirements to name a few. Digital protectionism is often disguised in the form of localization measures, implemented as either explicit requirements or de facto requirements, where technical or approval requirements become excessively complex for foreign service providers to comply with.

It is in no one's interest to have duplicate & wasteful infrastructure.

Despite several research publications by leading thought leaders and research institutions criticizing digital localization, such as the Information Technology & Innovation Foundation (ITIF) report titled *How Barriers to Cross-Border Data Flows Are Spreading Globally, What They Cost, and How to Address Them*, it appears as if policy makers hardly pay attention to those voices raising concern. Discussion with several thought leaders and participants in the digital economy, suggests that the motivations for localization are often guided by either centrally controlled shadow benefits or misguided ideological beliefs, both of which overshadows the adverse economic cost of the policy decisions.

The economic cost of digital localization is akin to that experienced with the introduction of market interventions such as sanctions, as illustrated below.



All forms of protectionism and negative market intervention, such as sanctions, are harmful for economic growth. In some cases, concerns about U.S. sanctions can serve as motivation for regulatory localization, as can be seen with the establishment of Russia's National system of payment cards, the European payment initiative, South Africa's onshore processing requirements and Venezuela's countersanctions plan. Paradoxically, implementation of digital localization measures are having the exact same effects of inefficient resource allocation and isolation, that sanctions would have brought about in the first place. We do recognise that in some cases sanctions could be a valid motivation to localize, however, it should not be used as an excuse for the development and implementation of protectionist mechanisms. The current trajectory of fragmentation and protectionism is leading the digital economy down a path of economic failure where these lessons have been learned several times in history.

Although it is very difficult to influence the motivations for central control that are increasingly displayed by governments across the world, it is worthwhile. A greater understanding of how the digital economy and its technology mechanisms work should steer society away from misguided ideologies and suboptimal policy.

Policy makers and regulators often believe that if they require digital services and data to be located within their sovereign borders, it will allow better control, security, and integrity.

Data is not like oil. Oil cannot exist in multiple locations simultaneously, oil cannot be used multiple times, and you cannot copy paste oil.

This approach is a classic example of attempting to apply "old world" thinking to the digital economy. Data and digital services are often compared to industrial economic resources such as oil, leading to the misconception that digital services and assets can be controlled in the same way as physical commodities, by means of implementing geography-based control mechanisms.

We do recognise that there are many legitimate issues with regards to access to data, for example, local law enforcement may have difficulty obtaining access to data hosted in a particular foreign territory, as the process to do so could be bureaucratic and cumbersome. The assumption is therefore often made that the location of the data is both the problem and the solution. Instead, one should recognise that the problem in fact lies within the protocols and standards for data access and control rather than the location.

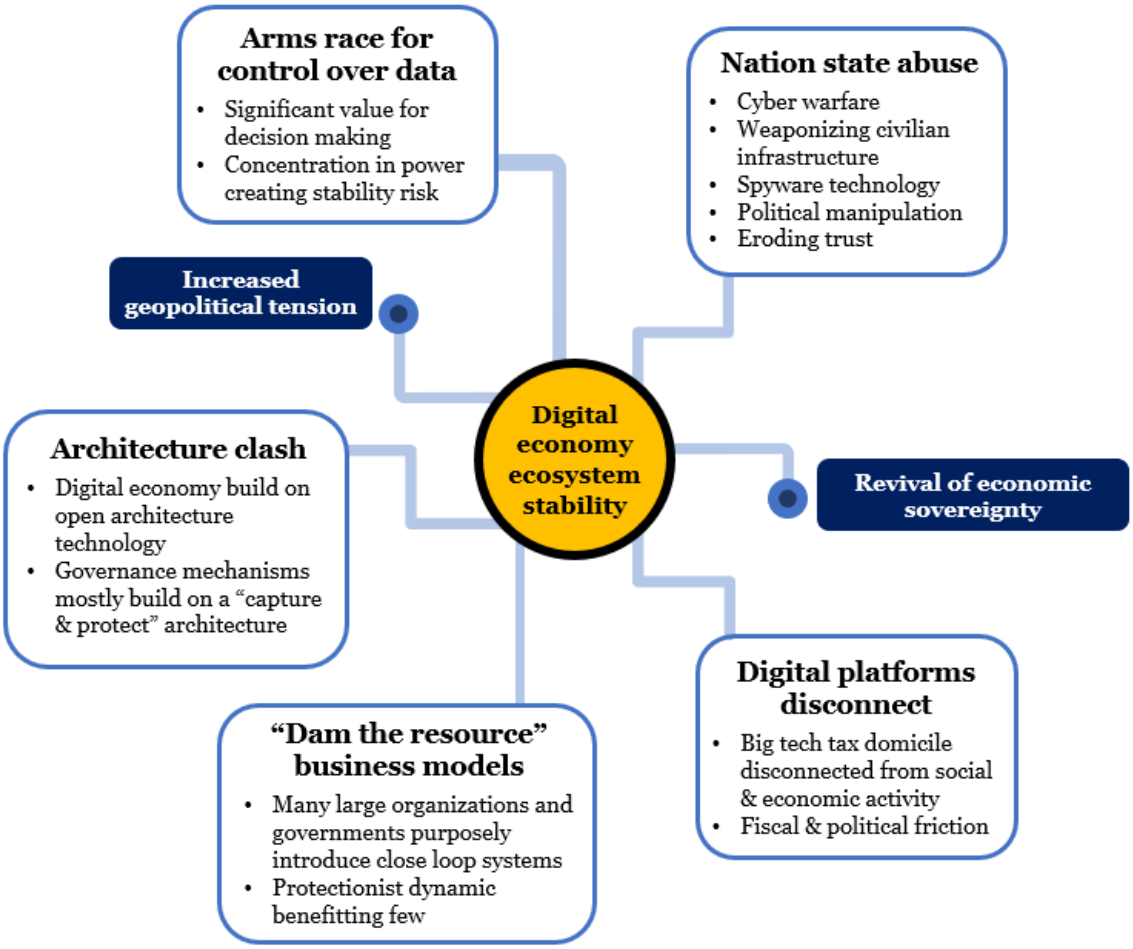
Digital protectionism is not only motivated based on data access and location concerns, but also for other considerations such as privacy, security, jobs, systemic stability, law enforcement and sovereignty. The most prominent misconceptions pertaining to these motivations are outlined in the illustration below together with a summarised overview of the reality of the situation which is often found to be in contrast with the misguided motivations.

	Misconception	Reality
Privacy	• Localization enhances data privacy as local controls and rules can be imposed	• Consumers are publishing large amounts of data across multiple platforms and territories in exchange for services • Best dealt with through controls rather than location
Security	• Localization provide better security as local rules & requirements can be applied	• Threat actors operate across territories • Localization Inhibits access to security technology and sharing of security threat intelligence • Location does not determine security, controls does
Data protection	• Data is protected by locating it within the borders of the country	• Data co-exist in multiple locations simultaneously • Data can be duplicated or stolen without localized versions being affected
Jobs	• Localization creates local jobs as technology companies must build local infrastructure	• Localization creates inefficiency, duplication and additional cost that transmits to all economic participants. This is very negative for SME's who creates most jobs.
Systemic protection	• Allows systemic infrastructure to remain under control in country	• Localization creates concentration risk whereas public cloud allows geographical diversification
Law enforcement	• Localization will provide unrestricted access for law enforcement	• Fragmentation prevents law enforcement access to all components of the value chain. • Closed loop systems inhibit cross border law enforcement • Criminal syndicates arbitrage fragmented law enforcement
Sovereignty	• Having data local provides control over the data, thereby retaining sovereignty	• Sovereignty of data is not about location, but the ultimate right to access & delete the data

Inhibitors to digital prosperity

The digital revolution kicked off with the invention of the internet, that is characterized by its open architecture, interoperability, extendibility, and open standards. These characteristics enabled rapid growth and innovation that continues to accelerate at an exponential pace. Digital infrastructure is widespread and continues to undergo significant transformation across all economies. The incredible success of the digital revolution unfortunately also resulted in a "land grab" dynamic that is not conducive for the prosperity and sustainability of the global digital economy. This dynamic is akin to dynamics that occur when new resources are discovered, for example a gold rush.

The "land grab" dynamic together with several other influences are starting to have a significant negative impact on the stability and integrity of the global digital economy as it erodes trust, damages cooperation and fuels fragmentation motivations. These dynamics are also often used as motivations for digital protectionism, thereby acting as saboteurs for digital economic cooperation and stability.



There are five major saboteur dynamics at play that create complications and barriers to achieving prosperity for all participants. Some of the more noteworthy observations are:

- ***Nation state abuse & cyber warfare***: Digital innovation brings about powerful technologies that can also be applied for offensive purposes. Nation states have made offensive and defensive cyber warfare capabilities a top priority. These capabilities enable a high degree of anonymity, creating a great temptation for covert cyber warfare, as it is often difficult to establish attribution. A rise in geopolitical tension, amongst others, has resulted in the covert abuse of sophisticated cyber warfare

technologies, weaponizing of civilian infrastructure, inappropriate use and selling of spyware technology and information manipulation for political gain. These dynamics are eroding trust in the governance mechanism and introduce significant risk to the stability and integrity of the digital economy.

- ***Architecture clash***: The architecture of the technology supporting the digital economy is built on open systems, whereas global governance institutions are still running on the Industrial era rails based on siloed and duplicated systems. This not only creates strain and the need for re-invention, but we also find that policy decisions are often formulated to "capture and protect" digital economic interest.
- ***Disconnect between digital platforms and their sociopolitical context***: Most large technology platform business models are domiciled in low-tax territories that are disconnected from their customers, employees, and economic activity, thereby creating fiscal and political friction and distorted flow of financial benefits, value, and cost. This disconnect fuels fragmented and protectionist policy decision making across the globe.
- ***"Dam the resource" business models:*** Many large organizations and governments alike purposely design their business models to operate as close loop systems. This creates significant barriers for interoperability, expandability, market access and ability to adopt transparent standards. The "dam the resource" models are protectionist in nature and do not always benefit all the participants in the global digital economy.
- ***Control over data:*** Data has significant value to inform decision making and influence behavior. The arms race for control over data has brought about significant concentrations in power and decision making to levels where it is creating risk to stability and integrity of the digital economy. Furthermore, the influence and dominance of big tech platforms results in the circumvention of democratic processes. Many believe that big tech has become more powerful than governments.

III. The need for digital economic cooperation

Need for new thinking

We are at an inflection point, either we allow further regression into fragmentation with dire economic consequences, or we collectively change the flight plan to create an open system where participants in the economy will create new growth opportunities.

To change the flight plan, we need a change in thinking, we simply cannot fix the problems we see today with the same "old world" thinking that is creating the problems. We need to move away from outdated silo and binary thinking to connected everywhere thinking.

You cannot solve a problem with the same thinking that created the problem.

It is about much more than just big tech

The global digital economy not only consists of big tech, large retailers, financial institutions, and regulators. Other participants, such as millions of small and medium enterprises, make out perhaps an even larger proportion of the digital economy. This sector is often ignored as disproportionate emphasis is being placed on big tech and its network effects.

Governments around the world are seeking to enable entrepreneurship, start-ups, and SME exports. This is particularly important against the backdrop of the job losses and damage inflicted upon SMEs during the global pandemic. Data localization policies do the opposite: they impose new costs on start-ups that could otherwise access low-cost and secure digital services such as hyperscale global cloud computing services. This is a problem especially for SMEs that rely on low-cost services to get their data processed and analysed.

Digital localization undermines start-up formation and SMEs' trade and growth.

A survey by the Visa Economic Empowerment Institute (VEEI) in five developing countries examined the impact of the pandemic on digital adoption, highlighting the following points:

- When asked what they most need to survive the crisis, a greater number of micro and small businesses indicated that they needed improved internet access, digital payments, digital marketplaces, and cybersecurity capabilities.
- Countries whose policymakers prioritize digital commerce infrastructure will have an advantage in this new era of business.
- Micro, small, and medium sized enterprises (MSMEs) want more assistance with regard to digital marketplaces, and policymakers could collaborate with the private sector in connecting small businesses to the world via marketplaces.

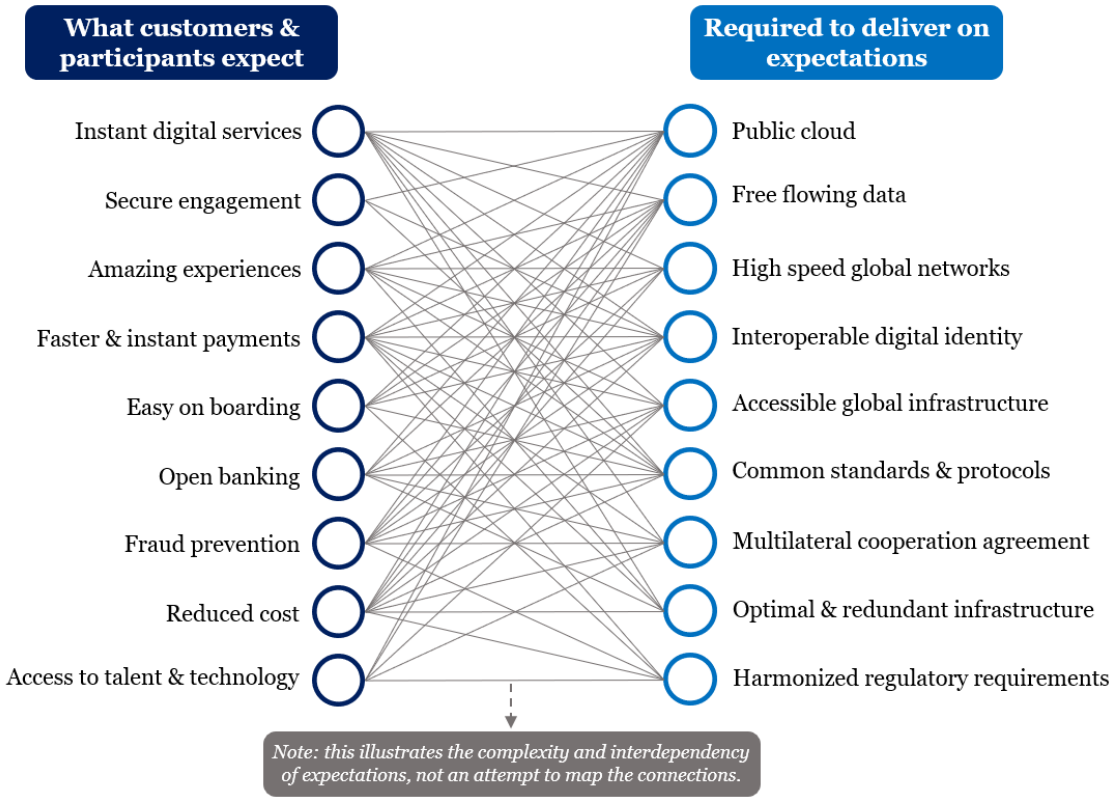
In addition, a survey conducted by the Centre for Strategic & International Studies (CSIS) on how businesses think about the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) have found the following insightful observations:

- The surveyed firms—and especially small online sellers that use data—see the CPTPP's provisions on free data transfer, ban on server localization, promotion of consumer privacy and protection, and liberalization of services as especially beneficial for their businesses.
- A substantial share of the surveyed firms engages in exports—38 percent of micro firms and 81 percent of large firms—and medium and large exporters especially derive a substantial share of their revenue from exports, including to the CPTPP region.
- To grow their sales into the CPTPP market, firms want information about foreign customers, market opportunities, and e-commerce capabilities.
- Domestic e-commerce has grown dramatically for CPTPP members during Covid-19; and cross-border e-commerce is still challenging, especially for smaller businesses.

The survey results are not unique to the regions covered by the CPTPP, as similar dynamics exist across other territories. The survey results however provide a clear proxy for evidence that digital economic cooperation is critical for economic growth, job creation and prosperity for participants in the economy at large.

Everything is connected – it is a living digital ecosystem

Mapping the complexity of the needs and expectations of participants against the requirements to deliver on these expectations, clearly illustrates that the digital economy consists of a very sophisticated and interconnected ecosystem that cannot be fragmented, as illustrated below.



This illustration highlights several important attributes of the digital economy, namely:

- The digital economy is a living ecosystem where everything is connected all the time. Living ecosystems cannot be compartmentalized and fragmented as it will result in a breakdown in interoperability, that will severely damage the ecosystem.
- Attempting to regulate each connection using rules and controls becomes an almost impossible task and very difficult to implement effectively.
- Every connection entails the flow of data of some sort, as data is information that forms the backbone of the living system.

Current approaches tend to treat the living digital ecosystem as a machine with the idea that the respective components can be separated, resulting in haphazard approaches to governing the digital economy that often reinforces geopolitical divides. This type of "old world" thinking will only fragment and inhibit the flow of data, resources, and activities in the digital economic ecosystem, through incompatible norms and regulatory regimes. It is therefore critical to recognise that a different approach is required to ensure integrity and stability of the digital economy.

Themes for further analysis

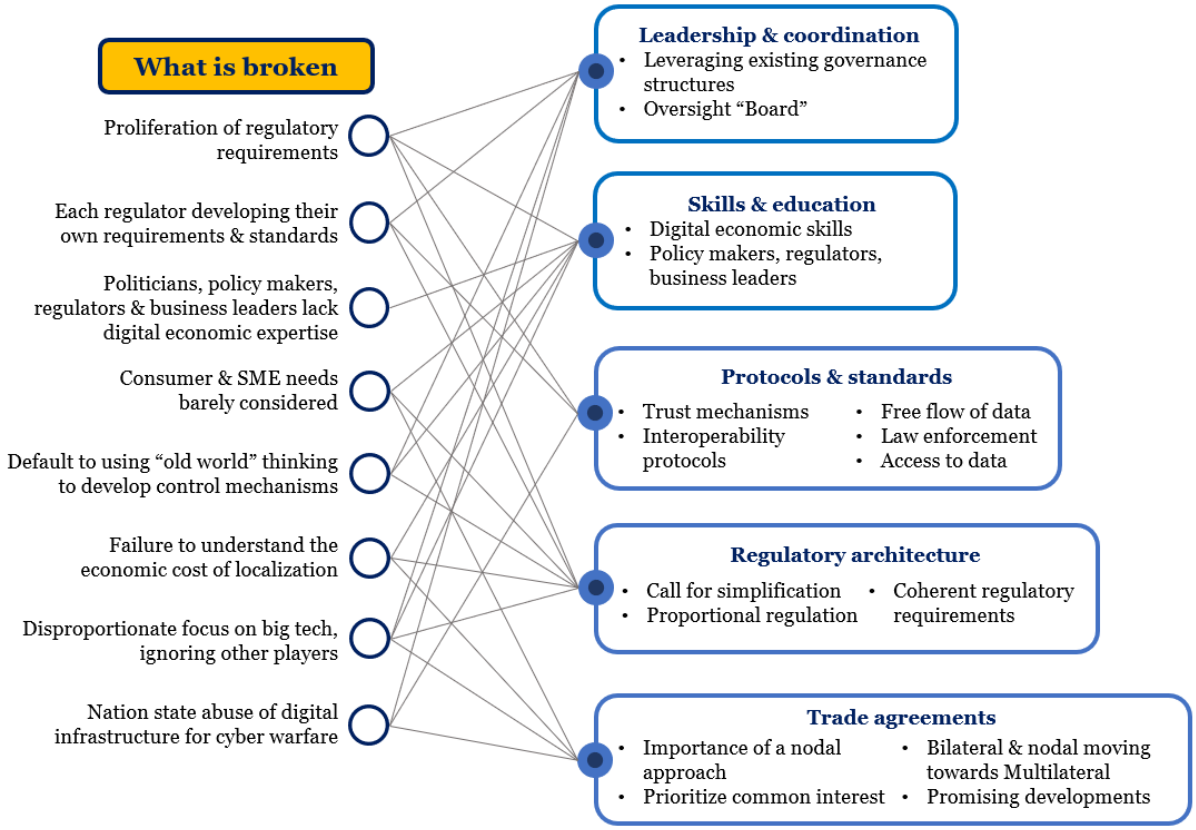
This interim report is focused on defining the "problem statement" with regards to digital economic cooperation currently, and to identify areas of focus for the final report that will focus on recommendations for a strategic framework for digital economic cooperation. Several themes have already been identified that requires further analysis.

It is very hard to visualize solutions if you do not understand new technologies.

Defining the "problem statement" is in some way easier than identifying the proposed solutions, given how complex the dynamics are, and many feedback loops and interdependencies exist.

More layers of regulation is not the solution.

There are several aspects that are broken and need to be reconsidered, whist there are also control mechanisms missing and areas that require an overhaul. All of these appear to be interconnected; however, it is becoming clear that shortcomings exist in five main themes, namely, leadership & coordination, skills & development, protocols & standards, regulatory architecture and trade agreements as illustrated below.



Achieving multilateral coherence through either coordinated agreements, such as the historic Bretton Woods agreement or leveraging forums such as the G20, appear to be a long way from reality given the current complicated geopolitical dynamic and revival of economic sovereignty. However, there are several opportunities to make considerable progress dealing with requirements by means of leveraging and transforming existing governance structures, driving coherence and cooperation using a nodal approach and starting to re-evaluate the control mechanism architecture, to bring about simplicity and more effective trust mechanisms, to ensure free flow of data with trust.

The technology and intellectual capabilities exist to solve the problems; what is required is leadership, mobilisation and coordination of these resources to help solve these challenges in order to enable the enormous benefits that the digital economy has to offer.

IV. Appendix - Resource list

There are several very insightful publications, articles, videos and reports available that have been used as input to our research. The list below provides a reference of key resources used.

Alliance for eTrade Development, Kati Suominen, "Why data localization hurts implementing economies"

Australian Government, Department of Foreign Affairs and Trade, "Australia-Singapore Digital Economy Agreement: summary of key outcomes"

Australian Government, Department of Foreign Affairs and Trade, "Australia-Singapore Digital Economy Agreement"

Berkeley Technology Law Journal, Douglas Arner, Giuliana Castellano and Eriks Selga, "The Transnational Data Governance Problem"

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Lead Author

Jaco Grobler
Founder, New Paradigm Finance
jaco@newparadigmfinance.com

Other Contributors

Conan French
Senior Advisor, Digital Finance
cfrench@iif.com

Brad Carr
Managing Director, Digital Finance
bcarr@iif.com