WHITEPAPER

Regulatory Fragmentation and Real-Time Payments

Introduction

Are modern real-time payment infrastructures the result of regulation or of commercial necessity and end-user demand? This has been a common debate but what is clear, is that regulators are almost always involved in a catalyst role but the extent of their involvement varies considerably (see below).

Representative Real-Time Payments Schemes

Catalyst	Company	Domestic P2P	C2B	B2C	B2B	Cross border P2P
Central Bank	SPEI Mexico	●	●	●	◐	◐
Central Bank	IMPS India	●	●	●	○	○
Competition Authority	Faster Payments UK	●	●	◐	◐	◐
Major Banks & Central Bank	bankgirot Sweden	●	●	◐	◐	◐
Central Bank & Infrastructure Institution	Express ELIXIR Poland	●	●	◐	◐	◐

● Strong ○ Weak

Their influence on real-time payments via regulatory mandates is quite clear in some geographies (such as Mexico, Hungary, India), but not in others (Sweden and Denmark for example). Most geographies fall somewhere in the middle ground, with regulators offering encouragement to varying degrees (Singapore, Australia) and passing legislation that encourages adoption of real-time payments.

Yet, it is undeniable that even in the absence of an enforceable mandate, regulations (and regulators) play a

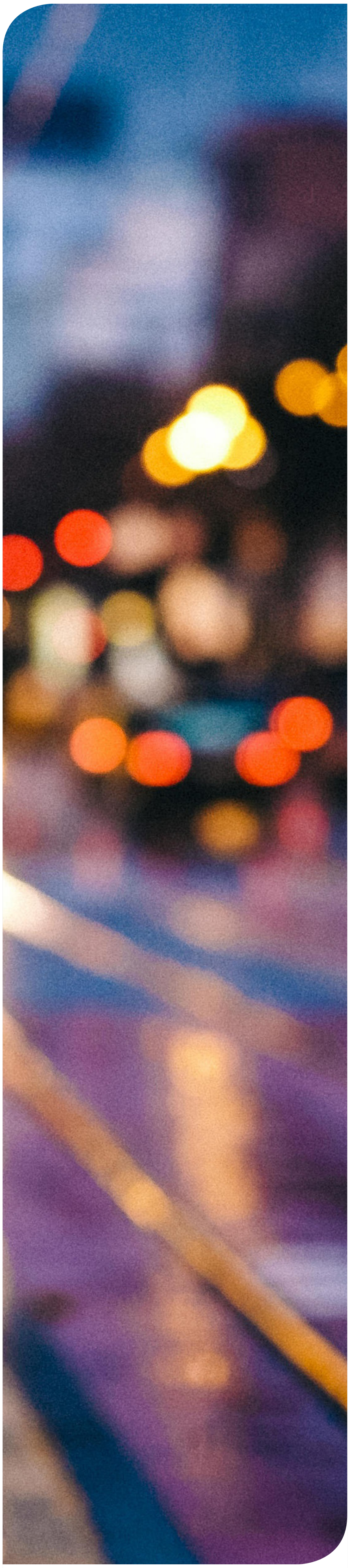
COMPLEXITY SIMPLIFIED

key role in shaping the creation and evolution of real time payment schemes.

An example: ISO 20022

ISO 20022 had been "one of many" standards until it was chosen as the lead one for SEPA. Once it was adopted by global banks in their European operations, it made it a default choice in other geographies. This led central banks and clearing houses to embrace it at the national level at places as far flung as India (which adopted ISO 20022 for its RTGS) and Canada (which made ISO 20022 the cornerstone and the first deliverable of its payment modernization initiative).

This is a clear example of how a regulatory decision in one geography has improved efficiency (no more format translations!) and service quality (all the data space you can possibly want!) on the global level, to the point where legacy formats are actually being retired, resulting in cost savings and improved experiences for the end user.



Case study: The evolution of immediate payments in India

The Payment and Settlement Systems Act, 2007 enabled the Reserve Bank of India (RBI) to direct the National Payments Corporation of India (NPCI) to introduce Immediate Payment Service (IMPS) - an instant real-time inter-bank electronic funds transfer.

Further government initiatives aided adoption, e.g. "Non-cash payments saw a surge immediately following the demonetization policy enacted in November 2016, when cash in circulation fell by two-thirds. Digital transaction volumes grew 43 percent between November and December 2016".

Source: https://www.frbsf.org/banking/asia-program/pacific-exchange-blog/demonetization-is-catalyzing-digital-payments-growth-in-india/

The limitations of regulations

However, not every regulatory action had been so successful for the adoption of real-time payments. Under the direction of Banco de Mexico (Banixco), their interbanking electronic payments system SPEI had been enhanced to provide many of the benefits of the real-time payments. They achieved their objective, but Banixco's incremental, "one regulation at a time", approach resulted in a timeline over a decade long, starting with the initial SPEI launch in 2004, improving settlement speeds (from 30 min to 5 seconds) and finally adopting 24x7 operating hours in 2016.

Judging the influence of regulations

To really judge the efficacy of the current regulatory landscape I have uses the criteria articulated by BIS: Safety and Efficiency and focused on the end-users of the service, assessing how well the current regulatory environment protects them and facilitates the improvements in their payments experience.

At this point, the “safety” picture is mixed – reflecting the fact that in most geographies regulations have evolved alongside each individual payment rail and mechanism. This has led to a complex and confusing experience to the consumer where they are now expected to understand the implications of how a particular payment is made. Even if such an approach made sense in the past where the choice of payment instruments was limited (“paper or plastic”, “cash or credit”), today a payment instruction entered in the online banking channel may result in a book transfer, ACH, check or a real-time payment – with that choice frequently outside of the customer control.

This negatively impacts the adoption of real-time payments in two ways:

1. The lack of clarity around the protections and recourse inhibit the switch from the legacy (and hence more familiar) methods and delay the benefits of the new capabilities;

2. The lack of uniform framework introduces a barrier when the end-user has a choice of several different real-time payment services – each with its own rule, rules inherited from partners involved in service provisioning, and finally overlaid by the state and national regulations and law. Given this complexity, the end-user frequently avoids making the choice altogether and stays with what is familiar.

The “efficiency” component is really driven by the country heritage – and what it believes to be the correct balance between central planning and the invisible hand of the market to achieve the optimal result. As is usually the case, the geographies that emphasize central planning achieve an early lead. For example in Thailand, Prompt Pay

went live in January 2017 and had 20 million registrations completed by April 2017 (in a country with 40 million accounts) due to the government's e-payment Initiative (launched in 2015), which aims 'to create a cashless society, integrate the informal economy into the banking system, capture data on current social programs, and introduce greater transparency.' This speed of adoption is much faster than those experienced by Zelle or Venmo which rely purely on the market mechanisms to acquire subscribers. And even in Sweden, where the population had already been primed for mobile banking, it took three years (2012 – 2015) to reach the goal of over 50% of the population.

Even in the countries steeped in the free market it helps to have support from the regulator. For example, countries that believe that Instant Payments are the next generation of retail payments (e.g. Netherlands – which is already sending every eligible Credit Transfer through the Instant rail) will likely curtail their use of ACH sooner, thus reaping the economies of scale absent in the case where every FMI must be supported equally. And countries which can count on a majority of financial institutions joining the scheme fairly quickly can commit to lower pricing – avoiding the need to include the "adoption incentive" component and getting to the economies of scale sooner. These probably explain why Target2 felt confident to publicly announce its pricing for TIPS of EUR.002 – which is the lowest interbank pricing I am aware of.

Thus, even though the argument that regulations frequently lead to unintended consequences (just ask a banker about DF 1073 or whether PSD1 really increased competition in Europe), there is no denying that they also lead to intended positive outcomes.

Settling the debate

Given the above, what conclusions can we draw?

1. **Regulation is effective in catalyzing change around real time payments, particularly when it is coupled to a strong national objective (financial inclusion, cashless society, etc.).** This is because other regulations and actions are often taken (e.g. switching national payroll and pension to the new rail), that seed adoption and provide an implicit seal of approval which removes the barrier of uncertainty about the benefits and drawbacks of the new service.

2. **This seal of approval is particularly important**

in jurisdictions where the regulations are not comprehensible to a non-payments professional (typically because they were created in response to specific events over many decades), since it is much easier to become a lead adaptor (a "technical" action that can be taken unilaterally) than simplifying and harmonizing the corpus of rules and regulations (a political action requiring building support in the legislative arena and fraught with risk of getting unwelcome attention).

For a view on the characteristics of the harmonized framework please refer to the box below.

Characteristics of the greenfield governance framework

1. It is comprehensive without being unduly complex.

a) It would articulate universal principles (e.g. "Eliminate practices that deprive consumers of control of their funds") and then introduce variations and exceptions only as needed – introducing clarity and transparency.

b) Rather than being bound to the capabilities of the rails (as it had been historically in US), it will define the consumer and corporate experience in a few well-defined categories across all rails, such as "maximum loss for fraud", "re-credit time", "unauthorized use", etc. – removing the bias against new capabilities because of the "fear of the unknown" and reflecting the new realities of the omni-modal payment experience.

2. It will be outcome-based, since in the rapidly evolving world only the desired outcomes offer a stable target.

3. It will incorporate provisions to harmonize/interoperate with the global payments regulations which will come into existence once cross-border real-time payments become a reality. [However, given the experience with other global frameworks – e.g. Basel Capital Adequacy rules, this task that maybe beyond the current level of maturity of the industry.]

In the words of World Bank Chief Economist Paul Romer, "Simple rules that are easy to follow are a sign that a government treats its citizens with respect. They yield direct economic benefits — more entrepreneurship; more market opportunities for women; more adherence to the rule of law."

Source: https://www.americanbanker.com/opinion/regulators-say-they-promote-innovation-but-the-opposite-is-true

3. **A high cost compliance environment deters innovation.** Similar to its effect on adoption, the high cost compliance environment (be it due to the complexity of the rules and regs themselves, the severity of penalties etc) deters innovation, since the finite resources of the solution providers are diverted to comply with duplicative or disparate jurisdictional requirements.

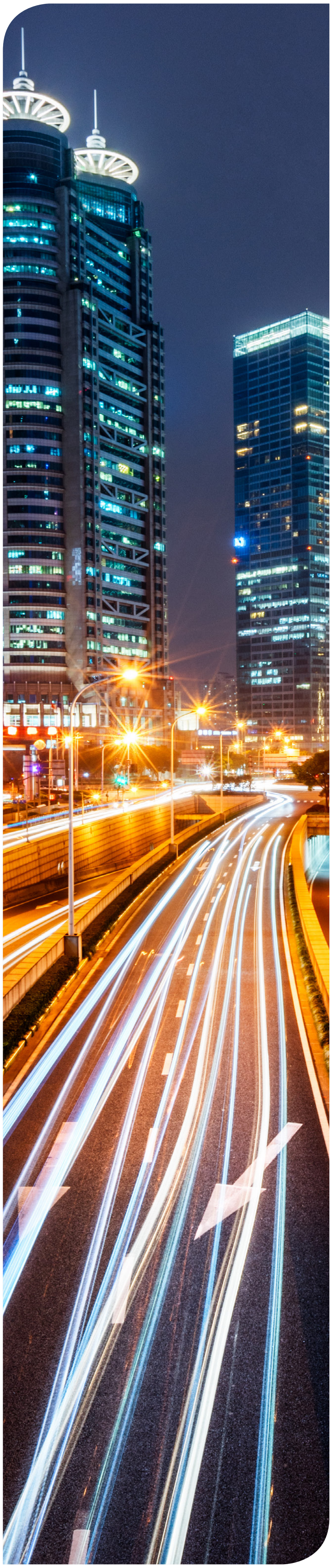
With respect to the compliance burden, "Regulators in the United Kingdom, Australia, Singapore and the U.S. have acknowledged this in establishing "sandboxes" that aim to allow promising fintech ideas to develop without the distracting hurdle of heavy enforcement" .

However, that doesn't help when multiple regulators claim jurisdiction. Even within a single country (e.g. USA), "Besides the OCC, the potential regulatory sphere for fintech disruptors could touch any number of the following financial regulators: the Federal Reserve Board, Consumer Financial Protection Bureau, the Financial Industry Regulatory Authority, the Securities and Exchange Commission and the Federal Deposit Insurance Corp. That is not to mention the 50 state regulators, many of which already regulate fintech firms. While banks and other financial institutions have multiple supervisors, at least they know who is responsible. With a fintech firm, nothing is definitive at this point." This creates the barrier to entry that only the extremely well-funded organizations with sizable legal & compliance departments can brave.

And when crossing the borders, the complexity increases by another order of magnitude. History has taught us that solving it through bilateral national agreements is going to be highly expensive and inefficient. Perhaps here we can adopt the lessons of the Internet. "Policy makers responded to the emergence of the Internet by developing a framework for electronic commerce that recognized the Internet's great potential while balancing its new risks. In 1997, the United States White House issued a Presidential Directive acknowledging the promise of new technology and setting expectations for safety and risk. Further, in 1997 the European Commission adopted the Bonn Declaration, a similar framework on global information networks. These frameworks established clear, predictable, and globally coordinated rules for electronic commerce that ensured security and privacy. This crucial step recognized the Internet's potential, allowing positive uses of these technologies to take root, and questionable uses to be identified and resolved."

4. **Regulators need to find the balance between the "invisible hand of the market" and the 'guiding hand of the regulator".** The controversial topic of regulators "picking winners and losers" highlights that by doing so this distorts the competition of the pure free market which may be detrimental to consumer. On the other hand, not doing so may delay the benefits to society from earlier adoption of value-added capabilities, deter development of these capabilities due to the poor ROI of developing products for an uncertain market, and increase the overall cost to society as financial institutions – saddled with burdens of supporting multiple functionally equivalent infrastructures, pass the associated costs onto their customers.

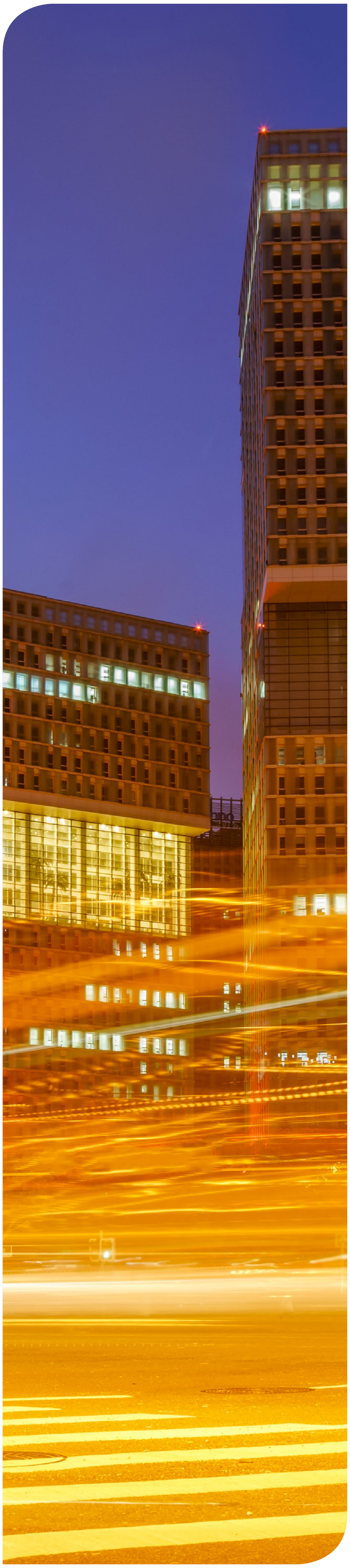
This sounds to me very much like the debate around



the need for national industrial policy, be it for agriculture, semiconductors, renewable energy or payment services. The plain fact is that some policies are good, and some are not. I would argue that if a measure of a regulator is continual improvement of the payment system, we should explicitly acknowledge that being able to promote national policy is one of the tools for the job. With that acknowledgement, the regulators should apply lessons learned in other fields to find the balance between being the "invisible" or "guiding hand".

Conclusion

In summary - progress is being made at varying rates around the globe. However, the more complex the country, the more difficult it is to envision how the regulatory web can reform itself without some exogenous change. Nonetheless, as we are nearing operational maturity in deploying domestic real-time payments we need to continue to reform/simplify/harmonize the national regulatory frameworks in key markets and then apply the lessons learned to the global real-time payments.



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