

TOWARDS A MATURE DIGITAL PAYMENTS MARKET FOR INDIA

As the digital payments market matures, there is a natural tendency for market dominance by a few players. This policy brief examines the current digital payments landscape to find that while most segments are currently competitive, the emerging role of National Payments Corporation of India (NPCI) as the key player needs urgent attention. NPCI has become the cog of the digital payment ecosystem in India, operating the predominant retail platforms and managing key products.

Key Takeaways

- Broad-basing the governance at NPCI must be the first step. This was also recommended by the Watal Committee on Digital Payments, 2016, and accepted in principle by the RBI then. All categories of players should get a voice on the dominant platform, and shareholding should extend to non-banks.
- A formal forum where banks, non-bank payments operators and NPCI meet regularly must be instituted at the earliest. This would be best done under RBI stewardship; this is to ensure that the voice of non-members is also heard in deciding on the rules that govern the ecosystem. Further, an Ombudsman must be appointed to arbitrate between NPCI and players in the digital payments space for more fair mechanisms.
- There should be clear rules and time bound processes for entry and exit into all segments of the payments systems. While most segments are currently open, the RBI must set a clear road map to allow entry into settlement operations/switches, to allow for potential competition to NPCI in the long run.
- It is time for the government to follow the Watal Committee recommendation for legal changes to classify NPCI as a Critical Payment Infrastructure Company (CPIC). When classified as a CPIC, NPCI would be bound by the principles of the CPSS-IOSCO Disclosure framework and assessment methodology. This will bring transparency into performance metrics and governance. Meanwhile, the RBI DPSS should make public the risk assessment of NPCI and the steps taken by the NPCI as advised.

Payments systems are highly integrated mechanisms, with intimate linkages across the monetary and financial sectors. The RBI is best suited to regulate it both from an efficiency perspective and from the perspective of maintaining financial stability, the latter being its key mandate. A separate payments systems regulator, as currently recommended in the draft Payment and Settlement System Bill, 2018 would make the whole mechanism far more complex with too many overlapping areas. At the same time the RBI has to be more proactive and transparent in its monitoring and regulation functions than it has been so far.

Background

The goal of universal financial inclusion calls for a digital payments ecosystem characterised by low cost operations, high levels of innovation, and generating attractive investment opportunities. The digital payments ecosystem in India has evolved under strong regulatory and government oversight - two of the key mechanisms being the focus on interoperability and use of public sector to achieve 'public' ends. While there may have been minor departures from these goals, unarguably the overarching direction has been sustained through the last two decades. There have been significant benefits in terms of avoiding private sector market dominance and the rapid spread of low-cost digital payments services. Regulatory and policy synchronization has enabled a vast network of interoperable infrastructure of ATMS, PoS terminals etc., innovative products like UPI, and the move towards interoperability between wallets is also well underway.

While the RBI is comfortable regulating banks for ensuring financial stability, it is the entry of non-banks in the payments business that raises concerns for the regulator. What are the risks that concern regulators and policy-makers? When a single non-bank technology service provider performs a similar payment service to numerous banks, processing significant volumes for them, any operational disruption at this point can impact the entire system. There is also the risk of data security breach at a payment provider level or at the level of any party that stores

payment information along the length of the digital payments chain. Further, dominance and concentration, whether public or private, can impact both competitiveness of a sector as well as innovation. Over-dependence on a single platform has its own risks, even if in the public sector.

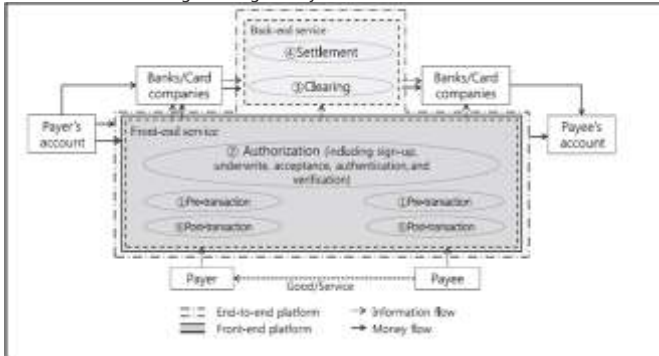
With the growing role of non-banks in the payments system, the Watal Committee on Digital Payments (Ministry of Finance, December 2016) had recommended separation of the regulation of payments from central banking i.e. an independent payments regulatory board. In our submission to the Finance Ministry, Indicus Centre for Financial Inclusion had recommended making the current Board of Payments and Settlement Systems within the RBI more independent, including non-RBI experts and answering to the RBI Governor (ICFI, January 18, 2017). Creating a separate payments regulator creates coordination issues for RBI's responsibilities towards financial stability, increases compliance costs and does not necessarily improve efficiency. The dissent note by the RBI to Inter-Ministerial Committee for Finalisation of Amendments of the PSS Act, 2007 (RBI, October 19, 2018) has set out valid reasons for keeping regulation of payments within the RBI.

This policy brief begins by setting forth the nature of the digital payments market, examines the current landscape in India for market dominance, and looks at the way forward for regulatory and policy action.

The Nature of Digital Payments Market

A single payment process comprises several stages and involves many providers. Payment service providers could be bank or non-bank, private or public entities and could provide either the complete end to end service for a customer or conduct just a specific part of the payment process, coordinating with other entities for the remainder.

Figure1: Digital Payment Process Overview



Source: Jun and Yeo, 2016 available at <https://onlinelibrary.wiley.com/doi/epdf/10.1111/ajfs.12126>

Even though there are a multitude of payment instruments and players, the market may not be inherently competitive. In fact, regulatory interest is drawn to two important features in the retail payments market (BIS, Non-banks in retail payments, 2014):

- the provision of payment services is characterised by economies of scale, where the average cost of producing a payment service falls as more of the service is produced, and of scope, where the processing of multiple products on the same infrastructure reduces unit costs or improves their quality.
- retail payment services benefit from cross-platform externalities - with each additional merchant that accepts a payment service, the value of the service increases for all consumers.

In such a “two-sided market”, network effects tend towards a dominant platform, making for concentration risk (Rysman, The Economics of Two-Sided Markets, 2009). On one hand, new entrants can take advantage of existing economies of scale and scope and on the other, it may be more difficult for entrants to gain ground, as this calls for a critical mass of consumers and merchant acceptance points to cover the initial costs. It is for these reasons that globally, players like Alipay, WhatsApp, Amazon, Google, Apple, with a large digital consumer base are the ones who are entering the payments market, which is once again raising concerns of competition and concentration in the payments market.

Consider two broad components of the market – the retail or front-end service that requires the service provider to deal with the payer and payee, bank issued credit cards are examples of these services; and the back-end service that comprises of the payment clearing and settlement services, for example, NPCI (see Figure 1).

Though there are some payment services where the two are tied, the predominant portion of digital payment services are tied through contractual arrangement between the upstream clearing service providers and the downstream payment service providers. Therefore, dominance in one segment will impact the other as well. As the Table 1

below shows, there is a greater possibility of dominance and concentration emerging in the back-end payment services, than the front-end retail side of the market. There are further complications arising from the non-separation of product and platform in the case of NPCI, and this will be examined in the next section.

Table1: Digital Payments Providers

Payment Service	Front-End	Back-End	Access Infrastructure
Credit Cards	All Commercial Banks (but not Payments Banks)	Mastercard, Visa, RuPay (NPCI), Diners, American Express	Plastic and smart cards, POS Terminals, ATMs, Payment Gateways
Debit Cards	All Banks, including Payments Banks	Mastercard, Visa, RuPay (NPCI), Diners, American Express	Plastic and smart cards, POS Terminals, ATMs, Payment Gateways
Internet Banking	All Banks, including Payments Banks	Card payments through Card Switches, Direct transfers: IMPS - NPCI, For larger transfers: RTGS/NEFT - RBI	Connection through many Internet Service Providers
Mobile Banking	All Banks, including Payments Banks	Card payments through Card Switches, Direct transfers: IMPS - NPCI, For larger transfers: RTGS/NEFT - RBI	Connection through many Cellular Service Providers predominantly smartphones
Pre-Paid Payment Instruments (PPIs)			
Mobile Wallets	1) All Banks 2) Non-Bank PM Licensed Entities including Payment Apps like proposed WhatsApp, AmazonPay etc.	NPCI	Mobile Phone
Prepaid cards	Same as above		

Retail Payments Space

To understand the presence of concentration risk in the Indian digital retail payments space, we take each segment separately. Consumers can make digital payments online, through PoS terminals or their mobiles using credit or debit cards, PrePaid Instruments like wallets or using banking or other payments apps directly to/from their bank account. As of July 2018, the list of Payments Operators authorised by the RBI included:

- National Payments Corporation of India, as a Retail Payments Organisation operating National Financial Switch (NFS), Immediate Payment System (IMPS) for retail payments, National Automatic Clearing House (ACH), Cheque Truncation System etc.
- Five Operators for Card Based systems – American Express, Visa, Diners, MasterCard and NPCI (RuPay cards)
- Five Operators for ATM networks – NPCI, Bank of India, Euronet, State Bank of India (only for SBI), NPCI, Punjab National Bank (bilateral between India and Nepal)
- 49 non-banks for issuance of PrePaid Payment Instruments

Card Payments: As of April 2018, there were 38 million credit cards and 906 debit cards outstanding as issued in India. The market is skewed more for credit card issuers than for debit cards. Of the 32 banks that currently have issued credit cards, four banks account for 70% of the total cards outstanding – HDFC Bank, State Bank of India, ICICI Bank and Axis Bank. The debit card ecosystem looks quite different – 54 banks have issued debit cards with public sector banks leading - State Bank of India accounts for 30% of the total debit cards issued, while the other major players – Punjab National Bank, Bank of India and Bank of Baroda each have around 5-6% of debit cards issued.

At the back end, card payment networks, the dominance of global

¹The list also includes Clearing Corporation of India, designated as a Financial Market Infrastructure, providing guaranteed clearing and settlement functions for transactions in Money, G-Secs, Foreign Exchange and Derivative markets.

players Visa and MasterCard has been challenged by the RBI backed, NPCI owned RuPay card. RuPay was launched in 2012 by NPCI “to offer a domestic, open-loop, multilateral system which will allow all Indian banks and financial institutions in India to participate in electronic payments”. The aim was to provide a domestic alternative to the global giant card providers - Visa and MasterCard. From 2014, the card was issued with all PMJDY accounts and has been picked up by new entrants like Paytm Payments Bank as well. By 2017, RuPay had overtaken Visa in market share of the number of cards issued, and is reportedly set to move into second place this year in volume and value of transactions (Economic Times, April 30, 2018). Whether RuPay moves into first place or not, the strategy to have a domestic card player has shaken the hold of the global majors – Visa and MasterCard- in India.

PoS Terminals: Retail payments are made through PoS terminals at the merchant end and there has been a significant rise following the less-cash push of the government from 1.6 million in November 2016 to 3.2 million in April 2018. Here again, we see five banks dominate. As of April 2018, the top five banks with PoS terminals account for 72% of all PoS terminals in the country: State Bank of India (19%), Axis Bank Ltd (16%), Ratnakar Bank (14%), HDFC Bank Ltd (13%) and ICICI Bank (10%).

PrePaid Payment Instruments: Transactions using PPIs (m-wallets, vouchers and PPI cards) have increased from 3.08 million in April 2011 to 350.74 million in May 2018. While there are almost 50 non-bank PPI issuers currently operating, data on market share of these companies is not yet available in the public domain. In addition, there are banks that issue m-wallets. The guidelines on interoperability between wallets have recently been issued (RBI, October 16, 2018), this is a very important step and will enhance the effectiveness of PPIs. It will necessarily impact market structure, and how this will evolve remains to be seen.

Mobile banking: Consumers are increasingly using mobile banking – transactions have increased from 1.08 million in April 2011 to 215.01 million in January 2018 and the number of banks initiating mobile banking transactions has increased from 37 in 2011 to 166 in 2018 (See Graph). Market concentration has been steadily reducing over the years: State Bank of India conducted 80% of mobile banking transactions in 2011, while in January 2018, Paytm Payments Bank took the highest share at 22%. Bank-wise mobile banking transaction data has not been published since January 2018.

The available data therefore shows that at the front end of the digital payments landscape, there is a fair amount of competition, albeit

dominated by a few banks. In the next section, we examine the growing importance of NPCI at the centre of the retail payments system.

Emerging pivotal role of NPCI

The National Payments Corporation of India (NPCI) is fast emerging as the most important payments system in India. The government has tended to favour the use of the NPCI, as an RBI backed entity, and also in part due to its ownership structure where state run banks account for a majority of share holding. Private banks have limited ownership, and non-banks are not a part of the ownership structure at all. The NPCI operates the key switches in retail payments and its services are vigorously promoted by the government, with the latest proposal to give GST rebates on payments through RuPay, UPI, BHIM etc. (Indian Express, August 5, 2018).

The results of the government promotion over the last two years are showing - the value of IMPS transactions crossed INR 1000 billion in March 2018 and stood at INR 1130.1 billion in June 2018. UPI transactions increased from INR 100 crores in November 2016 to cross INR 40,000 crores in June 2018. However preferential treatment not only works against the principle of level playing field, but brings into focus other potential risks that come out of concentration or dominance. Interoperability between wallets has also been routed through UPI and card networks, further raising the importance of NPCI at the centre of India's payments system.

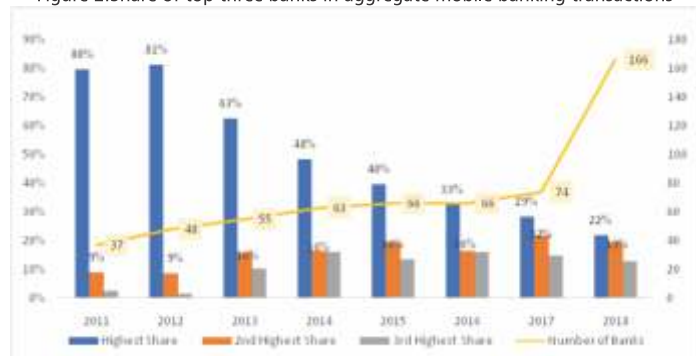
The NPCI is not yet classified as a Financial Market Infrastructure (FMI) which will then have greater regulatory oversight. “An authorized payment system would be categorised as an FMI as and when it reaches systemic importance which could be based on various parameters such as (i) volume and value of transactions; (ii) share in the overall payment systems; (iii) markets in which it is operating; (iv) degree of interconnectedness and interdependencies; (v) criticality in terms of concentration of payment activities etc (RBI, Regulation and Supervision of Financial Market Infrastructures regulated by RBI). Recently, the RBI Governor noted, “In a span of about a decade of its existence, NPCI has gained the status of being a Systemically Important Payment Infrastructure (SIPI). Such a status brings with it added responsibility and I am sure that NPCI will continue to excel in its role of a pioneer payment system provider. I also believe that as a designated SIPI, NPCI will continue to pursue the highest levels of good governance, sustenance, innovation, reliability, and resilience. It should also continually assess the performance of its systems and products by bench marking expected performance metrics in respect of technical declines, business declines, processing speed & capacity, etc.” (Urjit Patel, August 16, 2018).

However, in its Annual Report 2017-18, we find a stark contrast between the way NPCI and CCI are monitored. While NPCI is supervised by the RBI DPSS, there is no public disclosure of the risk assessment and steps taken to mitigate the risks. There is also no visibility into the performance metrics such as technical declines, business declines etc, that the Governor has referred to in his speech. Further, any governance and HR issues raised by RBI etc may be more advisory in nature than mandated.

THE WAY FORWARD

When it comes to concentration in the retail digital payments space in India, while most segments are competitive, NPCI has become the main cog of the entire system, managing the dominant platform and

Figure 2: Share of top three banks in aggregate mobile banking transactions



key products. While there are definite advantages to this critical emerging role of the NPCI, certain reforms in governing its functioning must be initiated.

To begin with, there is a case for the NPCI to be dealt with as public good. Hence, in its communication with the Inter-Ministerial Committee for Finalisation of Amendments of the PSS Act, 2007 (Ministry of Finance, Government of India, August 2018), the DFS had recommended that there should be public/ government ownership of at-least 51% equity ownership in the NPCI and nominee directors on the board. However, the Inter-Ministerial Committee did not agree with this recommendation. It categorically stated that the government should not get involved into the ownership and management of payment systems and infrastructure systems, "if the concerns can be addressed without that", and further went to recommend that the NPCI should be dealt with as an infrastructure system, with governance rules applicable to all designated payments and infrastructure systems. The view of the Committee is the appropriate way forward for India. Rather than increasing direct participation of the government in governance of payments system providers, we need a regulatory framework that focuses on ensuring the key principles guiding competition, keeping financial stability and customer protection at the front.

As a first step, banks and non-banks should get a voice on the current dominant platform. This calls for broad-basing the governance at NPCI, beyond just extending shareholding to other banks and includes participation by non-banks. Both the Watal Committee Report and the RBI are in sync with this recommendation, and a roadmap for the same must be laid out.

- A formal forum where banks, non-bank payments operators and NPCI meet regularly must be instituted at the earliest. This would be best done under RBI stewardship; the objective being that as NPCI

steadily achieves dominance, the voice of other players is also heard in deciding on the rules that govern the ecosystem. Further, an Ombudsman must be appointed to arbitrate between NPCI and the other players in the digital payments space for more fair mechanisms.

- All segments of the payments systems must have clear rules and time bound processes for on-tap entry and exit. While most segments are currently open, the RBI must set a clear road map to allow entry into settlement operations/switches, to allow for potential competition to NPCI in the long run.
- The government must follow the Watal Committee recommendation for legal changes to classify NPCI as a Critical Payment Infrastructure Company (CPIC). When classified as a CPIC, NPCI would be bound by the principles of the CPSS-IOSCO Disclosure framework and assessment methodology. This will bring transparency into performance metrics and governance. Meanwhile, the RBI DPSS should make public the risk assessment of NPCI and the steps taken by the NPCI as advised

The crucial issue of separation of platform from product has been specified in the RBI guidelines when setting up the Bharat Bill Payments System. However, this separation remains to be addressed across the board for all segments in the payment process. The digital payments ecosystem is still in its early phase of evolution in India, and great innovation can still come from outside of NPCI, if it is allowed to. Concentration, whether public or private, can impact both competitiveness and innovation and over-dependence on a single platform has its risks, even if in the public sector. The way forward lies in ensuring interoperability, open access and free entry and exit, under transparent monitoring and supervision.

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² Take the case of China where the new clearing platform, WangLian has a stake from Alipay, Tencent etc. Though WangLian is a non-bank payments settlement house, of its 45 shareholders, seven are backed by the Central Bank and hold 37% stake. The remaining 63% is held by third party-payment companies based on the scale of their transactions and the contribution they made to set up the platform. (Six Payment Providers Secure Board Seats at WangLian, China's New Non-Bank Settlement Platform, YICAI, August 23, 2017, available at <https://www.yicai.com/news/six-payment-providers-secure-board-seats-wanglian-china%E2%80%99s-new-non-bank-settlement-platform>)