CGAP

An Overview of the G2P Payments Sector in India

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CGAP has an ongoing focus on branchless banking in India and on G2P globally. The authors of this note visited India from June 27-July 1, 2011 to gain a better understanding of the G2P space as it relates to financial inclusion. This note is a summary based on the visit and the meetings held with various stakeholders.[1] Our aim was to attempt to organize in one place a cross-cutting look at G2P from a national policy perspective. We have not attempted to offer an exhaustive analysis of all the issues around G2P in India nor the details of particular schemes, and we have deliberately avoided specific policy or business prescriptions. We hope this document is a useful overview that provides a structured framework for thinking about the complexity of G2P across various actors.

Government to person (G2P) payment schemes present an opportunity to provide access to financial services to unbanked beneficiaries by channeling a consistent flow of money into financial accounts. Branchless banking is one way to make such payments and services more accessible while at the same time decreasing the cost and increasing the efficiency of the payment process itself. Although this is a concept whose potential has been discussed at length, there are only a few countries that have experimented in making this link between government payments and bank accounts, and even fewer that are doing it at scale.

India is one country that falls into this latter group (others include Brazil, Colombia, Mexico, South Africa). The Indian G2P sector is complex due to not only the various schemes that exist, but also due to the complex interaction between the central government and the state governments in the management and implementation of these schemes.

Summary of Key Insights

- State governments exercise significant control over the management and administration of central government-mandated G2P schemes.
- Much of this control impacts the significant variability in bank fees paid by state governments. Many states do not pay banks any fees for disbursing government payments.
- For banks, the primary motivation for paying G2P beneficiaries, aside from the government mandate itself, is not the potential revenue or the access to a new client base, but rather the possibility of future business with the government.
- To make the business case work better for banks, the challenge is to activate no-frills accounts and to develop new products. Banks seem particularly interested in credit, although they are uncertain how to best offer it to this client segment.

[1] This note is based on in-person conversations with representatives from 20 organizations in India, including public and private banks, business correspondent network managers, policy makers, multi-laterals, technology and infrastructure providers, consultancies, and government.

- The variability in state government compensation also affects Business Correspondent Network Managers (BCNMs) that continue to struggle to strengthen their business models as they consider the level of compensation they must pass on to customer service points.
- Despite the use of electronic payments and front-end technology solutions in the payment process in many states, there continues to be an inherent messiness to the entire G2P payments space in India in terms of manual reconciliation, lack of standardization, duplication, and lack of coordination among various stakeholders.
- Several new initiatives could bring more order to the fragmented state level systems. The continued roll-out of the unique identification number (known as the "Aadhaar" number) by the Unique Identification Authority of India (UIDAI) will enable the central government to post the payments due to beneficiaries to NPCI's (National Payments Corporation of India)[2] central Aadhaar Payments Bridge (APB) platform instead of at a state by state level simply by having a beneficiary's Aadhaar number and payment amount. The Aadhaar number will also facilitate Know Your Customer (KYC) verification for account opening.
- Both the Interbank Mobile Payments Service (IMPS) and Aadhaar Enabled Payment System (AEPS) platforms have the potential to integrate the payment systems of various G2P schemes and enable the mobile phone to be used more consistently as the front-end technology instrument.
- Even these new initiatives, however, will face technical limitations and political challenges. The central management of payments depends on the efficient data collection at the field level by the programs themselves, a process over which NPCI and UIDAI have little control. Likewise, individual state-run schemes will be more difficult to incorporate into this central system.
- The central government is investigating distribution alternatives for fuel and fertilizer subsidies, potentially converting these in-kind transfers to direct cash transfers, which would add tens of billions of dollars of cash volumes into the G2P ecosystem.

Overview of Government Payment Schemes[3]

Government payment schemes in India are organized into three categories: welfare schemes, government salaries, and small savings schemes. The largest flow of payments comes from traditional welfare schemes which themselves break down into those that provide direct cash, subsidies, and services. In 2008-2009, 22 welfare schemes paid out a total of $65 billion. What follows is a quick overview of some of the largest welfare schemes in each of these three categories.

Direct Cash: The most prominent cash welfare scheme in India is the National Rural Employment Guarantee Scheme (NREGS), which provides employment to qualified rural households for 100 days per year. NREGS has a yearly budget of $6.7 billion and is administered by the Ministry of Rural

[2] NPCI is a section 25 company (nonprofit) formed in 2009 by the RBI and funded by contributions from ten banks. Its mandate is to manage the payments infrastructure of India (ATM, POS, etc.) and over time NPCI is expected to create an ACH to replace the current RBI-managed system.

[3] The data for this section is drawn largely from *Inclusive Growth and Financial Security: The benefits of e-payments to Indian society*; McKinsey & Company, November 2010.

Development. Other schemes that provide direct cash transfers include Indira Awaas Yojana (IAY), a rural housing subsidy, and the National Social Assistance Programme (NSAP), which includes the National Old Age Pension Scheme (NOAPS) (known more commonly as SSP (Social Security Pensions)).

Subsidies: Welfare subsidies include 12 schemes, the biggest of which is the Department of Public Distribution's Targeted Public Distribution System (TPDS) for national food security. Fertilizer subsidies from the Ministry of Chemicals and Fertilizers also account for a large proportion of welfare subsidies ($16.9 billion out of a total of $30 billion for all subsidy programs). Swarnjayanti Gram Swarozgar Yojana (SGSY) provides income-generating assets through bank credit and government subsidy from the Ministry of Rural Development.[4]

Services: Welfare services to individuals include several schemes that provide payments to service providers that then deliver services or supplies directly to beneficiaries. The Ministry of Human Resources promotes universal primary education through the Sarva Shiksha Abhiyan (SSA) program by paying for school infrastructure, teacher salaries, and school supplies. The Ministry of Health and Family Welfare provides various health schemes including Janani Suraksha Yojana (JSY) which provides rural women with financial incentives to have safe childbirths. Rashtriya Swasthya Bima Yojana (RSBY) is a health insurance scheme offered by the Ministry of Labour and Employment for below-the-poverty-line (BPL) families.[5]

More recently, the National Rural Livelihood Mission (NRLM) was launched in June 2011 and aims to create self-help groups in rural areas and enhance poor families' livelihood options through access to easy loans, capital grants and skills training. NRLM seeks to offer more sustainable livelihoods to households that rely on NREGS.[6]

Individual state governments also run their own welfare schemes independent of those sponsored by the central government.

Out of all of these welfare schemes, the two that dominate the G2P payments space for banks and BCNMs are NREGS and SSP.

Stakeholder Analysis & Process Overview

Given the vast number of government payment schemes at various levels of government, there is a similar complexity in the stakeholders that are involved.

- The ***central government ministries*** manage a particular G2P scheme. For example, the Ministry of Rural Development manages NREGS;
- The ***state governments*** receive the mandate from the central government to implement the scheme, receiving approximately 6% of the program's budget for administrative fees. For

[4] http://india.gov.in/govt/viewscheme.php?schemeid=211
[5] http://www.rsby.gov.in/index.aspx
[6] http://articles.economictimes.indiatimes.com/2011-06-04/news/29620809_1_nrlm-national-rural-livelihood-mission-rural-women

example, the Ministry of Rural Development in Andhra Pradesh directly manages the implementation of NREGS on behalf of the central government ministry;

- The ***banks*** work on behalf of the state governments to manage the payments process to beneficiaries. Most commonly, governments provide the funds to banks, who funnel payments into beneficiaries' no-frills accounts for withdrawal, although some payments are still made as direct cash disbursement not linked to accounts. For example, the AP government has a contract with Axis Bank, among others, to manage the entire NREGS payments process;
- The ***BCNMs*** work on behalf of the banks to process cash withdrawals from beneficiaries' no-frills accounts. For example, Axis Bank has a contract with FINO to deliver NREGS payments to beneficiaries in AP.
- The ***customer service points (CSP)*** work on behalf of the BCNMs as the last-mile touch point with the beneficiary to provide the actual cash payment. For example, FINO directly manages 12,400 CSPs throughout India that make payments and deliver financial services to NREGS beneficiaries and other clients.

At various points along this payment process, issues are raised about the type of technology that is used at the retail level, the platforms that connect the various systems used by stakeholders, the implications of regulation, the payments and financial services that are offered, the fees that are paid, and the overall business case for the profitability of the banks, BCNMs and CSPs. There are several new initiatives in the market that affect many of these issues.

At the platform level between the government and the banks, NPCI is building the Aadhaar Payments Bridge to enable the central and state governments to disburse G2P payments, integrated with the Unique Identification Authority of India (UIDAI), by using the beneficiary's unique identification number (known as an "Aadhaar" number) and a bank identification number. Once the beneficiary's account gets credited, the beneficiary can withdraw the payment through the bank's BCNM and CSP network using the Aadhaar Enabled Payment System (AEPS), a new service that enables the receipt and transfer of funds at CSP locations using a customer's Aadhaar number and biometric authentication.

The perspective of each of these stakeholders is described in more detail below.

Central Government

Different ministries within the central government manage the various welfare schemes in India. The Ministry of Rural Development oversees the largest proportion of programs, but other relevant ministries include the Ministry of Finance (for Social Security Pensions), the Ministry of Chemical & Fertilizers (for fertilizer subsidies), the Ministry of Public Distribution and Consumer Affairs (for the Targeted Public Distribution System), the Ministry of Health and Family Welfare, and the Ministry of Labour and Employment. While the mandate, design and strategic direction of these programs are managed at the central government level, the central government delegates the implementation to the state governments.

The new Minister for Rural Development, Jairam Ramesh, is a high profile politician in Congress. Press reports indicate that he may push reforms of NREGS to encourage more electronic payments and to tackle the leakage problems. He has even hinted at the possibility of additional fees for banks to supplement the 2% fee they (sometimes) receive.

State Governments

One of the defining features of the G2P space in India (and many other industries in India for that matter) is the complex interaction between the central government and the state governments in the management and implementation of government welfare schemes.

In India, state governments exercise a significant amount of control over the system. Although the central government pays state governments a percentage of a scheme's budget for administrative costs, the state government ultimately decides how much of this it uses to compensate the banks as the payment service providers.

The implication of this, of course, is that there are many states that do not pay banks to disburse government payments, and instead believe this to be a public service obligation of banks. (For banks, the primary motivation to cooperate may not be the lure of fees, but rather the possibility of managing more government accounts in the future.) As a result, banks often do not generate direct revenue from G2P disbursements and so are reluctant to compensate adequately the BCNMs, which in turn are not able to compensate adequately the CSPs. Many perceive this to be a suboptimal arrangement but there is not a unified voice urging state governments to share their funds from the central government: on the one hand, we heard that the RBI had instructed state governments to pay, while on the other hand the Ministry of Rural Development had instructed them not to (at least prior to the appointment of the new Minister).

Despite the lack of or low fees, state governments further expect banks to jump through additional hoops beyond merely making the disbursement. One bank had been asked by several governments for reports indicating when payments were actually drawn from the individual no-frills accounts, not just when the money had been deposited into those accounts by the bank. This bank pushed back on this request since it would have been too cumbersome to comply with.

However, this seems to be the pattern by state governments. Their current emphasis is on ensuring that the G2P benefits reach the correct beneficiary in cash in a timely manner through a BC-led channel. Many state governments have mandated partner banks to disburse the cash payments to beneficiaries within a defined timeframe of between three to five days. This mandate turns no-frills accounts into more of a pass-through account and not one, as one bank explained, that can actually be used for savings. To be fair, there exists great political pressure for governments to avoid accusations of underpaying beneficiaries, and requiring full disbursals is an easy way to ensure this.

Yet the overall impression from banks and BCNMs is that the state governments do not have a good understanding of the BC model as an innovative way to expand access to financial services, and are therefore reluctant to pay for it. State governments understand the current costs of accounting and disbursing funds mainly in the form of human resources. In the absence of a credible analysis of cost savings and efficiencies from the BC model of e-payments, state governments remain hesitant to increase the fees paid to banks. They also overestimate the revenue that banks can earn from the float and from cross-selling to a new client base.

Banks

There is a long list of banks that distribute government payments, including some of the largest public and private sector banks. Despite the volume of payment flows going into an increasing number of no-frills accounts, the G2P business case for banks is still very uncertain. Banks that have been distributing G2P payments for some time choose to work only in states where they receive compensation. For example, Axis was one of the first private banks to do this and now only works in states that pay, such as AP which offers a 2% commission on G2P disbursements. If SBI uses the BC model of payment, they require payment from the state governments; whereas if they use branches, they do not receive payment. The manner in which states pay can vary however; Orissa pays SBI Rs. 2,500 per CSP instead of a percentage commission.

Other banks cannot be as choosy and newcomers to this space, like ICICI, must work in states where no compensation is offered in order to get their foot in the door. They seem to justify the business activity by arguing that they are building out the infrastructure and making an investment in rural development.

Of course, the usage of no-frills accounts, not just the uptake, is the goal of banks. SSP payments are actually more regular than NREGS payments since they are guaranteed every month, whereas NREGS payments are dependent on the amount of work completed and are often seasonal. ICICI has observed that activation rates, account balances and the number of transactions are higher with SSP-linked no-frills accounts. If payments simply pass through the account, without additional transactions or steady account balances, banks do not hold the float long enough to provide revenue. The usage of the accounts (and the accompanying fees generated) is therefore a key component of the business model.

But one of the many challenges, as described above, is that the current emphasis of state governments does not facilitate a business model based on account activity. When payments are credited to beneficiaries' no-frills accounts only to be fully disbursed within a few days by the banks at the request of the governments, there is little potential for increased usage.

Ultimately in the absence of a strong direct business case, banks continue to be engaged in the G2P space to remain in good standing with the government and to position themselves for other government opportunities.

Business Correspondent Network Managers

Like the banking sector, there is a long list of BCNMs that work on behalf of banks to distribute G2P payments to the end beneficiaries through their network of customer service points. FINO is the largest of these companies, having opened over 20 million no-frills accounts and providing services for 23 banks, 10 MFIs, 5 insurance companies, and 17 government agencies. It reaches 309 districts through

12,400 transaction points, and serves 4 million NREGS and SSP beneficiaries in 5 states.[7] A Little World has 8 million no-frills accounts, 5.2 million of which are held by SBI. Other significant BCNMs include SEED, BEAM, Eko (who has only just started processing G2P transfers in Bihar), and Sub-K (affiliated with Basix).

BCNMs and their corresponding CSPs are responsible for many critical activities in the payments process, namely the enrollment of beneficiaries, KYC compliance for no-frills account opening (though banks remain ultimately liable under regulation), smart card issuance and distribution, point-of-sale deployment to CSPs, cash disbursement to beneficiaries, and MIS submission and reconciliation. In addition, CSPs serve as the bank's main point of contact with the beneficiaries, and therefore play an essential role in any bank's strategy to acquire new clients or sell additional products and services.

Since BCNMs receive their revenue from the banks, the problem of compensation (or lack thereof) from the state governments affects their business model. Several BCNMs have the impression that banks do not push back enough on state governments to demand compensation because there are lines of banks that governments can turn to as alternatives. As a result, the business model is weak for most of these BCNMs. Some of them, however, negotiate contracts on the basis of a breakeven minimum revenue per account, hoping for a flat fee to compensate for the per account expense. In the current context, it seems that the viability of banks and BCNMs rests on building beyond the G2P business to a broader range of products and services for this client segment.

Currently, BCNMs see themselves only as service providers to banks, but some BCNMs wish that the customer belonged to them instead of to the bank. This would enable them to directly offer products and services to customers in order to make their business case stronger. Under this scenario, the BCNMs would perform the KYC to open accounts and would take on the risk and return of any products they offer. However, regulation still requires a bank-based approach which complicates the nature of the relationship BCNMs are able to develop directly with customers.

Main Challenges

There are several challenges that emerged from our discussions with various stakeholders.

Operational challenges: Despite the use of electronic payments and front-end technology solutions, there continues to be an inherent messiness to the entire G2P payments space. There is a lack of integration among the various initiatives and among their implementation at the central and state levels of government. Although the government tells banks not to pay beneficiaries without an account, this is problematic in practice since beneficiaries would have to wait for their payments only after they have signed up for and opened their account, a process which can take several weeks since the physical registration papers have to make their way back to the bank branches. As a result, some payments and reporting still have to be carried out manually.

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[7] http://fino.co.in/

The manual systems of the weaker state governments also make the payments process difficult, and often require the banks and BCNMs to convert the records to an electronic system themselves. One of the biggest operational challenges is simply mapping the right person to the right payments and avoiding duplication, multiple accounts and ghost accounts. Many of these operational problems emanate from the outdated tools used for data capture and digitization including the work reports from NREGS. As one BCNM put it, an electronic payment system is only as robust as the information that is fed into it. Integration into new e-payment platforms still brings reconciliation hassles.

Even with the use of technology, operational challenges persist on the front-end side of the payments process as well. Most beneficiaries are mapped to particular CSPs, only allowing the beneficiary to transact at that particular transaction point. In the case of NREGS, government procedure requires that a muster role be issued listing beneficiaries, their payment amount and the specific CSP that is assigned to make that payment. The CSP is required to collect the signature of the beneficiary, effectively creating both a manual verification process in addition to the biometric verification that the technology enables. In addition, CSPs are not permitted to service multiple banks per the current regulation.[8]

Another front-end operational challenge is that most payments are carried out in offline mode whereas online payments in real-time would greatly simplify the payments and reconciliation process. Beneficiaries could have greater flexibility in the number of CSPs that disburse the payments and BCNMs would have a quicker reconciliation process with the banks and state governments.

There are two main reasons why payments are made in offline mode. First, there is an absence of a single entity for centralized biometric authentication. Each BCNM deploys its own proprietary, closed-loop application for smart card authentication, rendering the reconciliation process difficult for the banks. The smart cards that are issued with offline functionality are not integrated into the mainstream financial infrastructure, rendering them useless for ATM withdrawals, merchant payments and other financial transactions. Mobile solutions have not yet gained enough ground to offer more flexible payment options to the beneficiaries, especially since the payments are not integrated into the infrastructure of NPCI, such as IMPS or AEPS.

Second, the network connectivity infrastructure does not extend to all rural locations, making real-time online transactions impossible. All of these challenges significantly limit the ease of accessibility that branchless banking models attempt to create for customers and the ease of operations for the payment service providers.

Political challenges: Many state governments appear to have very little incentive to weed out the corruption and duplication that result from the operational messiness of the system, which conveniently masks some of the leakage that electronic systems intend to uncover. Initiatives that seek to clean up the system may very well meet with resistance from some governments which lack the political will for reform.

[8] Regulations indicate that "(w)hile a BC can be a BC of more than one bank, at the point of customer interface, a retail outlet or a sub-agent of a BC shall represent and provide banking services of only one bank." (Circular 217, September 2010).

Business case challenges: One wonders how long banks can take a loss on the G2P business while waiting for more government contracts. Banks seem intent on determining how best to extend credit to G2P beneficiaries beyond simply overdrafts on no-frills accounts since they see credit products as potential money makers. One wonders the same about the business case of the various BCNMs that all seem to be in fundraising mode, looking for capital to keep their businesses running. The same question arises with how long CSPs will continue to provide door-step banking simply out of a desire to provide a service to their community before they start asking for more compensation, especially given the risks associated with handling large volumes of cash and ensuring sufficient liquidity at the time of disbursal. Although the massive flow of G2P payments could provide a strong basis for a positive business case, the lack of consistent and adequate compensation from governments constrains the potential.

Looking Ahead to Opportunities

There are several initiatives on the horizon in India that may respond to some of the G2P challenges we've identified.

NPCI platform: Plans for NPCI's central platform, the Aadhaar Payments Bridge, has the potential to solve many of the operational challenges in the system. Payment records will be posted directly from the central government to NPCI's platform and sent directly to the bank. The platform is designed to manage various accounts that beneficiaries have at multiple banks from several government welfare schemes. In effect, state governments' control over the flow of information will be averted. There is some skepticism from different stakeholders about the feasibility of this central platform not only because of the monumental technical task it entails, but also because of the resistance that will surely be raised by the state governments.

UIDAI expansion: The expansion of the UIDAI initiative may also address some of the operational challenges. The existence of a ubiquitous identity mechanism should streamline account-opening and transaction authentication since the Aadhaar number will serve as KYC for all, and reduce existing fraud and account duplication. The Aadhaar number can be used to identify a beneficiary and verify the payment amount they are due via the Aadhaar Payments Bridge. UIDAI is also pushing for a uniform set of "micro-ATM" standards to guide the industry. UIDAI does not wish to dictate technology, but does wish to ensure common standards and the ability to interconnect.

IMPS and AEPS platforms: An initiative of NPCI, the Interbank Mobile Payments Service (IMPS) enables instant interbank electronic fund transfers through a customer's mobile phone. The IMPS development was launched in May 2010 and went live in November 2010, an incredibly quick turnaround for such a complex project. There are now 28 banks on the system, and while uptake for transactions has been slow due to lack of general awareness, there is excitement about its potential in the market. Currently IMPS only enables person-to-person transfers, though NPCI plans to soon launch merchant payment functionality. The Aadhaar Enabled Payment System (AEPS) is similar to IMPS but uses a customer's UID (or Aadhaar) number for authentication and verification. AEPS is focused on excluded populations and on channeling government payments. AEPS has also integrated with the NPCI "RuPay"[9] card, which enables a customer to use the card for transactions at more than 80,000 ATMs across India as well as at micro-ATMs (at CSPs). Both the IMPS and AEPS platforms have the potential to integrate the payment systems of various G2P schemes and enable the mobile phone to be used more consistently as the front-end technology instrument.

In particular UIDAI and AEPS have the potential to solve some of the operational challenges linked to offline payments reconciliation. While only time will allow the extension of network connectivity into even more rural areas, where network connectivity already exists, AEPS and the Aadhaar Payment Bridge can establish a centralized transfer channel and authentication platform that will ease the reconciliation process for banks.

Despite the promise of these various platforms, it is important to mention several technical and political challenges that lie ahead. Technically, the promise of a centralized management system for G2P payments and no-frills accounts depends on quality field data from the programs themselves. Furthermore, centralization can only be achieved for those programs that the central government controls itself, not for those initiated by state governments. Politically, the UIDAI initiative has the potential to impact existing vested interests.

Cash transfers of fuel and fertilizer subsidies: The Government of India recently announced the creation of a committee (chaired by Nandan Nilekani) to investigate distribution alternatives for fuel and fertilizer subsidies. Currently these subsidies are distributed through the Public Distribution System, but many people are excited by the prospect to leverage key ICT innovations, the expansion of the BC model and the spread of UID to convert these in-kind transfers to direct cash transfers. The committee released an interim report on the initiative in July. Nilekani was reported as saying that "the report announce(s) a common subsidy management platform that can be used for any kind of subsidies both for goods as well as for cash, essentially using technological based solutions to reach million of Indians to help them get their subsidies on time."[10] While this initiative has the potential to add more cash volumes into the G2P ecosystem, there is also general acknowledgement that this will be a sticky political issue and one that will take some time to fully develop.

Common Service Center expansion: The central government has established an initiative to set up 250,000 common service centers (CSCs) to serve as locations to provide government services and government payments in all 600,000 villages in India. Already over 95,000 CSCs, each covering six villages, have been set up as of mid-September. Once the number of CSCs reaches the target of 250,000, each CSC will cover two villages. Over 22 companies have signed up with the government to operate the centers, and many companies see these centers as additional points of access to complement existing CSP locations for the purposes of financial services, including G2P payments. Some of these companies

[9] RuPay is a new homegrown payments processor, intended to provide similar services as Visa and MasterCard but at a lower cost. Currently, RuPay only operates domestically in India but has longer term aspirations of becoming globally accepted.

[10] http://www.moneycontrol.com/news/cnbc-tv18-comments/nilekani-codes-to-improve-subsidy-delivery-for-aam-aadmi_562862.html

are also enrollment agencies for UIDAI and have commenced Aadhaar enrollment at their CSCs. NPCI has submitted a proposal to the Department of Information Technology (DIT) to link CSCs to IMPS and AEPS to facilitate interoperability. DIT is also approaching the Reserve Bank of India to permit each CSC to be an outlet for multiple banks.

Conclusion

India is one of few countries around the world that is implementing financially-linked G2P payments at scale. In addition, these schemes are using branchless banking systems of BCNMs and CSPs to make the final payments to beneficiaries outside of bank branches. Already this is a huge accomplishment. Yet there are still many obstacles to the system and significant challenges exist around its viability.

The main challenges stem from the variability in fees that banks receive from state governments to deliver G2P payments to beneficiaries. The branchless banking-enabled payments value chain includes many mouths to feed from banks to BCNMs to CSPs, but not enough money is entering the system to fully satisfy all parties. Inactivity of no-frills accounts continues to be a challenge that banks are up against, along with developing innovative financial products that can be affordably offered to clients while responsibly managing risk. BCNMs struggle to manage and retain thousands of customer service points and deploy expensive biometric technology for offline payments.

Yet India is a dynamic market that produces new initiatives at a fast pace. NPCI and UIDAI could very well change the way G2P payments are managed and implemented. The possible shift from in-kind subsidies of fuel and fertilizer to cash could add significant volumes to the pool of G2P payments. But the technical challenges and political opposition to all of these new schemes could undermine or seriously delay their impact.

India has already answered a lot of questions about the link between G2P payments and financial services, and is appropriately viewed as a global example. Further experience and new experimentations will hopefully answer questions raised about the type of technology that is used at the retail level, the platforms that connect the various systems used by stakeholders, the implications of regulation, the payments and financial services that are offered to the unbanked, the fees that are paid, and the overall business case for the profitability of the banks, BCNMs and CSPs.