BETTERTHANCASH ALLIANCE | *Empowering People Through Electronic Payments*

BTCA case study no. 5

EVIDENCE PAPER

July 2015

Leaving money on the table:

Corporate and SME experiences of digitizing business payments in the Philippines

by James Hokans, Bankable Frontier Associates

ABOUT BTCA

The Better Than Cash Alliance (BTCA) is an alliance of governments and private sector and development organizations committed to replacing the use of cash payments with electronic payments, where appropriate, and to promoting a "cash-lite" economy.

Shifting payment of salaries, social welfare and relief payments, payments to suppliers, remittances, etc. from cash to electronic has the potential to improve the lives of low-income people, particularly women, while giving governments, the private sector and the development community a more transparent, time- cost-efficient, and often safer means of making and receiving payments.

The Better Than Cash Alliance:

1. advocates for the use of all forms of electronic payments where they provide a preferable payment option to cash;
2. collaborates with program partners to mobilize available technical expertise and resources to identify and implement the most effective approach to make the transition from cash to electronic payments; and
3. conducts research, documents good practices and produces knowledge products to address the barriers to adoption and drive the effective shift from cash to electronic payments globally.

BTCA's Development Results Focused Research Programme (DRFRP) accelerates the generation and dissemination of knowledge and tools for stakeholders transitioning part of their payments from cash to electronic. The DRFRP has three components: 1) Readiness diagnostics, which compile existing data on the volumes, values, and payment means for each kind of payment made by governments, the private sector, and development community partners, and assess the country's readiness to replace cash payments with electronic payments; 2) Case studies of on-going shifts; and 3) Toolkits to provide practical steps for BTCA stakeholders to plan, measure and implement shifts.

The DRFRP is managed, on behalf of BTCA, by a consortium led by Bankable Frontier Associates, a Boston-based consulting firm, with advice from experts from the World Bank Payments Group and the CGAP Technology Team, as well as local research staff.

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BTCA CASE STUDY SERIES

The BTCA case study series seeks to highlight specific examples of shifts to electronic payments by government agencies, businesses or development partners. Each case study documents the extent of the shift and the factors that have helped or hindered it, in order to provide insights which are relevant to a wide readership interested in how to shift from cash to electronic payments.

AUTHORS

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Every effort has been made to limit the number of technical errors, which are the sole responsibility of the author.

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Note: Exchange rate conversions made at the rate of 1 USD to 45 PHP (as of 26 September 2014).

1 Executive summary

1. The BTCA Country Diagnostic for the Philippines, completed in 2013, found that while many medium and large businesses paid their employees digitally, very few business-to-business payments were made digitally.

2. This case study builds the evidence base regarding business payments in the Philippines, the incentives businesses face, and what it would take to shift corporates decisively to digital payments. The case draws on in-depth interviews with commercial banks and Filipino corporates, complemented by a survey of 400 small businesses employing between 2 and 25 people in Metro Manila in 2014.

3. While the Philippines payments system offers digital payment instruments like inter-bank electronic credit and debit transfers, checks remain by far the most widely used interoperable payment instrument. Instead of using electronic inter-bank transfers, businesses tend to open multiple bank accounts with different banks and then initiate on-us payments to suppliers at their own banks. One of the Philippines payment networks (BancNet) does offer low value credit transfers in real time between payment card accounts, but these are little used.

4. From interviews with Filipino corporates across sectors, it appears they are looking for the following characteristics in payment instruments:

   - Acceptance from the payee (which implies convenience and low or no cost structure for recipient);
   - Clear rules on recourse and liability; and
   - The ability to provide information with the payment to ease reconciliation.

These characteristics are no different from those found in other surveys of businesses around the world, such as in Canada and the US. Filipino businesses understand the high administrative costs they face but are unable to make the switch today. In this regard, they differ from Nigerian corporates of equivalent size, which have largely accepted the need to shift, and the inevitability of shifting, and are making steps in this direction — albeit in an environment where policy and costs promote their doing so.

5. A typical medium to large Filipino business drawing 1,000 checks per month to suppliers could save 25% of its invoice handling costs if it shifted half of those payments to electronic transfers (direct credits) on current terms. A full shift to digital payment and processing would save 46%. However, a large portion of the savings may come simply from eliminating manual checks: adopting auto-check payments, authorized online, may give as much as 41% cost savings. And this would let businesses keep the check float without having to persuade suppliers to accept electronic payments, for which the payer and especially the payee would have to pay high and often non-transparent fees. The incentives in the current environment for corporates to move away from checks as a payment instrument are not strong.

6. Even if corporates do not fully perceive the costs of the checks they use, banks bear high costs from this system. There are no accurate figures for the costs of payment instruments in the Philippines today. However, estimates from Europe and Australia, adjusted for PPP, suggest that a switch from check to direct credit would save the banking sector $1.52 per payment. If all the checks cleared in 2013 were to switch to the lower cost instrument, the sector could save $272 million or 8.5% of the net profit after tax of the entire banking sector in 2013. Even if the position of individual banks would vary with market share and customer base, this level of savings would suggest that the sector as a whole has an incentive to revise its digital fee structures to persuade corporate customers to switch away from checks.

7. At a level below the corporates interviewed, a survey of small but largely formal businesses (turning over $2,900 per day on average) shows that a high proportion of them function almost entirely in the cash economy, not even able to use checks: 70% have neither a corporate nor an owner's personal bank account. This high unbanked level translates to very low levels of electronic payments. Only 1% of the businesses paid employees electronically; the same low level of digital payments was true in other categories of payments.

8. Three key factors impede a transition to more digital payments in the Philippines:

   - The need for a value proposition for businesses to have an account;
   - The need for banks to market electronic payments convincingly and play an active role in on-boarding a wider SME customer base; and
   - The need for more transparent pricing for both payer and payee.

9. Although the Philippines has been a world innovator in certain categories of payments (such as mobile), the state of digital corporate payments reflects a low

level equilibrium trap: the level of digital payments is low; and the incentives to change are not yet aligned among many banks and their customers. As a result, major energy is required to shift corporate payments from this state. The government, through the Central Bank, is already playing a coordinating role to improve the interoperability of electronic instruments. This case study suggests that this action will help but alone is unlikely to be sufficient.

2 Introduction

Despite the concerted interest of the Bangko Sentral ng Philipinas (BSP) in the promotion of digital payments, the current payments ecosystem in the Philippines constrains the options of businesses, in particular, to digitize their payments. Many large and medium-sized businesses already pay salaries electronically but have to open accounts at many banks to avoid the high fees and other disincentives associated with inter-bank digital payments. In the case of suppliers, the lack of a suitable, widely used inter-bank transfer solution means businesses overwhelmingly still use checks and manual processes to pay their suppliers. This situation is a major drain on corporates: BTCA estimates that it costs medium-sized Filipino companies US$6.11 (PPP adjusted) per invoice to process these payments manually and pay by manual check.

The lack of movement in digital payments for businesses in the Philippines stands in contrast to recent developments in Colombia and Nigeria, described in two recent BTCA case studies. In Colombia, the banks (with the encouragement and contribution of the government) jointly developed an online platform for inter-bank transfers that is increasingly used by businesses to accept payments. In Nigeria, the government's "Cashless" policy has, in part through a system of penalties on cash handling imposed through banks, changed large businesses' incentives and encouraged them to innovate in how they make and receive payments.

In the Philippines, though, the achievements by the BSP in implementing the real time gross settlement system for large value payments have yet to be matched by policies that drive real change in retail payments. "Our vision is to see the rapid development of a widespread, efficient, and low-cost e-money ecosystem that links government, businesses and people efficiently in a 'cash-lite' world of financial transactions," BSP Deputy Governor Nestor Espenilla has said. "Cash will always be around but it will become increasingly less important in commercial and governmental financial transactions."[1]

According to the BTCA Country Diagnostic of the Philippines, business-to-business payments represent the largest single pool

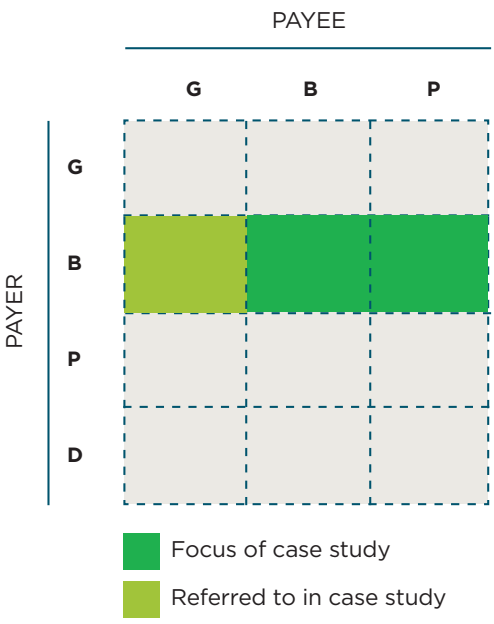
of non-digital transactions by value. Business payments are still overwhelmingly conducted in cash and checks, due in part to the incentives, or lack of incentives, provided by the banking system to adapt. Some banks offer their corporate clients check-processing services that track and print Creditable Withholding Tax certificates. These certificates are given to the suppliers together with the check payments. Suppliers need the certificates as evidence of taxes paid when audited by the Bureau of Internal Revenue. Banks also offer intra-bank digital salary payment services. These services preserve banks' existing, profitable business lines but are likely inefficient for many corporate clients, as well as for employees who may not opt out of opening an account in a bank specified by their employer.

This case study about business payments in the Philippines draws on interviews with three medium-sized businesses that all face high costs for making payments, especially to their suppliers, because of the lack of clear policy or a push by banks to change. Information obtained from these sources has enabled the calibration of a calculator that estimates payment costs under different scenarios. The case also uses data from a survey of 400 small, retail-facing businesses in Manila. Most of these businesses function almost entirely in cash and do not use either a business or a personal bank account.

Banks do not market electronic payments convincingly to their corporate clients, and small businesses do not see a value proposition in opening an account or using electronic payments.

As Figure 1 below shows, this case study focuses on payments from businesses to their suppliers of goods and services, as well as from businesses to their employees.

FIGURE 1 **Payment grid and focus of case study[2]**



G = Government; B = Business; P = Individuals; D = Devlopment partners

The first section presents the current methods available for large and medium-sized businesses to make payments to employees and suppliers. The next section examines three ' mini-cases' of medium size businesses in the Philippines, each of which is seeking to digitize its payment streams, but with little or no success. The third section calculates the costs a stylized Filipino business faces in the current system and the potential savings of digitizing part or all of its invoice payment process. In the fourth section, the case study uses cost findings from high-income countries to estimate the cost of the reliance on checks to banks in the Philippines. Then the case study looks at the results of the small business survey and the factors limiting the usage of digital payments. The final section draws implications for governments interested in strategically supporting businesses to digitize their payments, and for businesses that operate in this kind of payments ecosystem.

As a guide to reading the case, Table 1 below maps how this case study extends the information base regarding each of the potential benefits of digital inter-bank payments from the perspective of businesses.

TABLE 1 Benefits of electronic payments discussed in this case study

Cost Savings	Transparency	Speed & Security
The businesses interviewed report costs they believe they could save with access to electronic inter-bank payment systems from their main bank, and reducing the number of checks written and accounts maintained. The invoice calculator suggests that the saving could be 25-46% of invoice processing per annum. Most businesses are also seeking greater control and efficiency to release management time to be focused on core business. The current electronic inter-bank options are hugely inconvenient and costly for payees and payers alike.	The Department of Budget and Management (DBM), which oversees government payments, has made significant strides in enabling the adoption of electronic payments, with gains for transparency. However, transparency is not a major factor for the businesses interviewed in this case study, though each said they supported government's goal of increased transparency.	Medium size formal businesses report that they seek to reduce their security risks when making and collecting payments, and for the most part they trust checks which may take several days to clear. However, they seek greater speed and convenience to make payments to suppliers. They have been less able to incentivize their payees to accept real time (IBFT) payments because the service is unknown, unavailable or expensive for payer and payee.
Financial Inclusion	**Economic Development**	**Changing Lives**
This case study suggests that financial inclusion and inter-bank electronic payments are linked. The survey results of small businesses suggest that if policymakers want to reduce the cost of cash on the financial system, they can encourage financial inclusion by ensuring greater ability to make convenient and affordable third party account-to-account payments from any device by small businesses and their clients.	Businesses are not adopting a wide range of innovative approaches to payments, but remain tied to checks in spite of erosion of legal protections. Banks continue to "wall off" their corporate and medium size businesses from efficient cross payment systems to capture business and protect their intra-bank remittance services. Businesses are required to maintain high float balances and therefore lack access to locked-up capital to invest in core business.	To date, digital payments have not had a substantial impact on the lives of the owners of the small and medium sized businesses interviewed for this case study. An unclear value proposition across a fragmented IBFT value chain for business and consumers hinders developing, delivering, and promoting useful "many-to-many" e-payments by the underserved and women using whatever device at their disposal, such as mobile, to make deposits and payments.

3 Filipino businesses have few digital payment options

The predominant way for Filipino businesses to make payments electronically, whether to employees or suppliers, is for both the business and the recipient to have bank accounts with the same bank. Figure 2 at right shows this approach, called Model A.

Banks have developed payment services and digital channels — including ATMs, online banking and mobile banking — to help their corporate and retail clients make intra-bank electronic payments, though data on the volume and value of these transactions is not tracked by regulators. Payments on these channels are usually cleared in real time when the payee is at the same bank. A large number of banks today offer these electronic products as shown in Table 2 below.

FIGURE 2 **Intra-bank electronic payment (Model A)**

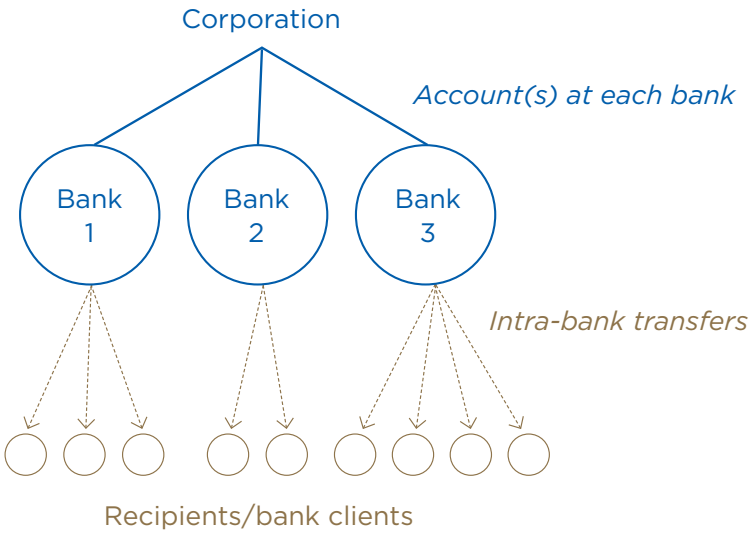


TABLE 2 Intra-bank electronic payment products

Electronic Banking Product	No. of banks
Internet banking	44
Mobile banking	32
Phone banking	16
Mobile/internet intra-bank through ATM consortia	6

Source: BSP and the World Bank as at 30 June 2013

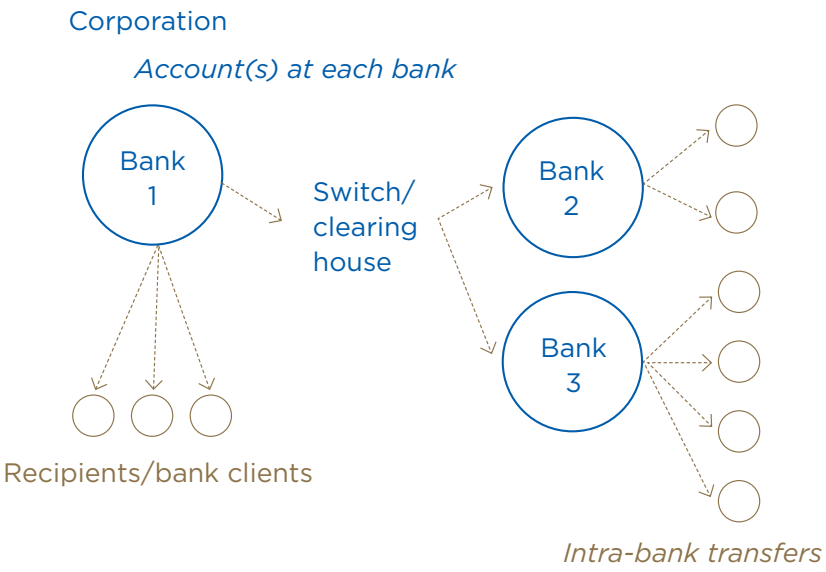
Intra-bank payments may also be made by branch transfers, which are generated by the business issuing written instructions to the branch to make payment, and of course by checks.

Banks do not charge fees for intra-bank transfers to their clients. Banks do have internal costs for making transfers between branches or between regions within the bank, but rather than pass those costs on directly to clients, banks typically require higher minimum balances to be held in accounts.

Banks also typically do not charge corporates per check issued, provided balance levels are maintained. Checks are de facto interoperable instruments in that a check issued on any bank can be deposited at another, with the value cleared through the Electronic Check Clearing System operated by the central Philippine Clearing House Corporation (PCHC), usually within two days depending on location. This interoperability of this paper instrument is one of the reasons most supplier payments are still done this way.

However, businesses are limited in the degree to which they can make digital payments across banks — that is, from their account at one bank to a recipient's account at another bank. Figure 3 shows what an inter-bank payment looks like, called Model B.

FIGURE 3 Inter-bank electronic payment (Model B)

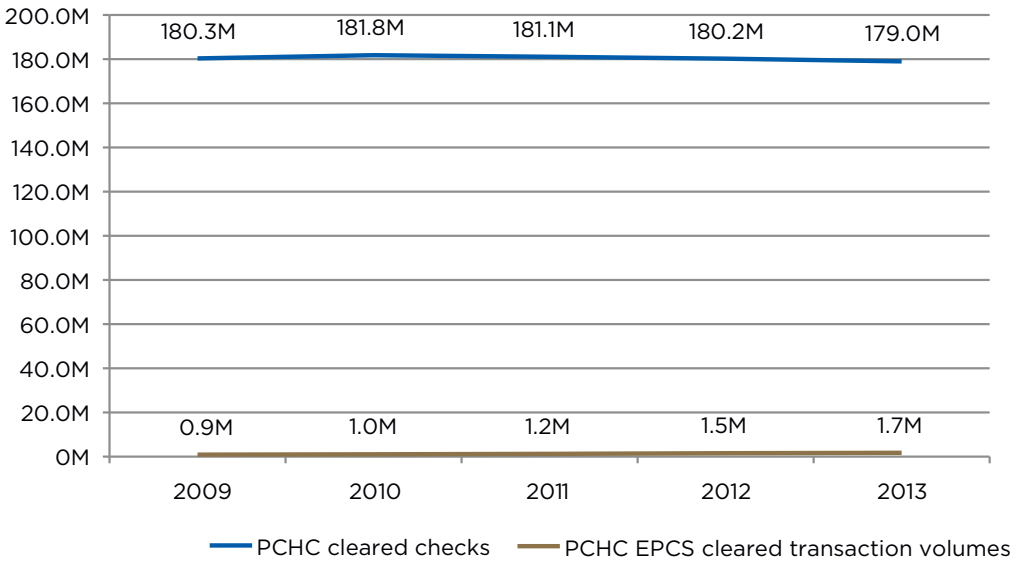


Businesses currently have three options for making these kinds of payments:

A. The Electronic Peso Clearing and Settlement System (EPCS) is an interbank account-to-account fund transfer system operated by the PCHC which is primarily owned and governed by the main commercial banks. The EPCS supports bulk, recurring, non-time - sensitive payment transactions. The EPCS is considered a cost-efficient means of transacting payments but the Bankers Association of the Philippines has not facilitated rules on debits through the EPCS. Nevertheless, it is an important alternative to check payments.[3] As of 2013, 38 commercial banks participate in the daily operations of EPCS, but the system only manages 143,000 transactions per month, or about 1.7 million transactions per year. This number is only 1% of the volume of checks cleared as Figure 4 below shows (Note that this does not include checks from one account to another in the same bank.) Figure 4 also shows that while digital transfers through EPCS are growing, the number of checks issued remains stable contrary to the experience of other countries like Nigeria and Colombia.

The transaction fee per transfer was raised from PHP 10 to PHP 25 per batched transaction.[4] **The receiving banks are also allowed to charge an inward fee to the payee at whatever rate the market will bear,** which according

FIGURE 4 **Checks and electronic credit annual transaction volumes**



Source: PCHC 2013 annual report.

to the PCHC could be as high as PHP 400 per transaction, a clear disincentive for a supplier to want to be paid through this method.

B. PhilPaSS, **is the real time gross settlement (RTGS) system** operated and governed by the BSP to manage systemic risks associated with large value cross payments. At the end of 2013, 38 commercial banks, 3 specialized government banks, 43 thrift banks, 53 rural banks and 14 Non-Bank/ Quasi-Banks were registered with and using the RTGS. PhilPaSS mainly settles inter-bank payments stemming from the sale and purchase of government securities and the settlement of the peso leg of foreign (exchange) transactions, and it also handles some Treasury payments. All transactions initiated in PhilPaSS are processed and settled on a real time basis. PhilPaSS, however, has begun to handle the clearing and settlement of a share of remittance proceeds from overseas Filipino workers, and it settles the final balances between participants in various retail payment systems. Recently, PhilPaSS has also begun clearing and settling customer funds transfers, in particular for corporates through Non Bank Quasi-Bank licensed entities, such as leasing, car financing and bank-owned remittance companies, and for smaller banks requiring the clearing and settlement of customer payments.

PhilpaSS charges low fees on a tiered basis, but there is a **lack of transparency on the incoming and outgoing fees banks may charge**. These fees are on top of the PhilpaSS fee and apply to even small retail payments (less than $ 1 million). While the transaction is real time, banks may not credit the payee's account real time. PhilpaSS works well. The current situation probably reflects the pent-up demand for smaller retail cross payments by those banks that do not directly influence the rules of governing bodies of the PCHC and the national switches. This situation may be incentivizing the use of PhilpaSS by some banks for lower value retail payments for which the RTGS was not originally developed, and is being monitored closely by the BSP.

C. BancNet, one of three national ATM switches, offers a real-time fund transfer facility to its member banks called the **Inter-Bank Fund Transfer** (IBFT): from an ATM belonging to any bank in the network, an accountholder at one of the banks can make a transfer to a card-linked account at any other bank in the network. The facility is also available via BancNet's own website or mobile channel or as a facility within certain banks' internet banking offerings. Unlike "off us" cash withdrawals on ATMs, this IBFT facility is not interoperable with members of Megalink or the other switches. (Megalink has a similar inter-bank service available among its member banks.)

The transfer amount is limited to the maximum of what the cardholder is allowed to withdraw at ATMs. Of the 60 or so banks that are offering the IBFT facility to their card and accountholders, only 5 banks have daily limits of up to PHP 100,000 ($2,220); the average limit is much lower at PHP 40,000 ($885). BancNet places no limits on the number of IBFT transactions that a payer can make each month. This facility may be of use to a smaller cash-based business owner who may want to make cross payments to suppliers, but the banks do not actively promote this facility to these kinds of businesses.

Pricing is also a major factor. The BancNet fee to the issuer for each IBFT is P25 per transaction, which is usually passed on to the cardholder. **Some banks, however, charge an incoming fee to the payee** (similar to payees of the EPCS). If the same cardholder makes a second or subsequent IBFT that month, some banks also charge an outgoing fee on top of the BancNet charge for a total of up to PHP 100 to the payer.[5] Despite more than 25 years of development, Inter-Bank Funds Transfers today represent less than 1% of all ATM, internet and mobile-initiated transactions at BancNet.[6]

Businesses therefore have limited options. Faced with services not designed for use by business, with high or unclear fees, or with limits to the transaction size, most large and medium-sized businesses get the message: If you want to pay digitally, use whatever leverage you can to get your employees or suppliers to open accounts at your main bank. And if that doesn't work, use checks.

Table 3 below summarizes the options businesses have and the costs of each option:

TABLE 3 Payment instruments available and typical costs for businesses

Instrument		Offered by	Time for payee to receive credit	Limits on number or transaction size	Fees to payer	Fees to payee
Checks	Intra-bank	Most commercial banks	Real time in NCR; T +1 outside Manila	No	Cost of check, i.e. check book charges, if any	No
	Inter-bank	PCHC	T+2	No	No: generally waived with minimum balance or no. of transactions; check book cost, if any	No
Intra-bank transfers		Most commercial banks Favored by banks with large branch networks and client bases	Instant No involvement of PhilpaSS	No	No: inter-branch fee generally waived with minimum balance or number of transactions	No direct cost, but possible account opening costs if bank chosen by payer
Inter-bank transfers	EPCS	Most commercial banks	T+1	No	25 PHP up to 0.25% per transaction	400 PHP up to 0.25% per transaction
	PhilPaSS	Commercial banks, thrifts, rural banks and quasi banks	Real time to the beneficiary bank but not the payee	No	100-500 PHP	Yes, with the exception of OFW remittances (as mandated by BSP) and top customers.
	IBFT	BancNet member banks Megalink member banks	Real time	Set by bank, usually at ATM withdrawal limits (up to $2220 per day)	Set by bank: up to 100 PHP	Yes
Corporate payment cards (Visa, MC, AMEX)		Citi, BPI, BDO	T+1	Depends on credit rating of corporate client	No	Merchant discount rate of 2-5%

4 Faced with these options, medium to large-sized businesses devise complex payment arrangements

This section describes how three medium to large-sized businesses make payments. These three companies were recommended by two different sources: the Asia United Bank, which has been trying to break down barriers to efficient inter-bank digital payments for small and medium size enterprises; and from contacts established during the country diagnostic in 2013.

They are drawn from three distinct sectors of the retail industry: direct selling of cosmetics (Avon), drugs and health-related products (The Generics Pharmacy, an SME franchisee) and casual dining franchise restaurant chains (Global Restaurants Concepts, Inc). Each of these companies has the desire to digitize their payments, and has tried to take the initiative to digitize some of its payments but has run into significant challenges.

4.1 Avon Cosmetics, Inc. utilizes intra-bank digital payment facilities for payroll

Avon Cosmetics, Inc makes direct sales of cosmetics to the mass market. It operates from a head office in Manila, with 20 Avon-owned branches and 148 independent franchises. It has an annual turnover of $375 million. Avon maintains 28 corporate accounts to pay and receive cash revenues from 800,000 direct sales representatives; 250 employees are paid monthly from Avon's main bank account to individual ATM card accounts.

The head office does not require sales representatives to open accounts in the same bank as Avon headquarters, as the geographical spread of the business would render it impossible in any event.

Tina Samoy, Finance Operations Manager, says the biggest obstacle in using the intra-bank digital payment facilities of the banks is that the electronic receipts do not include sufficient information for easy reconciliation. This situation creates considerable delay and problems, and absorbs substantial accounting time. The lack of transparent and timely messaging drives the company towards using checks. Ms. Samoy says this situation is much different than her experience in other East Asian countries, such as Singapore, Malaysia and Korea.

The business uses checks to pay for rent, telephone and utilities, as well as to pay other vendors. The business pays all of its suppliers and vendors with checks, which Ms. Samoy said is unnecessarily costly. Avon currently writes checks manually. Suppliers must come and pick up their checks, a process that requires three clerks alone. Staff must spend time preparing and processing invoices and chasing people for approvals, as well as pay for check preparation, paper usage, and "not to mention the benefit of less printing on the environment."

By the end of the year Avon expects to outsource its check payments. Because Avon writes so many checks — 1000 per month to suppliers — it will not have to pay a fee per check for processing; rather, it must maintain a minimum daily balance at its main bank. While Avon will not experience a direct cost per check, it may experience opportunity costs from maintaining a higher balance than it might otherwise do; however, the marginal cost for the check processing service is difficult to quantify.

Avon also makes use of a corporate credit card and cash advances for travel and a fleet payment card for fuel. However, all subcontractors, especially professional service providers, are paid by check.

Avon does not use any inter-bank digital payment facilities as they do in other countries, because in the Philippines they are too expensive and inconvenient for both payers and payees, according to Ms. Declar. With access to affordable and reliable inter-bank transfers, Ms. Declar said, "There will be huge savings in admin work as well as time spent on the road in making withdrawals and deposits physically in the branches, while on-line is more comfortable, quicker and safe."

4.2 SME franchisee in pharma painstakingly manages its multiple account balances

Outlets of the Generics Pharmacy are spread across Luzon and Mindanao. A Manila-based franchisee, with 21 outlets, has an annual turnover of $2.5 million and employs 100 people, of whom 90 are paid on-line through electronic intra-bank facilities. One out of eight suppliers or service providers is paid from time-to-time through an electronic intra-bank facility, with the rest in check. The franchisee (who wished to remain anonymous) uses a corporate credit card to cover travel expenses and some small purchases; he uses a fleet payment card to pay for fuel. All regular monthly bills, including taxes, rent, utilities and telephone are paid by check.

The franchisee has opened seven banks accounts in five different banks so there is a branch close to each outlet. The manager of each of the outlets makes daily deposits to the bank from the previous day's sales for tracking and to avoid having too much cash on hand.

To avoid paying the high fees that would result from transferring the balances in each of these bank accounts into one account at one bank, the franchisee makes payments out of all of the accounts simultaneously. This requires knowing how much is in each account before he writes checks. And since he does not have online banking, the franchisee updates each account's passbook in person at the nearest branch of each of the franchisee's banks —a process that takes three hours for all banks combined and that the franchisee does about once per week.

Accounts generally had a low minimum balance at the outset, but all the banks increased the minimum over time as a fee for one service or another, such as waiving the interregional branch transaction fees or providing a cash pick-up service.

The franchisee said he would ideally like to keep just $700 as a float in each bank account so he could make more productive use of the money and use it to make purchases. However, in exchange for cash handling services, his banks typically require that the business maintain average daily balances ranging from $22,000 to $67,000.

Though he is aware that at least three of his banks offer an interbank electronic payment service, the franchisee has not tried it due to perceived high fees; he has also heard that the rejection rates can be high, and data for reconciliation is hard to fathom without better massaging. He has also not asked his banks for help with check processing, nor has he been offered check outsourcing services.

In his experience, some banks do provide better service than others and require lower average daily balances. However, those banks tend to lack the branch and ATM networks that would

make it feasible to use them for more of his business.

4.3 Global Restaurant Concepts, Inc struggles to convince suppliers to take interbank electronic payments

Global Restaurant Concepts Inc. (GRCI) has exclusive rights to develop restaurant chains for such brands as California Pizza, PF Chang's, Morelli's Gelato and at least four other global or Filipino brands.

According to President and CEO Archie Rodriguez and CFO Griffith Go, GRCI has 800 employees and almost all are paid via an intra-bank fund transfer from its main corporate account to individual ATM accounts. Mr. Go estimates that 80% of employees cash out completely upon receipt of their bi-monthly salary payments. GRCI used to make salary payments by check that took two days to process. Instead, intra-bank transfers take 20 minutes to process.

GRCI makes at least 100 regular monthly payments for bills, all by check. GRCI is leasing space for 21 restaurants, and most of utility bills are covered by rental agreements.

Each quarter GRCI pays its withholding taxes electronically; all other taxes are paid by check and delivered manually to local or national government offices.

GRCI makes at least 1,000 payments each month to about 200 restaurant suppliers, 100% by checks, which "gives us a bit of a recording function," Mr. Go said. Another 10 checks are written each month for other professional service providers, such as legal, accounting and security vendors. GRCI's suppliers and vendors do not want to receive electronic inter-bank payments due to the risk of being charged unexpected high fees for receiving transfers. GRCI has attempted to convince suppliers to open accounts in its main bank in order to accept intra-bank payments on which there would be no fee, but GRCI still maintains accounts at 5 other banks for both supplier payments and for cash management purposes.

Today, when a restaurant needs to place an order, it sends a purchase requisition by email to the Head Office/Restaurant Support Center, which then prepares and faxes a purchase order to the supplier. The supplier then delivers the goods to the restaurant. The restaurant then needs to prepare a receiving report, an invoice, and the original purchase requisition and send them back to the Head Office. Afterwards, the Accounting Department processes the check for the supplier to be signed by either the CEO or the CFO.

Mr Rodriguez said, "It not only takes time…it wastes time. We would prefer not to be chased around to sign checks." Mr. Go added, "If we were able to do IBFTs, it would definitely reduce costs. We now have 30 people in accounting; it could probably be cut down to 12."

Instead, GRCI seeks to maximize the efficiency of using checks. GRCI is in the middle of launching an enterprise resource planning (ERP) solution.

"With the ERP, the Head Office and respective stores need to just pull up the appropriate window to see the transaction progress," Mr. Go said.

"For instance, once the supplier completes the delivery, the store can just pull up the window to check the purchase requisition order and convert it to a receiving report. Said action can be readily seen by the accounting department so it can start processing the check payment for the supplier."


10:23AM
Message body
1/189
Cash In
Transferred to:
09187411235
Amount: P 256.00
Tran. Charge: P 3.00
Matapat Bal.: P
15,939.34
As of Nov. 21, 2013
Options
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5 The available options all carry costs for businesses, but automating checks offers an attractive half-way stage

So what would a typical medium to large Filipino business like those in this case study save by shifting its invoice payments from paper to digital? It turns out that none of the businesses interviewed has yet made the calculation themselves, in part because this can be complex to do. They may not even find such an analysis persuasive, as they see other barriers to shifting: The difficulty of persuading suppliers to receive payments digitally when checks are so entrenched and offer tangible proof of payment, and when there are opaque fees for receiving EFTs and the value is not posted to their account in real time; as well as payers' own incentive to pay by check from the float income they earn before the check clears.

However, with data gathered for this case, it is possible to make a first estimate of the costs and possible savings involved, excluding the one-off costs of time spent persuading suppliers to accept electronic. We used the BTCA Invoice Calculator from the BTCA Business Toolkit to create a stylized profile for a representative business. Some of the data are too sensitive for any particular business to disclose, hence the use of a stylized profile to provide anonymity.

The detailed assumptions used in the calculator can be found in Annex C. The core assumptions are summarized in Table 4 below.

TABLE 4 Core Assumptions

A. Company supplier profile		
Number of suppliers	Number	250
Total number of invoices received per month	Number	1000
Total average value of payments to suppliers per month	USD	4,400,000
Of the above invoices:		
% paid by check	%	100%
B. Costs		
Bank charge per check processed	USD	0
Bank charge per EFT processed	USD	0.5
Bank monthly charge for EFT service if any	USD	0
Monthly employment cost per AP clerk	USD	550
Monthly employment cost per accounting manager	USD	5500
Float interest rate on funds	%	1%

One observation from the above table is that checks are essentially free for most businesses (subject to maintaining balances with the bank as discussed earlier), whereas digital payments via EPCS cost around $0.50 each, so businesses perceive an immediate extra cost to shifting. In addition, the calculator takes into account the value of the float on checks to this business, using 1% as an indicative rate based on current rates for special deposit accounts. This float value is of course lost to the payer (but gained by the payee) with digital payments since the value is debited immediately on issuing the credit transfer instruction.[7]

The outcomes clearly depend both on how far the business shifts to digital, and on how it shifts. Table 5 below shows the total annual costs of processing invoices, starting with the status quo (100% paper) and then transitioning in steps, first to 50% digital on the basis that not all suppliers would be ready or able to shift, and then ultimately to 100% digital. There are in fact additional costs associated with transitioning to digital, such as setting up and testing suppliers' bank profiles and scanning invoices to digitize the process, quite apart from the added cost of the electronic transfers over checks in the current environment. However, the main savings come from reducing the time spent by management and staff in preparing, signing and then distributing checks. While administrative staff salaries are relatively low today in the Philippines, these savings would become more significant as these costs rise over time. The result is that total costs of invoice processing and payment could fall by 25% (for shifting half) or 46% (shifting all).

TABLE 5 **The cost savings to a business from shifting invoice payments to digital**

Scenario	TODAY: 100% paper	FUTURE 1: 50% digital	FUTURE 2: 100% digital	HALF STEP E-check
TOTAL COSTS PER YEAR	**$52,035**	**$38,378**	**$27,513**	**$30,496**
% CHANGE RELATIVE TO TODAY		**-25%**	**-46%**	**-41%**
Made up of:				
Supplier setup costs	-	192	383	-
Invoice processing costs	3,807	5,376	6,945	3,807
Payment costs	42,975	29,884	18,693	21,436
Post payment costs	4,936	2,767	1,332	4,936
Supplier maintenance costs	317	159	159	159

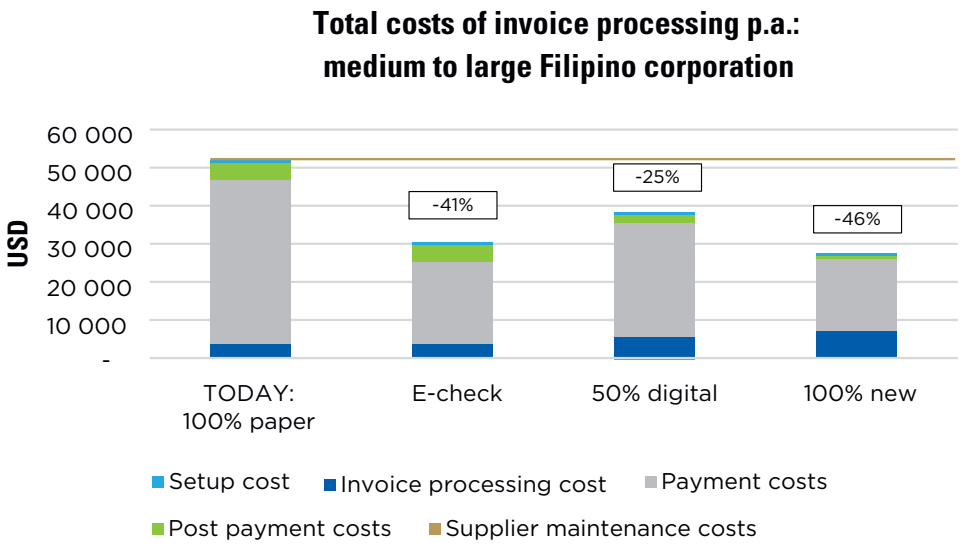
Source: Invoice calculator, calibrated as per Table 4

Note that these calculations are likely to be conservative since they do not include any benefit from reduced risk of fraud: bankers report that the incidence of fraud is lower today on electronic transfers than on checks in the Philippines but the numbers were not available to calibrate this benefit at the level of a single business.

Much of the savings comes from taking the time out of paper check preparation and signature.
As noted earlier, one of the businesses interviewed (Avon) was recently offered the chance to outsource check issuance to their bank via an e-check function, whereby they would enter and authorize payee amounts via a web portal and the bank would issue, sign and send the checks.[8] Provided the business maintained sufficient balance, the bank would not even charge for the added function since it provided incentive for the business to keep its deposit float with the bank. This outsourcing would have substantially similar time effect as moving all suppliers to digital payments, resulting in cost savings of 41% relative to the current situation, but without having to undergo the time consuming process of persuading any suppliers to change their means of receipt.

What this means is that, while there is strong incentive for a business to take advantage of this function as a half step to digitizing its payments, the underlying payment instrument remains the paper check. As long as checks remain 'free' to use while digital payments are charged (for the recipient as well), the case for businesses to make the effort to shift supplier payments will always be harder to make.

FIGURE 5 **Total annual costs of invoice processing: medium to large Filipino corporation**



6 Banks mainly bear the cost of checks and should have reason to change

So far we have seen that Filipino businesses do have some incentive to digitize part of their invoice processes, but not necessarily to shift away from checks as the main underlying payment instrument. However, in common with other payment instruments like cash, the costs and benefits of using the instrument are often distributed unevenly. In particular, Filipino banks largely bear the costs of issuing and processing the check, without receiving fee income for the service. To be sure, they do hold the corporate check float in deposit, potentially at a higher level than otherwise may be required, but even in a digital world, they would continue to hold the same float in aggregate at the banking sector level, even if it moved more rapidly between banks as payments were settled faster.

Just how high is the cost of checks to the Filipino banking sector? It turns out that there is no sector wide review of the costs to banks of check processing that is recent and publicly available. Undertaking this complex exercise would be worthwhile both for the banking sector and the BSP, in line with similar exercises undertaken by central banks in a range of high-income countries in Europe and in Australia. In the absence of such an exercise in the Philippines, it is nonetheless possible at least to estimate the likely order of magnitude of these costs using the data from the other countries.

Specifically, the cost estimates prepared by the European Central Bank (ECB) (2012), based on questionnaires from country central banks, and the Reserve Bank of Australia (RBA) (2007), based on underlying information collected from banks there, suggest that, for the average financial institution, checks cost from US$2.56 (in EU)[9] to US$3.71 (in Australia)[10] per check. In order to allow for the difference in labor costs and cost structures between these countries and the Philippines in the absence of a detailed cost study, we can apply the World Bank GDP PPP adjustment of 42% in 2013, implying that goods and services there are cheaper in US$ terms. This suggests that actual costs in effective local currency terms are more in the effective range of US$1.48 to $2.14. Taking a simple average between these two figures yields an estimated average cost to banks of $1.81 per check in the Philippines.

Clearly, many checks are processed intra-bank, especially within larger banks. However, there are no aggregate figures for these payments, though clearly intra-bank checks would cost less to process than inter-bank checks. Using only the 2013 number of 179 million inter-bank checks cleared through PCHC, the banking sector as a whole may therefore have incurred costs related to check clearing and processing of some $324 million in that year. To put this in perspective, this number represents some 10.2% of the total net profit after tax of the entire Filipino banking sector in 2013; or 6.3% of the total non-financial operating costs of the sector.[11]

Of course, shifting away from checks does not mean that all costs disappear— and certainly not at once. The inter-bank transactions carried out by check such as those to corporate suppliers would have to shift to a digital instrument such as a credit transfer, for which banks also incur costs issuing and processing. No reliable cost numbers are available across the Philippines today for these payments either, and even if they were, the low volumes of current usage today (equivalent to only 1% of the number of checks cleared) may distort the costs per transaction upwards, relative to what they would be if the entire large number of checks were to shift onto this platform.

Hence, again, it may be more reliable to infer a cost per credit transfer from the estimates of the ECB and the RBA. The ECB weighted average estimate for banks across reporting member banks (splitting total social cost by the overall ratio) is $1.32. This average number reflects the wide range of sizes of European banks and diversity of usage levels in different country payment systems; hence the median is much lower, at $0.91, or in PPP terms $0.52. And this figure is much higher than the Australian weighted average financial institution cost for each direct credit of $0.07, or in Filipino PPP terms, $0.04. However, the RBA makes the point that if

a proportion of costs for internet banking were properly absorbed into the direct entry products, since internet banking is the front-end for entry, the costs per transaction would double to $0.08. So the PPP-adjusted financial institution resource cost for direct credits may lie between $0.08 (in a large, active system) and $0.50 (which is biased towards smaller systems in which the instrument is less used). To be conservative for the Philippines, let us again take the average of these numbers as a proxy of where the cost might be in future: $0.29.

Using these cost assumptions, Filipino banks would save on average $1.52 per transaction shifted from check to direct credit ($1.81 for check less $0.29 for direct credit). Again, using the present numbers of checks cleared, the annual net saving for the banking system would be $272 million, over 8% of the sector's entire 2013 net profit. This is money left " on the table" for the banking sector as a whole.

These savings at the level of the sector are not necessarily applicable at the level of each individual bank. While it seems clear that all banks would save costs by switching inter-bank checks to credit transfers, the net benefit to any one bank would vary depending on which banks today benefited most from holding proportionately more float. Also, while banks may also be able to charge for the digital transfers, unlike for checks today, thereby earning additional revenue, the level of revenue which would be earned is uncertain. To get to the high volumes of digital usage from a complete switch over, banks would likely have to reduce substantially their current levels of fees on credit transfers for the payer and certainly for the payee.

Clearly, this analysis can only be indicative of the orders of magnitude involved, in the absence of clear, credible local cost calculations. But analysis does suggest that the banking sector as a whole has much to gain from revising its fee structures on digital products and together actively seeking to encourage corporate customers to shift to digital solutions, rather than competing for shares of float in a smaller pie of profit after the cost of checks are considered.


CARD BANK, INC.
Microfinance-Oriented Rural Bank
I.D.
20512
NAME
SIGNATURE
ADDRESS

7 The world of digital payments has yet to significantly touch smaller businesses

The preceding sections showed that large and medium-size businesses are using bank transfers for payments like salaries, albeit largely on an intra-bank basis, but they generally use checks for most supplier payments, even though they may save costs overall from shifting to digital payments.

Even these basic payment options are unavailable in practice today to most small businesses in the Philippines, though. Working with Social Weather Stations (SWS), a leading private Filipino research institute, BTCA surveyed owners, managers, accountants and cashiers at 400 small businesses in the Manila area.[12] The hypothesis in selecting this sample was that these urban-based businesses would not face a geographic challenge in accessing formal financial services so they would be the most likely of the country's small businesses to have digitized some of their payments.

7.1 Even where access is not a challenge, most small businesses are unbanked

IBFTs, as with other digital payment instruments, are available in theory to all businesses and individuals with card-linked accounts at formal financial institutions. Yet very few Filipino small businesses — even in urban Manila — in fact have bank accounts. In the survey, 70% of businesses operated without any bank account; 17% used a personal bank account belonging to the business owner; and just 11% did business from a corporate bank account (3% used both kinds of accounts). The percentage of small businesses banked is far lower than was revealed in a similar BTCA survey of businesses with equivalent employee numbers in Lagos, Nigeria, where only 17% of small businesses had no account.

Regression analysis (see Annex D for more detail) of the Philippines survey data shows that small businesses with bank accounts are most likely to be older businesses and are likely to have a greater number of suppliers than are businesses without bank accounts. However, the number of transactions a business does per day, as well as the average value of those transactions, is not a good predictor of having a bank account. In other words, the small businesses with bank accounts are typically more established and more complex businesses. This is not surprising in itself.

The fact that most small businesses do not have bank accounts means that they cannot access the digital payment instruments provided by BancNet and others, even if these were well suited to their needs. As noted earlier (see Table 3), IBFTs are limited in daily value to the amount that cardholders can withdraw at ATMs, making this service impractical for most payments by large and even medium-sized businesses. Small businesses, on the other hand, would not be constrained by these limits: among the businesses surveyed, the median value of a payment to a supplier was about $467, well within the IBFT limits. So even though small businesses would still face the high fees of IBFTs (possibly both as payer and as payee), the service could cater for the sizes of transactions most small businesses need to make. But most do not have bank accounts.

7.2 Even banked businesses are not using electronic payments

Unlike with large and medium businesses, small businesses' main challenge to using electronic payments is not mainly fees or other costs. Rather, it is that they operate in an environment dominated by cash. Moreover, banks are not playing an active role in on-boarding and promoting digital payments to a wider SME customer base.

The median number of sales that businesses in the survey did in a day was 30, with a median value of just $1. Almost all (99.99%) of these purchases are done in cash. (The findings of the survey confirmed the estimates made in the 2013 BTCA Country Diagnostic for the Philippines of the usage of electronic payments by small businesses.) When asked what hindered their businesses from receiving electronic payments, over 82% said their customers think cash is easier or their customers feel better paying in cash.

The same is true for outgoing payments. In the survey, just 1% of small business payments were made electronically. And over 92% of businesses said cash is easier to use or that they feel better using cash. This finding does not differ materially between businesses with accounts and those without accounts.

Among those with accounts, just 7% of businesses have made an effort to make more payments digitally, and

7% have made an effort to receive more payments digitally (compared to less than 1% of businesses without accounts in both cases). There is just not a strong appetite for digitizing payments.

7.3 Small businesses are not shopping around for lower fees or better products

The survey asked each business with a bank account why it chose its specific bank. Two possible hypotheses were (i) big players in the small business's value chain would have forced it to choose a certain bank so as to facilitate intra-bank payments, and (ii) small business owners would be willing to travel a little extra in order to get services that were more tailored to their needs and revenue flows.

Overwhelmingly, however, the responses had to do with convenience: 59% of respondents said they chose their bank because it was the closest bank to their business location, and other 18% said it was because they had a personal account at the same bank. Only a handful of respondents said they chose their bank because it had the lowest fees, that it is a good bank for their type of business, or that it is the same bank used by their main customer.

Businesses without bank accounts did not worry about fees, either: just 2% said fees are too high. Instead, these businesses tended to say they did not feel they had enough money to warrant having a bank account (50%), that they generally did not need one (19%), or that they needed cash on hand to buy supplies (17%).

These finding suggest two things:

- Banks are not competing for these businesses, either on products (electronic payments or others) or on price; and
- Small businesses perceive that having a bank account is not necessarily good for managing complexity once they are established — and the need to make electronic payments is not bringing these businesses through the branch door.


Amount: 256.00
Matapat Bal:
Php415.22
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8 Lessons for regulators and businesses

The barriers that businesses in the Philippines face to making efficient digital payments are high but not unique: banks and other providers in many markets also have incentives that may differ from their clients. And as other BTCA case studies have also emphasized, some actors in the payments ecosystem are likely to lose out from a shift to greater usage of digital payments. The two lessons below should help regulators and businesses in a context similar to that of the Philippines.

8.1 Aligning banks' interests with those of businesses and consumers may require incentives or even penalties

The BSP has clearly made a commitment to shifting more payments in the country to digital, most prominently through its leadership in collaboration with the SIMM project, supported by USAID. The policy, governance and businesses case for effective and efficient interoperability among banks is beyond the scope of this case study. But this case does demonstrate, as is the case in other contexts, that moral suasion from policymakers alone may not be sufficient to persuade banks to be drivers of the shift.

Common tactics of keeping bank fees opaque (by requiring minimum balances rather than charging fees) on checks, and of charging fees for receiving transfers have had the effect of discouraging digital payments and protecting traditional sources of margin income. Disrupting this low level equilibrium may require some experimentation with different policy measures, including promoting more open and clear pricing structures so that businesses know what the value proposition may be for speed, trust and cost reductions.

Though it operates in a different payments context, the Central Bank of Nigeria began experimenting in 2012 with penalties on bank clients for cash usage at the bank — penalties

that are assessed on the banks for the activities of their corporate clients, as explored in a BTCA case study.[13] Though it is still early in the policy's implementation, the BTCA case study found that the incentives for Nigerian banks and large businesses had changed as a result, although it had not yet touched smaller businesses. This penalty-based policy approach may well not be best for the Philippines or other countries, but it is helpful to build an evidence base of other countries' policy innovations to promote a shift when incentives are not aligned. Sometimes the threat of introducing a penalty is sufficient to have the effect of stimulating change.

The BSP clearly can continue to play a role in shaping a positive vision of the future for banks in which they save on the high costs of checks and can see the advantages of business models in which digital payments feature prominently. However, since the gains and losses from new business models may not be equally distributed, the regulator would still have to be ready to resolve any sticking points.

8.2 Businesses should study the costs they face in making payments, and then shop around for better bank services

In the absence of changes in the rules of the payments system, including the commercial agreements between banks and banking groups, businesses in the Philippines will have to put much more effort into seeking out efficiency gains in their payment processes. This starts with understanding the true costs they currently pay to make (and even receive) payments. These are the costs that, in the Filipino context, are kept opaque by bundling various corporate banking services in exchange for a high minimum account balance. This situation may also be reinforced by the way the performance of CFOs is evaluated.

A next step is for businesses to take that knowledge of costs into negotiations with their current banks and potential banks. In the Philippines, these negotiations are particularly difficult for medium-sized businesses: like large businesses, they need to pay employees and suppliers with accounts at many different banks or in cash; but unlike large businesses, they cannot coerce their salaried and upper tier employees or suppliers into opening accounts at a certain bank.

Without this knowledge, though, even large businesses in a context like this may feel stuck in a low level equilibrium with limited chance of shifting. However, as in the Philippines, there may be "money on the table for the banking sector as a whole and for businesses that could be claimed by a concerted move towards digital payments. Identifying and then agreeing to share those savings offers the best chance of motivating the shift towards a digital future.

ANNEX A: LIST OF ACRONYMS

ACH	Automated Clearing House
ATM	Automated Teller Machine
AUB	Asia United Bank
BAP	Bankers Association of Philippines
BDO	Banco De Oro
BFA	Bankable Frontier Associates
BIR	Bureau of Internal Revenue
BPI	Bank of the Philippines Islands
BSP	Bangko Sentral ng Pilipinas
BTCA	Better Than Cash Alliance
DBM	Department of Budget and Management
DDA	Demand Deposit Account
DRFRP	Development Results Focused Research Program
ECCS	Electronic Check Clearing System
EPCS	Electronic Peso Clearing System
ERP	Enterprise Resource Planning
GDP	Gross Domestic Product
GRCI	Global Restaurant Concepts, Inc.
IBFT	Inter-Bank Fund Transfer
KYC	Know your Customer
NPA	National Payments Act
OFW	Overseas Filipino Workers
OTC	Over the counter
PCHC	Philippines Clearing House Corporation
PHP	Philippine Peso
POS	Point of Sale
P	Person
RTGS	Real Time Gross Settlement
STP	Straight-Through-Processing
WB	World Bank

ANNEX B: SOURCES

BangKo Sentral ng Pilipinas, PhilpaSS Primer, 2012.

BFA, *Demand Study on Domestic Payments in Philippines*, commissioned by the Bill and Melina Gates Foundation, December 2010.

BFA, *Integrating Payment Systems in the Philippines: A High Level Glide Path to Interoperability*, SIMM Project of USAID and DAI, June 2013.

BTCA, Development Results Focused Research Program, *Country Diagnostic: PHILIPPINES*, October 2013.

Payment, Clearing and Settlement Systems in the Philippines, undated. http://www.emeap.org/emeapdb/upload/WGMeeting/Payment,clearing%20and%20settlement%20systems%20in%20Philippines.pdf.

Schmiedel, Heiko, Gergana Kostovo & Wiebe Ruttemberg, "The social and private costs of payment instruments: a European perspective", *Occasional Paper Series 137,* September 2012, available via http://www.ecb.europa.eu/pub/pdf/scpops/ecbocp137.pdf.

Schwartz, Carl, Justin Fabo, Owen Bailey and Louise Carter, "Payment Costs in Australia", RBA 2007, available via http://www.rba.gov.au/payments-system/resources/publications/payments-au/paymts-sys-rev-conf/2007/7-payment-costs.pdf.

World Bank, *National Retail Payment System,* Discussion Paper, November 2013.

Interviews

COMPANY	INDIVIDUAL(S)
Asia United Bank	Abraham Co, President; Wilfredo Rodriguez, IT Head
BancNet	Aisteo Zafra, Jr.,Executive Vice-President and COO
BSP	Nestor Espenilla, Jr., Deputy Governor
Citibank	John Ong
Generic Pharmacy	SME Franchisee/Owner
Global Restaurant Concepts	Archie Rodriguez, CEO and President; Griffith Go, CFO
MegaLink	Bernadette Arguelies-Ramos, Head, Product Development
Philippines Clearing House Corporation	Emmanuel Barcena, President and CEO

ANNEX C: BTCA BUSINESS TOOLKIT INVOICE CALCULATOR

In which currency do you wish to enter your assumptions?			USD			
Enter exchange rate of local currency to USD: 1 LCU= x USD (enter 1 if USD above)			1			
Enter the following details:						
No of suppliers	Number	250				
Total number of invoices received per month	Number	1000				
Total average value of payments to suppliers per month	USD	4,400,000				
Of the above invoices:		Now	Target		Now	Target
Number paid by check	Number	100%	0%	Value	100%	0%
Number paid by bank transfer	Number	0%	100%	Value	0%	100%
Number paid in cash	Number	0%	0%	Value	0%	0%
Current means of payment						
Total value made by cash	USD	-				
Total value made by check	USD	4,400,000				
Total value made by bank transfer	USD	-				
Targeted future						
Total value made by cash	USD	-				
Total value made by check	USD	-				
Total value made by bank transfer	USD	4,400,000				
Do you send remittance advices separately from checks (alternative: outsource this)			Yes			
Do you write checks for pay manually (alternative: print checks or outsource the printing)			Yes			

Assumption choices						
Do you want to supply your own assumptions? (if not, the calculator will use the default)			Yes			
Short format (enter only key own assumptions which will be used instead of defaults)						
Bank charge per check processed	USD		0			
Bank charge per EFT processed	USD		0.5			
Bank monthly charge for EFT service if any	USD		0			
Monthly employment cost per AP clerk	USD		550			
Monthly employment cost per accounting manager	USD		5500			
Cost to mail a check	USD		0.00			
Long format (enter all own assumptions (linked to each cell on workings sheet)						
Go to invoice assumptions						
Outcomes						
Based on the assumptions used, by moving to your target payment approach,	USD			USD		
You stand to reduce your annual invoice related costs from	52,035		to	27,513		
This translates to a potential annual saving of	24,522			or	-46%	of current costs

The full invoice calculator is available in spreadsheet form in the Business Toolkit developed by BTCA, to be made available via the BTCA website in 2015.

ANNEX D: ECONOMETRIC ANALYSIS

Summary results table below. More technical information available from BTCA upon request.

TABLE D1 **Factors related to the probability of having a bank account.**

Transactions per day	0.00	
Average transaction value	0.00	0.00
Number of years business has existed in this location	0.91***	0.98***
Part of a franchise	0.72*	0.74*
Number of bills paid per month	-0.01	
Total value of payments to suppliers per month	0.00	
Number of suppliers	0.42***	0.47***
Gender of respondent (1 is male)	0.48*	0.38
Age of respondent	-0.02	-0.01
Constant	-2.80	-3.11
No. obs.	356	387

**** statistically significant at the 99% confidence interval; ** at 95%; * at 90%.*

Endnotes

1 Introductory remarks at a workshop on interoperability April 22, 2013.

2 G: Government. B: Business (non-financial private sector). P: Person (individuals). D: Development community partner. For further explanation of the payment grid, see Better Than Cash Alliance (2012), *The Journey Toward 'Cash Lite'*, available at http://betterthancash.org/wp-content/uploads/2012/09/BetterThanCashAlliance-JourneyTowardCashLite.pdf.

3 The *PhilPaSS Primer*, BSP, PSO-Ref –03-02-000 " Version2" Updated 20 January 2012.

4 Banks are charged according to the number of transactions incurred each day with billing statements sent to the banks every month. The system can process transfers so that funds are available on the next business day (T + 1), while withdrawals of transferred funds require 48 hours advance notice before the funds may be withdrawn from the payees' accounts.

5 According to interviews, this extra outgoing fee is to deter informal remittance service providers from utilizing the facility.

6 Ibid.

7 There is a tradeoff for businesses between paying more per-transaction fees on digital payments and maintaining a large float commitment at a bank with free checking. Using current cost parameters, even with a modest number of monthly transactions, fees are likely more costly in direct terms than float commitments in interest foregone. Hence the disincentive to change. Indirectly, however, high minimum balance requirements do cost businesses: they make it harder for businesses to manage their cashflow and invest.

8 This auto-check issuance function is a common part of internet banking in countries where checks are still widespread such as the US.

9 ECB (2012) Table 9, average costs (Eu.3.86) split out to banks in the ratio of bank costs to total social costs in Table 8 (0.5/0.94) converted at current EUR/USD rate of 1.3.

10 RBA report (2007) Table 7: 106, converted at AUD/USD of 1.14.

11 BSP *Philippine Banking System Income Statement and Key Ratios* for 2013, available via http://www.bsp.gov.ph/banking/pbs_archives/2013/4.htm, accessed 18 October 2014.

12 The focus of the study was on businesses in metro Manila with between 2 and 25 employees. These businesses offer commercial goods and services onsite, like restaurants, but excluding industry, small factories, and off-site jobs. The interview respondent at the business was required to be knowledgeable about the establishment's payment processes and decision-making.

13 Reference link when posted by BTCA.

About the Better Than Cash Alliance

The Better Than Cash Alliance is an alliance of governments, private sector and development organizations committed to accelerating the shift from cash to electronic payments. The Better Than Cash Alliance is funded by the Bill & Melinda Gates Foundation, Citi, Ford Foundation, MasterCard, Omidyar Network, USAID and Visa Inc. The UN Capital Development Fund serves as the secretariat.

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To learn more, visit www.betterthancash.org and follow @BetterThan_Cash.