Sustained Effort, Saving Billions: Lessons from the Mexican Government’s Shift to Electronic Payments

by Guillermo Babatz
THE BETTER THAN CASH ALLIANCE 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.

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ACKNOWLEDGMENTS
In addition to thanking all those interviewed, listed in Annex E, for their time, we wish in particular to acknowledge the support given by Lic. Irene Espinosa and Ignacio Rayon, National Treasurer and Under-Treasurer of the Mexican Treasury, respectively, who have generously shared their time and advice, and who have played a crucial role in the story told in this case study.

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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.

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- and 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.

About The Development Results Focused Research Programme (DRFRP)
The Better Than Cash Alliance’s 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 Better Than Cash Alliance stakeholders to plan, measure and implement shifts.

The DRFRP is managed, on behalf of the Better Than Cash Alliance, by a consortium led by Bankable Frontier Associates (BFA), 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 partners.
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Note the exchange rate as of September 2013: MXN $13.32 = USD $1.
By digitizing and centralizing its payments, the Mexican government has saved

**US$ 1.27 BILLION PER YEAR**

In 2012, 97 per cent of pension payments were made by electronic transfers.
Introduction

Motivation and contribution

The World Bank’s 2012 report entitled General Guidelines for the Development of Government Payment Programs includes the following recommendations for governments:

• Review and streamline treasury processes, then work on their automation;

• An appropriate legal framework with specific applicability to government payment programs can further underpin their safe and efficient operation;

• An appropriate payments infrastructure should be in place;

• Adopt a strategic approach to the development of government payment programs; and

• Leverage on government payment programs to promote financial inclusion.\(^1\)

The World Bank report highlights the effort by the government of Mexico to centralize its payments as a success story.\(^2\) Over a period of some 15 years, the Treasury (Tesofe), a division of the Mexican Ministry of Finance, in conjunction with the Mexican central bank, has led a change process resulting in a system that by November 2012 made 10 million government payments in a single month, delivering substantial cost savings to government.

This Better Than Cash Alliance case study confirms the general findings of the World Bank report. But because of the breadth of its scope, that report was only able to hint at the lessons to be drawn from the Mexico case that are valuable to the Better Than Cash Alliance’s stakeholders, particularly government policymakers.

Critically, this case study distinguishes between making electronic payments and making electronic payments centrally. The government of Mexico tried to do more of both, and it has found that the former preceded the latter. And, while shifting government payments from cash to electronic will generally produce benefits, the Mexican case shows that the greater
cost savings to government will likely come from the centralization of payment processes.

Two aspects of this case further set it apart from what has been written previously:

1. This case provides, for the first time, a compilation of detailed data both to understand the extent of the shift across different areas and to support the finding that centralizing federal government payments saved money; and

2. This case draws on new interviews with leaders of the change process and affected agencies to understand how the Mexican government achieved its goals: the necessary sequencing; the key champions; the drivers and barriers; and the competing interests of winners and losers. This understanding helps inform the wider lessons that can be drawn from the specifics of the Mexican case.

Focus and scope

This case study focuses on the federal government of Mexico as the payer. State and local government spending in Mexico is not only done by each entity independently but is often opaque to federal government policymakers, so little is currently known about the mode of payments on these levels on a consolidated basis.

In the context of the payment grid introduced in the Better Than Cash Alliance White Paper and shown in Figure 1 at left, the focus here is on individuals — government employees, pensioners and recipients of government transfer payments — as the payees. Payments between entities of the federal government are already all done electronically. Centralizing payments by the federal government to suppliers (businesses) was achieved quickly and easily, relative to payments to individuals; this piece of the story is covered only briefly.
Outline

Section II of this case study presents the history of centralizing government payments through the Treasury Single Account (TSA), a process now over 15 years long, through the lens of the legal, technical and operational milestones. That history is one of consistent, top-down pressure; and it hinges on the Budget Decree of 2010, which mandated government agencies to plan for, and comply with, centralizing their payments.

The following three sections focus on the three types of government-to-person payments: salaries, pensions and cash transfer payments. Each payment type had been shifted to electronic means to a different degree prior to the budget decree, and further digitizing these payments and centralizing them required coordinating a different set of actors.

Section III looks at payments of government salaries. At the time that the legal and technical mechanisms were put in place to allow for centralized salary payments in 2009, 25% of federal employees were paid electronically and centrally. And by 2012, 50% of all federal employees were paid electronically and centrally; the figure was 74% for employees of those government agencies specifically mandated to centralize their salary payments. This increase cut into the influence of the leaders of many different agencies, each of which previously had its own bank account — a favourable relationship for the agency leaders and the banks.

Section IV describes the centralization of pension payments. For over a dozen years, the two agencies responsible for pensions had already been increasing the percentage of payments made electronically, even providing incentives to pensioners to accept their payments that way. So when 2011 pension payments were centralized, the shift quickly covered nearly all of the country’s 3.5 million pensioners.

Section V is a more cautionary tale. Government cash transfers — through social welfare programs aimed at the poor, the elderly and farmers — are now largely paid by electronic means to urban recipients. But payments
to rural recipients remain dominated by cash due to an ongoing lack of infrastructure in rural areas; there has been little coordinated government leadership and banks see no clear business models to develop these channels.

These sections also attempt to calculate the cost savings to government of centralizing payments. In the Mexican context, the infrastructure that allows for these payments was paid for by the government (Tesofe and the central bank). But these costs were not rigorously recorded at the time, and hence they are not included here. So the estimates of cost savings should not be taken as immediately transferrable to other country contexts.

Section VI concludes with key lessons for government policymakers and other Better Than Cash Alliance stakeholders outside of Mexico.
2 Legal and Technical Development of Centralization

Macro-economic context
In December 1994, Mexico abandoned its fixed exchange rate mechanism for the peso, precipitating a severe economic downturn and banking crisis. The so-called “Tequila Crisis” forced the country to recapitalize the banking system and try to regain access to international credit. It also led to a sharp drop in government expenditures. This meant that the Ministry of Finance (MoF) in the administration of President Ernesto Zedillo had an urgent need to improve its oversight and control of public spending.

At the time, federal government spending was highly decentralized: The treasury department in the MoF (called the Tesorería de la Federación, or Tesofe) maintained accounts at multiple commercial banks; each agency of the federal government (called Dependencias) had one or more of its own accounts, as well. So each month, the Dependencias requested their budgetary appropriation from Tesofe, Tesofe then transferred the money from its accounts into those of the Dependencias, where it sat until being disbursed (usually by checks, both to suppliers and employees), at which point the Dependencias would report their actual expenditures back to Tesofe (see Box 1 on page 8 for a depiction of the institutional structure).

The process provided ample opportunity for delay and confusion: Dependencias had to hand-deliver the paperwork that showed they were entitled to the transfer; Tesofe had a lot of discretion on the timing to execute it; and Tesofe had no means to assess whether the money was spent for the specific purpose for which it was authorized. There were no centralized guidelines for the remuneration banks had to offer the Dependencias in return for keeping the float in their accounts prior to disbursement.

1997-2000: Building SIAFF
The MoF, led by the Tesofe team, engaged in an ambitious project to process all federal government expenditures within a single IT
platform, and to centralize as many payments as possible in Tesofe. This IT platform would replace the paper budget requests and would let Tesofe make the payments on a first-come-first-served basis, directly to the recipients, to the extent possible, bypassing the bank accounts of the Dependencias.

Once the scope of the project was clear within the MoF, the MoF needed the support of the government to bring the Dependencias on board. In October 1997, President Zedillo issued a Presidential Decree mandating all Dependencias of the federal government to collaborate with the MoF to implement the Sistema Integral de Administración Financiera Federal, or SIAFF. According to the decree, SIAFF’s objectives were to:

- Improve the monitoring and control of revenues and expenditures of the federal government;
- Increase the interest earned on the cash the federal government maintains by disbursing the money on the same day payments are actually due, rather than letting it sit in Dependencias’ bank accounts for days;
- Facilitate and improve the quality and reliability of government’s accounting; and
- Facilitate the financial planning of government agencies.

The design of SIAFF was delegated to the MoF and its operation to Tesofe. No specific cost-benefit analysis was undertaken before launching such an ambitious project. The benefits were deemed so large and urgent that the project was regarded as self-evidently advantageous.

The MoF faced two challenges at this early stage: coordinating the necessary stakeholders and developing an appropriate IT platform. First, in negotiations among Tesofe, the Under-ministry of Expenditures (also part of the MoF) and Dependencias were organized to come up with the new processes for payment authorization and execution. The Dependencias’ staff, who had administered the paperwork of authorizations and payments for years, felt threatened by automation and resisted. Here the active engagement of the Minister of Finance was critical: “Without the full support and commitment of the Minister of Finance, as well as the Presidential support, it would have been impossible,” according to Jonathan Davis, who led Tesofe between 1995 and 2000. Second, to accommodate the disparate processes of the Dependencias, Tesofe constructed

“Without the full support and commitment of the Minister of Finance, as well as the Presidential support, it would have been impossible.”

Jonathan Davis, Head of Tesofe, 1995-2000
a bespoke IT platform. This avoided the tension of forcing compliance with centralized processes and IT requirements, but it also slowed the project’s momentum. “If I had to do it all over again,” Mr. Davis said, “I would definitely think about buying an off-the-shelf solution and change internal procedures as needed, rather than build a custom-made platform as we did.”

Tesofe officials today are unable to estimate the costs involved in the development of the SIAFF platform.

These officials recalled that guidance and support for this project from the International Monetary Fund (IMF) was key for its success. IMF experts showed Mexican officials examples of successful automation processes in other countries, and whenever specific issues came up, IMF staff could get answers either from within their ranks or from outside experts.

2001-2006: Suppliers come first

In parallel to the development of SIAFF, the central bank, Banco de México (Banxico), launched its first real-time gross settlement system (RTGS), called SPEUA, in 1999. A second generation of this system, launched in 2004 and called SPEI, makes it possible to transfer money between any two bank accounts in the Mexican banking system by issuing an instruction electronically. SPEI is now used by Tesofe to make centralized federal government payments.

Banxico officials do not have records of the costs of developing SPEI, but they estimated that doing it again would require a dedicated team, for 16 or 18 months, at a cost of MXN $12 million in today’s costs. The additional hardware, software licenses and telecommunication equipment would be another MXN $20 million, for a total estimated cost of MXN $30-35 million.

Though negotiations with the Dependencias were resolved earlier, the IT platform stalled, was re-launched in mid-2001, and was finally ready only in early 2002. Dependencias were connected to SIAFF, and the rules required by the 1997 Presidential Decree were released by the MoF in April 2002.

The rules established that any supplier of goods or services to Dependencias had to be paid into the supplier’s bank account directly by Tesofe. Dependencias had to submit to Tesofe lists of their suppliers, along with the identifying codes (called Claves Bancaria Estandarizada, or CLABEs) of the suppliers’ accounts. This process lasted through the second half of 2002; in April 2003, more than five years after the 1997 decree, Tesofe started paying suppliers centrally.
The process of wiring the money into the accounts of suppliers was still cumbersome, and the system could not yet handle a large volume of transactions. Tesofe would instruct Banxico via fax to make the transfer from Tesofe’s accounts at the central bank into the supplier’s account at any of the commercial banks. The central bank would then wire the money using SPEUA and send the details of the transaction to the receiving bank, also by fax.

During the remainder of the administration of President Vicente Fox, the legal framework for SIAFF was strengthened, the number of

The expenditures to which each Dependencia is entitled are contained in the yearly Budget Decree authorized by the Lower House of Congress. To pay out on any expenditure item, Dependencias must get the approval of that item by the Under-ministry of Expenditures, which ensures that Dependencias abide by what is provided in the Budget Decree. Once an expenditure item is authorized, Tesofe is instructed to disburse the payment.

Tesofe aggregates all the income of the federal government, manages its liquid assets, and executes the transfers needed for government expenditures. Tesofe holds its liquidity at a current account with the central bank (Banxico) from which it orders electronic transfers either to final beneficiaries or to the bank accounts of Dependencias.
At commercial banks that were specifically approved by Tesofe.

With payments to suppliers already centralized, Tesofe began working to make it possible to pay salaries of federal government employees centrally. Banxico was then paying its own employees electronically into bank accounts using SPEI. Tesofe and Banxico partnered to use that same infrastructure to pay all federal government employees in an overnight process by supplying the central bank with the CLABE of each employee’s account, as well as the amount and date of each transfer.

In February 2008, Banxico and Tesofe agreed on a fixed monthly fee for executing government payments through SPEI, regardless of the volume, which effectively reduced the marginal cost of additional payments for Tesofe to zero. And centralized salary payments — high-volume, high frequency payments — began in mid-2008, ten years after President Zedillo’s decree.

The synergies between Banco de México and Tesofe were a product of the fortuitous diffusion of committed, skilled leadership across the federal government. Guillermo Ortiz, who was the governor of the central bank when Tesofe asked for help with salary payments, had headed the MoF between 1995 and 1997 and was keen to see what he had started

2007-2009: Building capacity to support volume

An October 2007 law amendment, under the new administration of President Felipe Calderón, for the first time required Dependencias to abide by the rules on centralizing payments, and it supplanted SIAFF with a system called Cuenta Única de Tesorería (CUT). These reforms were pushed by the MoF without any resistance (but no special support, either) from Congress, nor were they public policy initiatives from the President’s office; they were seen as technical issues.

Under CUT, the only accounts authorized to make payments on behalf of the federal government were the Tesofe accounts and those accounts held by Dependencias declined. Tesofe concentrated all its liquidity on its account held at Banxico, and the number and percentage of agency suppliers paid centrally grew larger so that by 2006 virtually all suppliers were being paid from Tesofe by electronic transfer.

However, Tesofe was not yet directly involved in payments of salaries, pensions or transfer payments. Those developments required SPEUA to evolve: whereas the minimum transfer amount in SPEUA was MXN $50,000, SPEI allowed transfers as small as MXN $0.01, opening the door to the system’s use for retail transactions.

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as SIAFF succeed as envisioned. Agustín Carstens, the Minister of Finance at the time, together with Maria Eugenia Casar, Head of Tesofe from 2006-2009, agreed that Tesofe should be modernized, specifically by centralization and digitization. Carstens had worked for many years at the central bank and knew just how helpful Banxico could be in this process and Casar had recently lead a similar effort at the World Food Programme.

The partnership between Banxico and Tesofe benefited the central bank, too. In typical bank-to-bank transfers through SPEI, Banxico merely played a middle man role. But as the originator of transactions from Tesofe, Banxico was able to fully test the efficiency with which the various commercial banks, as payment recipients, operated SPEI. According to Banxico officials, this gave Banxico the evidence it needed to require banks to invest in improvements to their service of SPEI transfers, improvements that would have otherwise taken much longer.

2010: Budget Decree
The Budget Decree (which has the same effects as a law) for the fiscal year of 2010, issued at the end of 2009, mandated that:

“All Dependencias must draft a working program to establish concrete strategies and goals so that, starting in 2010, there is progress to the extent possible in making payments in electronic form, through deposits made by Tesofe to the bank accounts of a) beneficiaries of subsidy programs, b) public servants for their salaries, c) suppliers of goods and services, and d) persons under work for hire […] The said working programs must establish December 2012 as the last date to implement the payments in electronic form.

Though the 2007 law establishing CUT required compliance from Dependencias, the 2010 decree for the first time required them to develop plans for both digitizing and centralizing their payments. As was the case with the introduction of CUT, this was an initiative of the MoF without any involvement or particular interest either by other departments of the Executive or by Congress.

It is important to note several features of the budget decree:

- The mandates only applied to Dependencias under the direct influence of the federal government. Entities with budgetary independence, such as public sector companies (Pemex in the oil sector, CFE in the electricity sector), social security agencies (IMSS and ISSSTE), other autonomous institutions (Banxico, Federal Electoral Institute), those outside of the Executive branch (Legislative and Judicial branches),
and those deemed as National Security (Army, Navy, Ministry of Public Security, Attorney General’s Office), were exempt. However, if they chose to, these entities could request to coordinate their payment efforts with Tesofe.

- Cash transfer payments (called subsidies) were included in the budget decree for the express purpose of promoting financial inclusion through the lever of government-to-person payments. In 2009, for the first time the “promotion of the use of electronic payments and the bankarization of beneficiaries” is mentioned as one of the objectives of pursuing the centralization of payments in Tesofe.

In July 2010, a few months after the budget decree was passed, the MoF issued yet another decree, specifically on salaries. It required Dependencias to set a binding date, no later than July 2011, by which they had to comply with CUT for their salary payments.

**2011-2012: Expanding the 2010 decree**

Subsequent budget decrees have reiterated and strengthened the terms of the 2010 decree. The 2011 decree repeated the language from 2010. In the Budget Decree of 2012, IMSS and ISSSTE, the social security networks for private sector and public sector employees, were for the first time also required to plan for centralizing their payments. After a couple of small pilots at the end of 2011, Tesofe started paying pensions directly into the accounts of pensioners by March 2012.

Even more so than salaries, centralizing pension payments required a platform robust to scale: In 2012, as Figure 2 shows, the value of payments made by Tesofe to pensioners was 50% greater than those made to federal government employees. Tesofe credits million of accounts every month with relatively small amounts per transaction. In 2012, Tesofe executed

**FIGURE 2** Payments centralized in Tesofe

(Max$ Billion; millions of transactions)

```
<table>
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<th>Year</th>
<th>Salaries</th>
<th>Pensions</th>
<th>Subsidies</th>
<th>Total payments</th>
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<td></td>
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<td>64.52</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>74.41</td>
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<td></td>
</tr>
<tr>
<td>2012</td>
<td>97.76</td>
<td>146.54</td>
<td>3.44</td>
<td>227.74</td>
</tr>
</tbody>
</table>
```

Source: Tesorería de la Federación, SHCP
55.7 million payments through SPEI, more than 250,000 per working day. In the first few months of 2013, payments sent by Tesofe represented less than 1% of the value of transfers made through SPEI, but 34% of the volume.

By the end of 2012, about half of the salary payments and the vast majority of pension and supplier payments were centralized in Tesofe. However, only a tiny portion of transfer payments, MXN $3,442 million, or less than 4% of the value, was being disbursed centrally. This does not necessarily mean that such a small percentage of transfer payments were being paid electronically, rather that this is the category of G2P that has proven by far the most problematic to centralize.

**Conclusion**

At the end of 2012, a few days after President Enrique Peña Nieto took office, another Presidential Decree was issued with the aim of making the expenditures of the federal government more efficient and transparent. This decree repeated the same paragraph from the 2012 budget a year earlier, but it also added a more general requirement to centralize “every other payment under the modality and timing that Tesofe determines.”

For cash transfer payments in particular, the decree grants the MoF the power to determine the type of banking services to be contracted, depending on the profile and type of the beneficiaries and based on the policies issued by the National Council of Financial Inclusion.

At the time of writing, President Peña Nieto has sent to Congress a bill that, if passed, would centralize the payments of all primary and secondary teachers of public schools within Tesofe. Until now, these payments were made by states and municipalities out of federal budgetary appropriations. This is the single largest expenditure item of the federal budget and would mark a significant shift to centralized payments. This single change could result in a further MXN $16 billion of cost savings on top of the estimates of savings to date in this case study. Throughout this story that begins in the mid-1990s, it is remarkable that the basic idea was maintained of centralizing government payments and making them electronically from Tesofe, regardless of the change of administrations and even of governing parties as power shifted from the PRI to PAN after more than 70 years of PRI hegemony, and back from PAN to PRI in 2012.
3 Federal Salary Payments

A profitable but low-level equilibrium for electronic payments

Even before the 2010 budget decree, many Dependencias were already paying some or most of their employees electronically into bank accounts. Indeed, it was possible to shift the first batch of employees to centralized payments because their bank details were already on hand with the departments. That was often the case because Dependencias would independently make agreements with one or more banks to handle payroll and then require their employees to establish accounts with those banks. This arrangement encouraged banks to compete not for the employees’ banking business but rather to curry favour with the Dependencia staff setting those requirements. With centralized payments, however, the balance of power shifted: Employees could shop around for the best deal from banks, and then submit their CLABEs to their employers and hence to Tesofe.

Dependencias oppose centralizing

Government officials, fearing loss of power, resisted

It was not easy for the MoF, and the Tesofe team specifically, to force Dependencias to draft a working program in accordance with the Budget Decree of 2010. (As discussed in Section II, some agencies were exempt from the mandate.) Rather, Tesofe periodically reminded Dependencias about this obligation and lobbied with their administrative teams to take advantage of the new, more efficient infrastructure. Some Dependencias were openly hostile and asked for authorization to continue making payroll payments from their own accounts at commercial banks.

When asked, “What were the barriers to centralizing payments in Tesofe?” one observation made by every official interviewed, and indeed the first observation made by most of them, was that resistance came mainly from the administrative teams within Dependencias.
Most agencies paid commercial banks for payroll services by committing to maintain in their current accounts the equivalent of the amounts to be transferred for at least three working days, letting the banks earn interest on the float prior to disbursement to employees. Maintaining such large levels of outstanding balances made administrative officials at Dependencias valuable clients for banks whose sales teams could offer incentives for deposits... To the extent that payments were centralized in Tesofe, these incentives would be lost. The system also gave officials some discretion on how to spend at least a small portion of those balances, discretion that would be lost with centralization.

The data do not strongly suggest alternate explanations to officials’ reticence. For example,
Dependencias with the largest payrolls could be expected to have centralized the lowest percentage of their payments, given the difficulty of collecting so many bank account details across a large swath of the country. But as Figure 3 below shows, there is no clear relationship between the size of an agency’s payroll and the percentage centralized in Tesofe.

Being deemed essential for national security did not seem to make a Dependencia less likely to centralize, either. (Those agencies are highlighted in dark blue in Figure 3 above.) Actually, the Dependencias with the highest and lowest percentages of centralization of payrolls are the Navy and the Army, respectively. Both are relatively large and have personnel scattered around the country, including some in remote areas.

Adding to the contention that administrative officials have been the key barrier, banks have lobbied the MoF to delay the centralization process and maintain the profitable relationships with Dependencias. The two banks that at the time controlled most of Dependencias’ payrolls went to the extreme of warning (even threatening) Tesofe officials that if the previous arrangements of depositing payrolls three to four days in advance of disbursement were broken, the banks would start charging account management fees directly to employees and also retrieving the ATMs they had placed inside the Dependencias’ office buildings to service employees. These tactics influenced Banco de México’s decision to require banks to offer basic accounts with no fees in July 2007.

**Recipients did not seem to object to being paid electronically and centrally**

Lastly, Dependencias blamed the slow progress of centralization on employees themselves. (As the next sub-section shows, by 2012, even in the agencies covered by the mandate in the Budget Decree of 2010, 26%
Agencies are free to open no-fee accounts for their employees, and to work with unions to convince them about the benefits of electronic payments.

of employees were still not paid centrally, either because they did not have a bank account or because their employers did not make the arrangements for payment from Tesofe.)

Dependencias used two main arguments to justify the state of progress:

- According to the labor law (Ley Federal del Trabajo), a worker must consent before he or she can be paid through an electronic transfer, and getting this consent is difficult; and

- Unions advise their members to avoid bank transfers because, they say, these transactions entail high fees.

And there were two implicit arguments that came across during the interviews:

- That unions prefer that their members are paid by check so local union leaders can extract small payments from workers in return for delivering the checks to the workers; and

- That employees like to get paid by check because that gives them the excuse to get out of the office on pay day to cash the check, giving them a couple of free mornings every month.

It is true that employees must consent before agencies can pay them by electronic transfer. It is also true that workers dislike bank fees and that getting their consent may be tough if these fees are not reasonable. However, agencies are free to open no-fee accounts for their employees, and to work with unions to convince them about the benefits of electronic payments. Many Dependencias have a history of opening no-fee accounts for their employees prior to centralization. In fact, Tesofe has not registered any complaints by Dependencias or unions regarding fees charged by banks once these accounts start to be credited by Tesofe.

The claim that unions wish to preserve control over their members’ payments is difficult to substantiate. Indeed, two cases, both from the teachers’ union, among the country’s most powerful, suggest that this view may be overstated.

The federal government is in charge only of paying the salaries of high school (bachillerato) teachers throughout the country and also of all the teachers within Mexico City. States pay primary and secondary (educación básica) teachers in the rest of the country. In Mexico City in 2012, Tesofe paid 100% of teachers’ payroll through electronic transfers. This is hardly evidence of great resistance by this influential group to being paid into individual
bank accounts. It is also a sizable payroll of MXN $2,895 million a year, similar to the payroll of the Ministry of Foreign Relations or the Ministry of Economy, both of which have reached levels of centralized salary payments lower than that of teachers.

Up until 2006, the Ministry of Education (abbreviated SEP) paid high school teachers with checks. SEP officials decided to start paying by electronic transfers in 2007. As Figure 4 below shows, over the course of three years, SEP managed to open bank accounts for 82% of high school teachers and by the end of 2012 was paying 87% of them through direct transfer centralized in Tesofe. Officials in charge of this transformation say they did not encounter much resistance to opening accounts or delivering debit cards.

**FIGURE 4** Number of high school employees paid by SEP

Source: Secretaría de Educación Pública (SEP)
TABLE 1  Growth of salary payments paid centrally by Tesofe

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Million pesos</th>
<th>Million pesos</th>
<th>% of Total</th>
<th>Growth rate</th>
<th>Number of Employees</th>
<th>Million Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>161,244.50</td>
<td>40,966.96</td>
<td>25%</td>
<td></td>
<td>362,623</td>
<td>7.5</td>
</tr>
<tr>
<td>2010</td>
<td>172,272.00</td>
<td>64,527.82</td>
<td>37%</td>
<td>58%</td>
<td>426,481</td>
<td>13.0</td>
</tr>
<tr>
<td>2011</td>
<td>180,247.80</td>
<td>74,412.41</td>
<td>41%</td>
<td>15%</td>
<td>461,994</td>
<td>14.4</td>
</tr>
<tr>
<td>2012</td>
<td>194,655.40</td>
<td>97,761.04</td>
<td>50%</td>
<td>31%</td>
<td>522,271</td>
<td>15.8</td>
</tr>
</tbody>
</table>

Source: Informe Finanzas Públicas SHCP and Tesofe

Of the Dependencias mandated to centralize their payments under the Budget Decree of 2010, 74% of the total wage bill was paid centrally as of 2012. It can be inferred that the remaining 26% of mandated agencies’ wage bills were still paid by check or cash, constituting a substantial outstanding cash pool. Greater than 50% of the payroll of non-mandated agencies may in fact be paid electronically (but not centrally), but this information is not available from a central source. Interestingly, as Table 2 below shows, of the so-called national security entities, the Army and Public Security have centralized only 20% and 27% of total payments, respectively, yet

Outcomes: 50% centralized, MXN $5 billion saved annually

Payments

Table 1 below shows the salary payments made centrally by Tesofe from 2009, the first entire year that Tesofe was paying salaries centrally, through 2012. The value of payments more than doubled during this period, and by 2012 more than 520,000 employees were paid centrally every fortnight, corresponding to 50% of the federal government’s wage bill (though not necessarily 50% of the number of federal government employees, a figure not available from the Mexican government).
### TABLE 2: Growth of salary payments paid centrally by Tesofe

<table>
<thead>
<tr>
<th>Dependencia</th>
<th>Entities Mandated by Budget Decree</th>
<th>Entities outside Decree Coordinated by Dependencia</th>
<th>All Entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of the Presidency</td>
<td>94%</td>
<td>N.A.</td>
<td>94%</td>
</tr>
<tr>
<td>Government</td>
<td>93%</td>
<td>91%</td>
<td>92%</td>
</tr>
<tr>
<td>Foreign Relations</td>
<td>47%</td>
<td>81%</td>
<td>49%</td>
</tr>
<tr>
<td>Ministry of Finance</td>
<td>87%</td>
<td>92%</td>
<td>91%</td>
</tr>
<tr>
<td>Army</td>
<td>N.A.</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>84%</td>
<td>3%</td>
<td>71%</td>
</tr>
<tr>
<td>Communications and Transport</td>
<td>87%</td>
<td>53%</td>
<td>71%</td>
</tr>
<tr>
<td>Economy</td>
<td>89%</td>
<td>0%</td>
<td>54%</td>
</tr>
<tr>
<td>Public Education</td>
<td>58%</td>
<td>18%</td>
<td>54%</td>
</tr>
<tr>
<td>Health</td>
<td>76%</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>Navy</td>
<td>N.A.</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Labor</td>
<td>92%</td>
<td>18%</td>
<td>91%</td>
</tr>
<tr>
<td>Agrarian Reform</td>
<td>90%</td>
<td>100%</td>
<td>94%</td>
</tr>
<tr>
<td>Environment</td>
<td>92%</td>
<td>88%</td>
<td>91%</td>
</tr>
<tr>
<td>General Attorney</td>
<td>N.A.</td>
<td>77%</td>
<td>77%</td>
</tr>
<tr>
<td>Energy</td>
<td>90%</td>
<td>0%</td>
<td>53%</td>
</tr>
<tr>
<td>Social Development</td>
<td>27%</td>
<td>86%</td>
<td>35%</td>
</tr>
<tr>
<td>Tourism</td>
<td>86%</td>
<td>62%</td>
<td>78%</td>
</tr>
<tr>
<td>Internal Affairs</td>
<td>91%</td>
<td>86%</td>
<td>90%</td>
</tr>
<tr>
<td>Agrarian Courts</td>
<td>90%</td>
<td>N.A.</td>
<td>90%</td>
</tr>
<tr>
<td>Public Security</td>
<td>N.A.</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>Legal Advisory to the Presidency</td>
<td>88%</td>
<td>N.A.</td>
<td>88%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>74%</td>
<td>46%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source: Tesorería de la Federación, SHCP
the Navy has centralized all of its salaries, despite not being mandated to do so.

**Estimated cost savings to date**
Using the methodology outlined in Annex B, through centralizing federal salaries, the Mexican government has been able to achieve estimated cost savings in 2012 of some MXN $5 billion, or 2.6% of the federal payroll, based on the underlying categories. This calculation assumes the savings only on the payments actually centralized as of 2012. If the remaining estimated cash pool of MXN $50 billion per year in federal salaries still paid by check or cash were to shift entirely, an additional MXN $2.6 billion per year of savings would accrue. Note that there are additional benefits resulting from better cash flow forecasting and control by Tesofe over expenditure that are not captured here.

### Table 3 Growth of salary payments paid centrally by Tesofe

<table>
<thead>
<tr>
<th>Savings on:</th>
<th>Description of savings</th>
<th>MXN million</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Float</td>
<td>The interest earned by not having to deposit funds in advance of payments, using the appropriate Banxico rate and average of 3-day float period that applied previously.</td>
<td>37</td>
</tr>
<tr>
<td>2. Transaction fees</td>
<td>The estimated annual savings to government through not having to pay fees to banks for effecting the transfer, at the average assumed fee of MXN $4 per transfer.</td>
<td>126</td>
</tr>
<tr>
<td>3. Leakage</td>
<td>The assumed savings from reduction in losses due to unauthorized or incorrect payment of salaries. No known figure exists; this estimate uses the lowest end (5%) of the typical range of the proportion paid electronically.</td>
<td>4,888</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>5,051</strong></td>
</tr>
<tr>
<td>As % of the total annual federal salaries paid</td>
<td></td>
<td>2.6%</td>
</tr>
</tbody>
</table>
Section 4: Pension Payments

Making payments electronic before making payments centrally

IMSS, the social security agency for all private sector employees, paid pensions through Tesofe for the first time in 2012 — and 97% of the value was paid centrally in that first year. The speed of this shift is in startling contrast to the gradual progress of centralizing salary payments. But this was only possible because IMSS had already been increasing the percentage of pensions paid electronically for over a decade.

Until 1996, IMSS paid all its pensions in cash. Had this system continued, its burdens would have become even more apparent with the growing population of pensioners. Figure 5 below shows the increase in the number of pensioners from 1.6 million in 2000 to 2.6 million in 2012. Yearly amounts paid out by IMSS have increased accordingly, with a CAGR of 120,000

Pension payments made by IMSS

![Figure 5: Pension payments made by IMSS](Image)

Source: IMSS
of 9.2% in real terms between 2000 and 2012.

IMSS started to make an effort to open bank accounts for pensioners in 1996, but by 1998 only 1% of pensions was paid by bank transfers. In that year the agency began a more focused effort, which had two main components: partnering with commercial banks to open accounts, and convincing pensioners to take advantage of electronic payment services.

IMSS allowed banks to set up booths at IMSS offices (where people came to receive their pension payments) to encourage pensioners to open accounts and get paid by transfer. These accounts charged no fees as long as withdrawals were made at branches or ATMs owned by that particular bank.

Convincing pensioners entailed creative incentives. According to law, IMSS must pay pensioners during the first 12 working days of each month. IMSS spread out the payments, marking each pensioner with a pay day between one and 12 as the working date of the month that he or she would be paid. For its approximately 1.6 million pensioners in 2000, IMSS had the logistical problem of coordinating over 135,000 payments on each of those 12 days, and getting the correct day for each and every pensioner. Figuring that pensioners would prefer to receive their pensions in line with a typical monthly budget, IMSS offered to pay pensioners on the first business day of the month if they agreed to be paid into an account.

In addition to simply paying pensions, IMSS also authorizes loans equivalent to 12 months of pension payments at 0% interest, to be paid back in 12 months. Pensioners who agreed to be paid into an account were offered immediate responses to their loan applications.

No major barriers to digitizing
IMSS officials interviewed mentioned that there was some resistance to shifting from pensioners’ associations. These associations relied on the stream of pensioners coming in to paypoints to collect payments because it allowed the associations to have ongoing contact with members, collect membership contributions and solicit new members. However, this barrier did not prove to be significant in comparison with the incentives offered.

Outcomes: Nearly all centralized, MXN $11.5 billion saved annually
Payments
As Figure 6 below shows, by 2000 11% of private sector pensioners were paid by electronic transfer. This figure
increased every year to the point that by 2012, 97% of pensioners paid by IMSS were getting a transfer into their bank account every month. (The growth for ISSSTE, the public employee pension fund, is not available at this level, but the story is reportedly similar in proportions.)

Though IMSS and ISSSTE were exempt from the mandates in the Budget Decrees of 2010 and 2011, in 2011 these agencies engaged with Tesofe to begin centralization because of the cost savings they foresaw. By the end of 2012, when they were brought within the mandate, almost all of the two agencies’ payments that were already being made electronically had been centralized.

This meant that Tesofe paid out in pensions during 2012 MXN $146,544 million, 50% more than it paid out in salaries. And the 3.38 million pensioners (private and public sector) dwarfs the 522,000 federal employees Tesofe was paying directly by the end of 2012.
### TABLE 4

#### Annual cost savings for federal government on pension payments

<table>
<thead>
<tr>
<th>Savings on:</th>
<th>Description of savings</th>
<th>MXN million</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Float</td>
<td>The interest earned by not having to deposit funds in advance of payments, using the appropriate Banxico rate and average of 1-day float period that applied previously.</td>
<td>37</td>
</tr>
<tr>
<td>2. Transaction fees</td>
<td>The estimated annual saving to government through not having to pay fees to banks for effecting the transfer, at the average fee of MXN $4 per transfer paid previously by IMSS.</td>
<td>126</td>
</tr>
<tr>
<td>3. Leakage</td>
<td>The assumed savings from reduction in losses due to unauthorized or incorrect payment of pensions. No known figure exists; this estimate uses the lowest end (5%) of the typical range of the proportion paid electronically.</td>
<td>4,888</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>11,551</td>
</tr>
<tr>
<td>As % of total annual pensions paid</td>
<td></td>
<td>4.9%</td>
</tr>
</tbody>
</table>

**Estimated cost savings to date**

Using the methodology outlined in Annex B, through centralizing federal pensions of the IMSS and ISSSTE scheme (IMSS alone has 2.6 million pensioners), the Mexican government has been able to achieve estimated cost savings in 2012 of some MXN $11 billion, or 4.9% of the pensions paid, based on the underlying categories. This calculation assumes the savings only on the payments actually centralized as of 2012. The total value of savings here is higher than for salaries since a much higher proportion of pensions is paid electronically and is now centralized (97% vs 50%). The benefits of shifting the remaining cash pool are as a result much lower: an additional MXN $357 million per year.
5 Cash Transfer Payments

Context
The largest three federal cash transfer programs are Oportunidades, which aims to alleviate poverty through conditional cash incentives to poor families in exchange for health and education outcomes; Programa para Adultos Mayores, aimed at old age citizens; and Procampo, for farmers. Table 5 below summarizes 2012 transfers in these three programs and the number of beneficiaries in each.

To date, only Programa para Adultos Mayores and Procampo transfer payments have centralized a small amount of their transfers in TesoFe; in 2012 this amounted to MXN $3,442 million (or only 4% of the value shown above) paid directly into the bank accounts of beneficiaries.

<table>
<thead>
<tr>
<th>Table 5 Main federal cash transfer payments and beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program</strong></td>
</tr>
<tr>
<td>Oportunidades</td>
</tr>
<tr>
<td>Programa para Adultos Mayores</td>
</tr>
<tr>
<td>Procampo</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Source: Informe Finanzas Públicas SHCP; Sedesol; Sagarpa
These early attempts gave program administrators several insights about paying subsidies electronically, particularly about the little attention paid by banks to developing products for low-income cash transfer recipients or catering to their needs and complaints.

Oportunidades
Pre-decree: Experimentation with electronic payments

Both Oportunidades and Programa para Adultos Mayores are under the supervision of the Ministry of Social Development (SEDESOL). The first version of the Oportunidades program (called Solidaridad) was launched in 1997, and SEDESOL has continued to experiment with different ways to pay beneficiaries, many of whom live in remote and difficult to reach areas.

By the early 2000s, the Oportunidades payments were outsourced to Bansefi, a development bank whose mission is to promote financial inclusion, and Telecomm, the state telegraph company. Oportunidades made these two institutions compete for the business of paying transfers to beneficiaries — in cash at both fixed points (the companies’ own branches, third party branches such as those of cooperatives, gas stations) and at temporary points, where officers of Bansefi or Telecomm would set up for a day every couple of months.

SEDESOL first tried to make some Oportunidades payments electronically through a pilot program in 2004. Oportunidades opened an account at BBVA Bancomer and issued 150,000 beneficiaries debit cards against that account. SEDESOL paid Bancomer by committing to maintaining a certain float in the program’s account for a few days. The pilot was dropped quickly due to problems in the delivery of cards, high transaction costs and inadequate service for the beneficiaries. Another pilot in 2005, a partnership with Scotiabank that let beneficiaries cash out at gas stations, failed due to inadequate service for beneficiaries and coordination problems between the bank and the technology provider.

These early attempts gave program administrators several insights about paying subsidies electronically, particularly about the little attention paid by banks to developing products for low-income cash transfer recipients or catering to their needs and complaints.

So the next attempt to pay Oportunidades beneficiaries electronically began more modestly. The first step was a pilot, in 2008, in which the subsidies for 270 beneficiaries were distributed to 6 stores in the government-supported Diconsa network. (There are over 20,000 Diconsa stores, owned and run by local communities mostly in rural Mexico, offering food, health and
nutrition programs, and agricultural inputs. Some offer services such as phone calls and bill payment, as well. The beneficiaries then collected their payments, in cash, at the Diconsa stores, saving them and the program money compared with payments made through the temporary payment points.

In the next step, a pilot in 2009, payments for 34,000 beneficiaries were distributed to 230 Diconsa stores. Beneficiaries had to register at a store and provide their fingerprints in exchange for a debit card issued by Bansefi; then they could receive their payment by showing their cards and verifying their fingerprints in a point-of-sale device. The logic behind this system was that even though the payment still happened in cash, it catalysed the infrastructure and behaviour necessary to shift to electronic payments.

These tentative steps occurred in parallel to the lead-up to the Budget Decree of 2010. But SEDESOL and the Oportunidades team were primarily concerned with reaching eligible beneficiaries, rather than digitizing and centralizing payments or using payments as a lever for financial inclusion.

**Post-decree: Mandated to centralize, but struggling to digitize**

The inclusion of subsidy programs in the Budget Decree of 2010 forced SEDESOL to make this issue a priority. Officials interviewed said such a clear legal mandate with such a specific deadline was essential to focus their attention. In early 2010 SEDESOL created a working group to craft a strategy to convert as many payments as possible into electronic before the end of President Calderón’s term.15

SEDESOL solicited proposals from Bansefi and Telecom, which until then had competed for the payments business. The proposal requirements included an identity card with biometric information, a platform that would allow beneficiaries to receive other financial services, and the creation of an ecosystem for usage.

Oportunidades chose to outsource all its payments to Bansefi, with Telecom and Diconsa as its subcontractors. Beneficiaries in areas with traditional banking infrastructure would receive their transfer into a Bansefi account and would be issued a debit card, which could be used at any bank’s ATM, with fees paid by Bansefi, and at points of sale. (This plan was called the “open card network”.) The rest of the beneficiaries would be paid similarly to the second Diconsa pilot discussed above: they would have a debit card embedded with their fingerprint, but they could only cash out at points owned by Bansefi or Telecom or...
at Diconsa stores. (This was the “closed card network.”) Beneficiaries in the second group would gradually be shifted into the first, meaning they would have access to a fully functioning account and debit card, as Bansefi rolled out its cash-in/cash-out network, including by making Diconsa stores into bank agents. According to McKinsey calculations at the time, if all Diconsa stores were converted into bank agents, they could be used to pay 3.5 million of the 6.5 million Oportunidades beneficiaries at no more than 3 km away from their homes.16

Despite the earlier pilots, the effort to make Diconsa stores into cash-out points, and to convert them into bank agents, failed. By the end of 2012 only 6,326 stores were being used for the payment of cash transfers, comprising only 9% of total Oportunidades payments. This compares to the original plan of using Diconsa stores for 54% of beneficiaries, substituting for the temporary points that are still used for the majority of payments. By the end of 2012, only 297 Diconsa stores had been approved to act as bank agents (and therefore able to offer cash-in and other financial services) by the National Banking and Securities Commission, and even these were operating at very low volumes.

Table 6 below shows how the beneficiaries of Oportunidades were being paid by 2012. Almost a fifth of the program was being paid into general purpose bank accounts distributed on the “open card network.” The remaining 81% were effectively being paid in cash, using a limited purpose card either through a fixed point (20% of the total) or a temporary point (61% of the total). All beneficiaries received a limited purpose Bansefi account and a debit card encoded with their fingerprints on the chip. However, given the lack of wider infrastructure to use the Bansefi card in rural areas, it does not seem likely that the majority of Oportunidades beneficiaries will be able to use electronic value any time soon.
Barriers: A leadership vacuum
The failure to date of Oportunidades to shift all beneficiaries to electronic payments into mainstream bank accounts, and also to centralize its payments through Tesofo after being included in the mandate, appears to lie in a lack of consistent champions in the Diconsa network, SEDESOL and also the MoF.

Diconsa’s regional council managers saw the program as a burden, not as an opportunity to bank their customers and induce them to spend some of their cash transfer payment in the store. This problem could have been caused by a misalignment of the incentives for store managers. Also, two key Diconsa executives who drove the project left partway through, and no senior management seems to have taken over the responsibility.

It is also surprising that there was no apparent leader of this program in either SEDESOL or the MoF. This made it impossible to sort out the difficulties that emerged in 2010. Even at that time, McKinsey warned that a “primary challenge in establishing this project has been building and managing the partnerships among different players (government, telcos, banks, technology providers). The concepts are not radically new, but the level of coordination is.”

### TABLE 6  
Payment mechanisms for Oportunidades beneficiaries as of 2012

<table>
<thead>
<tr>
<th></th>
<th># of Beneficiaries</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>6,500,858</td>
<td>100%</td>
</tr>
<tr>
<td><strong>OPEN CARD NETWORK</strong></td>
<td>1,263,920</td>
<td>19%</td>
</tr>
<tr>
<td><strong>CLOSED CARD NETWORK</strong></td>
<td>5,236,938</td>
<td>81%</td>
</tr>
<tr>
<td><strong>Fixed Point</strong></td>
<td>1,276,984</td>
<td>20%</td>
</tr>
<tr>
<td>Diconsa</td>
<td>567,644</td>
<td>9%</td>
</tr>
<tr>
<td>Bansefi branch</td>
<td>141,991</td>
<td>2%</td>
</tr>
<tr>
<td>Cooperatives branch</td>
<td>423,705</td>
<td>7%</td>
</tr>
<tr>
<td>Telecom office</td>
<td>132,946</td>
<td>2%</td>
</tr>
<tr>
<td>Gas stations</td>
<td>10,698</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Temporary Point</strong></td>
<td>3,959,954</td>
<td>61%</td>
</tr>
<tr>
<td>Bansefi</td>
<td>1,340,707</td>
<td>21%</td>
</tr>
<tr>
<td>Telecom</td>
<td>2,619,247</td>
<td>40%</td>
</tr>
</tbody>
</table>

**Programa para Adultos Mayores**
**Pre-decree: Cash less costly in the short term**

Programa para Adultos Mayores launched in 2007 and was initially only targeted at beneficiaries in rural areas. It relied on the same means of distribution as did Oportunidades, the fixed and temporary points managed by Bansefi and Telecom. But by 2009 and 2010, the program’s expansion was putting pressure on this distribution arrangement. Further, because the program was in rural areas, it could not rely on traditional bank infrastructure.
SEDESOL was also under particular pressure by Congress to keep the administrative costs of this program to a minimum.

Given these difficulties, Programa para Adultos Mayores managers did not want to experiment with novel payment mechanisms that would increase the cost of disbursement, at least in the short run. Whereas they were paying an average of MXN $22 per payment in cash to Bansefi and Telecomm under the traditional scheme, under the new one that Bansefi proposed (the one selected by Oportunidades) the cost would increase to MXN $34 per deposit, plus a one-time MXN $70 charge for enrolling each beneficiary into the program using biometrics and delivering his or her debit card.

Post-decree: Rural areas remain cash-heavy, but electronic works for urban

So despite the mandate, Programa para Adultos Mayores continued to pay in cash through Bansefi and Telecomm. But in 2011, the program was expanded to urban areas, to begin in 2012. The program needed to set up a payment mechanism in urban areas that was massive (approximately 1.5 million recipients), quick to set up and relatively inexpensive. Managers of Programa para Adultos Mayores decided to engage with the three largest retail banks (BBVA Bancomer, Banamex and Banorte).

Under the arrangement, banks give debit cards (with no chip, unlike the cards for Oportunidades) to SEDESOL. SEDESOL enrols beneficiaries and takes their fingerprints, and then gives them a card; SEDESOL then sends the beneficiary’s basic information along with the card number he or she received to the specific bank to which it has assigned that beneficiary. The bank opens a no-fee debit account for each person enrolled in the program. Tesofe wires money to the SEDESOL account in each of the three banks in the program one day prior to disbursement, and banks charge SEDESOL MXN $12 per transfer to the beneficiaries. The debit cards are fully functional and there is no fee for on-us withdrawals.

Programa para Adultos Mayores was quite successful at enrolling urban beneficiaries and distributing debit cards in a short time. By 2013, they had enrolled 1.5 million beneficiaries and started paying cash transfers electronically into their accounts.

Once these urban beneficiaries were paid electronically, Programa para Adultos Mayores moved swiftly to centralize the payments with Tesofe to further decrease costs. By April 2012, Tesofe was paying the first few beneficiaries centrally using their accounts’ CLABEs.

Since this arrangement side-stepped SEDESOL’s accounts at the commercial
banks, the banks resisted, especially since they had not charged SEDESOL or the beneficiaries for opening the accounts. Program managers and Tesofe reached a new agreement with the banks. Once Tesofe started paying directly into beneficiaries’ accounts, it would deposit an additional negotiated amount into each account. This additional payment would then be used by the beneficiaries to cover the banks’ fee for account management. Programa para Adultos Mayores agreed to pay the fee for the next two years, so that in the meantime banks could work towards tailoring products to these clients and cross-sell these new products, making these clients profitable on their own and not dependent on the account management fee. Through this arrangement, the beneficiaries are able to withdraw their payments and also have access to formal financial services.

By the first few months of 2013, most of the cash transfers for urban beneficiaries were being paid centrally from Tesofe.

**Procampo**

**Pre-decree: Electronic payments for those farmers near banks**

Procampo makes a fixed payment per hectare twice per year to farmers throughout the country. Beneficiaries are more heterogeneous in terms of their income and socio-economic condition than in other cash transfer programs. This meant that even before there was a clear policy
of shifting payments to electronic transfers, a portion of the program was paid into the bank accounts of beneficiaries. (The average transfer is of approximately MXN $3,000.) The other difference, relative to Oportunidades and Programa para Adultos Mayores, is that checks, rather than cash, are the predominant non-electronic means of payment.

In 2007, the Ministry of Agriculture (SAGARPA), which manages Procampo, began a conscious effort to substitute, to the extent possible, the use of checks with electronic transfers. There were three main reasons for this. First, to decrease the administrative cost of the program; second, to make it more convenient for beneficiaries; and third, to minimize the opportunities for leakage in the payment process. A fourth benefit, which became clear later, was to make it easier for recipients of the transfer to get liquidity from their banks ahead of the date of the transfer payment, since banks knew they would be getting the transfer.

SAGARPA engaged with BBVA Bancomer, Banamex and Banorte, as well as with Banco Inbursa and Banco Azteca. SAGARPA mapped the infrastructure of each of these banks and decided to shift to electronic payments those beneficiaries who lived near the banks; it then paired each beneficiary with a bank according to location; and the bank opened an account for the beneficiary and issued a debit card.

Procampo pays the bank MXN $2.50 per transfer and commits to depositing the float three days in advance of disbursement to the beneficiaries. When paid by check, the bank charges MXN $10.59 once the check is cashed. Procampo calculated that this initiative saved SAGARPA 76% relative to payment by checks. Account reconciliation, too, is much easier and cheaper with transfers.

Post-decree: A boom in electronic payments, but still little centralization

After the Budget Decree of 2010, Procampo set as a target to add 2.53 million beneficiaries to the direct deposit scheme by the end of 2012. This target was almost reached, as 2.50 million beneficiaries had a new account opened or started being paid into existing accounts. Out of the beneficiaries who had a new account opened, approximately 90% did not have another bank account.

Telecomm reports that when Procampo payments are made in certain regions, there is a surge in the demand for cash on the Telecomm offices that work as agents for the largest banks. This presents a challenge for cash management, and it also points to the lack of infrastructure for electronic payments in these areas.
The managers of the cash transfer programs have yet to demonstrate clear leadership on developing an electronic payments ecosystem for their beneficiaries.

As Figure 7 below shows, there has been a steady decrease of the proportion of Procampo beneficiaries being paid in cash, and a corresponding rise in the proportion of payments made by electronic transfer, from 39% in 2007 to 75% by 2012.

Outcomes: This shift has been slowest

Estimated cost savings to date
Using the methodology outlined in Annex B, the shift to centralized electronic payments for the three major federal cash transfer schemes has resulted in estimated cost savings in 2012 of some MXN $900 million, or 0.9% of the total transfers of MXN $95 billion. This figure is still low since only 4% of the total value has been centralized.

FIGURE 7 Payment mechanisms for Procampo payments (MXN millions)
### TABLE 7  Annual cost savings for federal government on pension payments

<table>
<thead>
<tr>
<th>Savings on:</th>
<th>Description of savings</th>
<th>MXN million</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Float</td>
<td>The interest earned by not having to deposit funds in advance of payments, using the appropriate Banxico rate and average of 1-day float period that applied previously.</td>
<td>37</td>
</tr>
<tr>
<td>2. Transaction fees</td>
<td>The estimated annual saving to government through not having to pay fees to banks for effecting the transfer, at the average fee of MXN $4 per transfer paid previously by IMSS.</td>
<td>126</td>
</tr>
<tr>
<td>3. Leakage</td>
<td>The assumed savings from reduction in losses due to unauthorized or incorrect payment of pensions. No known figure exists; this estimate uses the lowest end (5%) of the typical range of the proportion paid electronically.</td>
<td>4,888</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>11,551</strong></td>
</tr>
</tbody>
</table>

As % of total annual pensions paid  

This calculation assumes the savings only on the payments actually centralized as of 2012, which remains low at 4% of the total value. The cash pool remaining to be shifted is proportionately much higher at MXN $63.6 billion per year. The cost savings from achieving the full shift may exceed MXN $7 billion per year, or 7.5% of the total combined annual expenditures of these programs.
Lessons for The Better Than Cash Alliance Stakeholders

Context
This case study reviews the development and impact of making many of the Mexican federal government’s payments electronic and paid through a single centralized system. Unlike Better Than Cash Alliance diagnostics, this and other Better Than Cash Alliance case studies do not aspire to analyse the entire payments ecosystem, nor do they address broad issue areas like financial inclusion or financial education. Rather, case studies focus on specific efforts to shift specific types of payments to electronic means — in this case, the Ministry of Finance-led effort to shift government payments.

Before turning to this case’s key lessons, it is worth enumerating certain aspects of the particular Mexican context. Mexico:

- Is a G20 member and an upper middle income country, and like others in this classification it has extensive social transfer schemes;
- Has a federal government system with limits on the mandate and authority of central government;
- Has a relatively developed payments system, which facilitated the ability to pay to any bank account;
- Has a strong technical capability in key government departments (such as Tesofe and the central bank) which enabled complex processes to be re-designed and implemented; and
- Invested resources over an extended period, costs that in other contexts would be borne by the private sector (i.e. SPEI instead of a bank-owned ACH); but
- Has a relatively weak distribution of financial access points in rural areas, which has constrained the electronic delivery of social transfers in particular.

Even allowing for these specifics, this case yields a number of insights that are relevant for government ministers and officials contemplating a shift towards electronic payments.
A single decree cannot force the shift overnight; but sustained pressure by senior champions — political and technical — can be effective.

**Lessons**

First, a single decree cannot force the shift overnight; but sustained pressure by senior champions — political and technical — can be effective. The 2010 budget decree that mandated certain government departments shift to centralized electronic payments was not the beginning of the shift, as the timeline in Annex A shows. Over the previous decade, the effort had been supported by Ministers of Finance across three different Presidential administrations, including a change of governing party. Without such senior level sponsorship, the case suggests that progress would have been at best much slower, and at worst, lost momentum altogether. At a technical level, the shift was designed and supported by a core group of skilled senior civil servants within Tesofe, in cooperation with other key agencies such as the central bank, which has been remarkably stable during the journey. Without this technical competence, the complexity of the process may well have caused it to stall. Over this period, senior officials have also circulated from Ministry of Finance to appointments in other agencies and departments in Mexico, helping to spread support and understanding of the changes into line departments like SEP and enablers like Banxico.

The Mexican government may now be saving MXN $17 billion per year, or 3.3% of its total expenditure on wages, pensions and social transfers.
The journey started with building the legal and technical infrastructure.

Over the decade preceding the 2009 budget decree, the Ministry of Finance had successively (i) created the legal framework to enable centralized payments; (ii) built its own IT system for the authorization and processing of government payments; and (iii) the Central Bank had developed the national payments system to enable rapid, cheap transfer of funds to any bank account in the country. These three key enablers proved vital for the centralization of government payments in Tesofe. In Mexico’s case, the payment system (SPEI) is owned and operated by the central bank; in other countries, the payment system enabling bulk credits may be owned by private players; but in all cases, there is a need for a payment utility to process payments on a large scale. Despite these key enablers, however, the cash handling infrastructure in rural areas was inadequate to support the large social transfer schemes targeted at recipients in these areas. This remains a key priority.

The analysis here, which compiles numbers across the different G2P areas, suggests that the Mexican government may now be saving MXN $17 billion per year, or 3.3% of its total expenditure on wages, pensions and social transfers. However, the cost of building the infrastructure was not rigorously recorded, perhaps due to changing personnel over time. The benefits were seen to be sufficiently large and self-evident as not to require full justification. This affects the evaluation of the shift’s cost savings. Especially in countries where the infrastructure must come from private sector investment, the shift’s benefits should be discounted using the infrastructure’s up-front costs. The Mexican journey has proceeded through prioritized stages. Tesofe started the process with centralizing G2B supplier payments, before moving on to G2P from 2008. Within G2P, the starting point was the payment of salaries for federal employees, although even in this category, the situations of different Dependencias varied greatly: some Dependencias which were mandated to centralize salary payments have struggled to achieve this, while other departments not legally required to centralize, such as the Navy, have already fully shifted. Even though not mandated, pensions have proven relatively easy to shift to central payments in the past year because of the decade-long process of shifting pensioners to receive payments into their bank accounts. The process of shifting social transfers under the main federal programs has made good progress in urban areas, but the shift lags in the rural areas and has not even begun at the state level.
**MEXICAN CASE STUDY**

**4 Mexico’s shift was two-dimensional: towards electronic payments and towards centralized payments.** It is possible to shift towards electronic G2P without necessarily centralizing the payments through a Treasury Single Account. Indeed, the move towards electronic transfers was well underway in Mexico before the 2010 decree accelerated the process; however, it was happening at different speeds in different agencies in a manner where each agency set its own policies and negotiated its own deals with payment banks. This patchwork approach resulted in some cases in higher, not lower, costs in the short to medium run: in Oportunidades for example, the cost per payment initially rose when the function was transferred fully to state bank Bansefi in 2010, in part because of the need to build out the payment infrastructure.

However, the case of Mexico shows that the real benefits come when electronic payments are combined with treasury centralization: centralization definitively reduced costs to government through reducing the float otherwise held at multiple banks, and by using the central bank’s payment system at zero marginal cost to effect the payment, rather than paying a fee per transaction to banks. In addition, centralization allowed for better controls (97% of savings in salaries and 98% in pensions came from reducing leakage), budgeting and oversight by Tesofe over all federal expenditure. For workers or recipients, centralization also widened their choice of banks: instead of being limited to the payroll bank or banks with which his or her agency contracts, the recipient can choose an account at any bank. This is likely to improve competition and service levels at banks compared to the captive situation common before. Lastly, centralization seems to make the process of digitizing payments difficult to reverse, relative to the case where electronic payments are left to each agency to manage.

**5 Not everyone has gained from the shift.** The case makes clear that losers include those large banks that were accustomed to holding lucrative government deposit floats under the decentralized process while payments cleared. These banks fought the changes initially. In addition, they now have to compete for the business of the end client, who is no longer captive to using one bank’s account only to receive his or her salary or pension. The finance staff within large government departments also lost influence when their payrolls were centralized. Identifying the winners and losers in advance so as to design appropriate incentives is a key part of a successful change strategy. The influence of the central bank was important to keep banks in line.

Identifying the winners and losers in advance so as to design appropriate incentives is a key part of a successful change strategy.
Carefully designed incentives to shift have helped to persuade end recipients. As the case explains, the law required that government obtain the consent of workers before shifting their means of payment. The recent example of shifting all high school teachers in Mexico City to centralized payments suggests that a well planned process which minimizes confusion or inconvenience to the recipient goes a long way to overcome resistance. In addition, the pension agency IMSS designed key incentives for pensioners to adopt electronic payments, such as expediting loan approvals on electronic payments and accelerating the date of payment to the first possible day instead of up to 11 working days later.

During the past three years, Mexico’s government has also ramped up its commitment to promoting financial inclusion, announcing various commitments as part of its Maya Declaration in 2011 and mainstreaming this objective into the mandates of government agencies like the financial regulator CNBV. However, in Mexico’s ‘big push’ around G2P, financial inclusion so far has largely been a secondary objective of the government, and also the one least achieved by outcome. Most of the shift to date has happened with government employees and pensioners who are neither poor nor, in most cases, previously excluded from formal financial services. However, the quality of these recipients’ access to financial services has been improved through the introduction of a choice of bank account. The digitizing of social cash transfers clearly has the most potential to advance financial inclusion among the poor and excluded. Although progress has been made in opening bank accounts for recipients, especially in urban areas with Programa para Adultos Mayores and in rural areas with Procampo, most recipients today do not yet have account-based access to what has elsewhere been called a mainstream bank account. To change this will require a concerted effort to roll out a nationwide agent network with adequate liquidity to support voluntary cash-in and cash-out in rural areas.

The Mexican government’s shift is the story of a sustained effort over time driven by successive Ministers of Finance who were sure of the ultimate benefits to government. The benefits have not come from making electronic payments into bank accounts alone, but from the complex and painstaking process of re-engineering the way in which the central government makes all its payments. In 2013, after a sustained effort and significant momentum following budget decrees in 2010, 2011, and 2012 Mexico’s shift is by no means complete but there are signs that it is now accelerating.
### ANNEX A: LIST OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM</td>
<td>Automated teller machine</td>
</tr>
<tr>
<td>ACH</td>
<td>Automated Clearing House</td>
</tr>
<tr>
<td>Banxico</td>
<td><em>Banco de México</em> — Central Bank of Mexico</td>
</tr>
<tr>
<td>CFE</td>
<td><em>Comisión Federal de Electricidad</em> — The state-owned electricity company</td>
</tr>
<tr>
<td>CLABE</td>
<td><em>Clave Bancaria Estandarizada</em> — The standardized number that identifies every bank account in the system so wire transfers can be made to them.</td>
</tr>
<tr>
<td>CUT</td>
<td><em>Cuenta Única de Tesorería</em> — Mexico’s TSA</td>
</tr>
<tr>
<td><strong>Dependencias</strong></td>
<td>Federal government agencies</td>
</tr>
<tr>
<td>G2B</td>
<td>Government-to-Business</td>
</tr>
<tr>
<td>G2P</td>
<td>Government-to-Person</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>IMSS</td>
<td><em>Instituto Mexicano del Seguro Social</em> — Social security institute that manages the pension and other social security programs of private sector employees.</td>
</tr>
<tr>
<td>ISSSTE</td>
<td><em>Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado</em> — Social security institute that manages the pension and other social security programs of public sector employees.</td>
</tr>
<tr>
<td>IT</td>
<td>Information technology</td>
</tr>
<tr>
<td>MoF</td>
<td>Minister of Finance</td>
</tr>
<tr>
<td>POS</td>
<td>Point of sale device</td>
</tr>
<tr>
<td>PAN</td>
<td><em>Partido de Acción Nacional</em> — Party in power between 2001 and 2012</td>
</tr>
<tr>
<td>Pemex</td>
<td><em>Petróleos Mexicanos</em> — The state-owned oil company</td>
</tr>
<tr>
<td>PRI</td>
<td><em>Partido Revolucionario Institucional</em> — Party in power until 2000 and again in 2013</td>
</tr>
<tr>
<td>RTGS</td>
<td>Real-time-gross-settlement</td>
</tr>
<tr>
<td>SAGARPA</td>
<td><em>Secretaría de Agricultura Ganadería Desarrollo Rural Pesca y Alimentación</em> — Ministry of Agriculture</td>
</tr>
<tr>
<td>SEDESOL</td>
<td><em>Secretaría de Desarrollo Social</em> — Ministry of Social Development</td>
</tr>
<tr>
<td>SEP</td>
<td><em>Secretaría de Educación Pública</em> — Ministry of Education</td>
</tr>
<tr>
<td>SIAFF</td>
<td><em>Sistema Integral de Administración Financiera</em> — Integrated System of Federal Financial Administration</td>
</tr>
<tr>
<td>SPEI</td>
<td><em>Sistema de Pagos Electrónicos Interbancarios</em> — Electronic Interbank Payments System, the ACH launched by Banxico</td>
</tr>
<tr>
<td>SPEUA</td>
<td><em>Sistema de Pagos Electrónico de Uso Avanzado</em> — Electronic Payments System of Advanced Use. First RTGS system launched by Banxico.</td>
</tr>
<tr>
<td>Tesoфе</td>
<td><em>Tesorería de la Federación</em> — Treasury Department within the MoF</td>
</tr>
<tr>
<td>TSA</td>
<td>Treasury Single Account</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
</tbody>
</table>
ANNEX B: CALCULATIONS OF SAVINGS

The calculations of cost savings are based on a standardized approach using assumptions relating to each major type of government payment, as shown in tables B1 and B2 below.

**TABLE B1** Comparison of federal government payments 2012

<table>
<thead>
<tr>
<th>Note</th>
<th>Federal salaries</th>
<th>IMSS and ISSSTE (pensions)</th>
<th>3 cash transfer programs</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>194,655</td>
<td>234,083</td>
<td>94,958</td>
<td>523,696</td>
</tr>
<tr>
<td>2</td>
<td>50%</td>
<td>97%</td>
<td>4%</td>
<td>63%</td>
</tr>
<tr>
<td>3</td>
<td>97,761</td>
<td>227,061</td>
<td>3,442</td>
<td>328,264</td>
</tr>
<tr>
<td>4</td>
<td>46,764</td>
<td>—</td>
<td>27,888</td>
<td>74,652</td>
</tr>
<tr>
<td>5</td>
<td>144,525</td>
<td>227,061</td>
<td>31,330</td>
<td>402,916</td>
</tr>
<tr>
<td>6</td>
<td>74%</td>
<td>97%</td>
<td>33%</td>
<td>77%</td>
</tr>
<tr>
<td>7</td>
<td>50,130</td>
<td>7,022</td>
<td>63,628</td>
<td>120,780</td>
</tr>
</tbody>
</table>

**BY NUMBER OF RECIPIENTS**

<table>
<thead>
<tr>
<th>Note</th>
<th>Total number of employees/pensioners/recipients</th>
<th>Payments each pa.</th>
<th>Total payments p.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1,314,526</td>
<td>24</td>
<td>31,548,622</td>
</tr>
<tr>
<td>9</td>
<td>12</td>
<td>5.12</td>
<td>42,354,965</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>63,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>136,903,587</td>
</tr>
</tbody>
</table>

Notes and sources:
1. As per sources in text
2. As per sources in text
3. Line 1 X Line 2
4. This line estimates the value paid into bank accounts but not through CUT: for salaries, on the assumption that the 74% norm of payment into bank accounts applies across all; and calculated across each of the three cash transfer schemes which have very different characteristics.
5. Line 3 + Line 4
6. Line 5/ Line 1
7. Line 1- Line 6
8. As per text; note that there is no known accurate total figure for all federal agency employees (in large part because not all are centralized) so this number is calculated by dividing the total federal salary bill by the average salary on the already centralized number. This approach likely understates the total, and therefore the savings calculated.
9. As applies to each type; for transfer programs, a weighted average is used since each differs in payment cycle.
10. Line 8 X Line 9
ANNEX B: CALCULATIONS OF SAVINGS

TABLE B2  Comparison of federal government payments 2012

<table>
<thead>
<tr>
<th>Note</th>
<th>Federal salaries</th>
<th>IMSS (pensions)</th>
<th>3 cash transfer programs</th>
<th>TOTAL</th>
<th>As % of total spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. FLOAT SAVED SO FAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average float time (days)</td>
<td>1</td>
<td>1,314,526</td>
<td>3,529,580</td>
<td>12,300,000</td>
<td>17,144,106</td>
</tr>
<tr>
<td>Float rate</td>
<td>2</td>
<td>4.49%</td>
<td>4.49%</td>
<td>4.49%</td>
<td></td>
</tr>
<tr>
<td>Value saved MXN mil</td>
<td>3</td>
<td>36.58</td>
<td>28.32</td>
<td>12.88</td>
<td>77.8</td>
</tr>
</tbody>
</table>

2. FEES SAVED

| Tx fee each                   | 4              | 4              | 4                       | 8     |                   |
| Total amount of fees saved on centralized p.a. | 5              | 126.2          | 169.4                   | 504   | 799.6             | 0.15%           |

3. LEAKAGE %: PRESHIFT

| Leakage reduction             | 6              | 5%             | 5%                      | 10%   |                   |
| Loss saved MXN mil            | 7              | 4,888          | 11,353                  | 344   | 16,585            | 3.17%           |
| TOTAL SAVINGS p.a.            |                | 5,051          | 11,551                  | 861   | 17,463            | 3.33%           |
| % of annual spend in this category | 2.6           | 4.9            | 0.9                     |       |                   |

Notes and sources:

1. The previous float period before centralization; in case of cash transfers, the pre-payment period for Bansefi is used.
2. This is the average fondeo bancario (overnight rate for interbank loans) in 2012 which is paid by Banxico on Federal government funds.
3. Line 1: 30 days X annual rate line 2 X average monthly amount paid (calculated from Table A1 above).
4. Based on current norms in each, based on IMSS actual; average assumed for transfer payments excluding cost to cash out one payment once transferred.
5. Line 4 X number of annual payments calculated in Table A1 above.
6. Assumed rate based on general norms — there are no specific numbers available in Mexico. The rate is lowest for salaries and payments which were already mainly paid into bank accounts before centralization; and higher for social transfers where the majority remains cash paid. See below for sources and assumptions.
7. Line 6 X amount paid centrally in Table A1 above.
Leakage: sources and assumptions
Mexico has no known accurate measures of leakage. For the calculation, assumptions were drawn from the low end of estimates of savings as the result of the shift to electronic and centralized payments for salaries and pensions (5%) and cash transfer schemes (10%), which are more subject to leakage due to the variable amounts they often disburse, the judgment of conditionality, and the complexity of the enrollment process.

These estimates are drawn from a range of cross-country studies:

1. India G2P: McKinsey’s 2010 report *Inclusive growth and financial security: The benefits of e-payments to Indian society* estimated leakage separately for each program it considered, using international norms where no local estimate was available; and found it especially high for in-kind subsidies (36% in one) and lower for salaries and wages (1%). The total leakage rates for the rural cash-for-work scheme NREGA were estimated more typically to be 16-18% (Exhibit A5); and savings on losses due to leakage were responsible for 75-80% of the total inefficiencies (which also included transaction costs incurred by individuals, and hence is a lower proportion than the narrower measures of cost savings to government made here).

2. Multi-country cash transfers: In *Payment arrangements for cash transfers*, a review of a range of cash transfer schemes estimated that leakage on cash-paid schemes drops from 4-15% to less than 2% when electronic payments are made.

3. Multi-country G2P: World Economic Forum’s 2012 report *Galvanizing Support: The Role of Government in Advancing Adoption of Mobile Financial Services* states: “There is no conclusive study on the extent of leakage, but estimates suggest that leakage affects 5-25% of total benefits routed and accounts for 75% of total losses.”
### TABLE B3: Further possible savings from centralizing teachers’ salary payments

<table>
<thead>
<tr>
<th>Number of teachers</th>
<th>1,187,826&lt;sup&gt;24&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential amount centralized</td>
<td>MXN 306,431 million</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Savings on:</th>
<th>Definition</th>
<th>MXN million</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Float</td>
<td>The interest earned by not having to deposit funds in advance of payments, using the appropriate Banxico rate and average of 3-day float period that applied previously.</td>
<td>115</td>
</tr>
<tr>
<td>2. Transaction fees</td>
<td>The estimated annual savings to government through not having to pay fees to banks for effecting the transfer, at the average assumed fee of MXN $4 per transfer.</td>
<td>114</td>
</tr>
<tr>
<td>3. Leakage</td>
<td>The assumed savings from reduction in losses due to unauthorized or incorrect payment of salaries. No known figure exists; this estimate uses the lowest end (5%) of the typical range of the proportion paid electronically.</td>
<td>15,322</td>
</tr>
</tbody>
</table>

**Total** | **15,550** |

As % of total annual pensions paid | 5.1%
ANNEX C: Timeline of the Mexican Government’s shift 1997-2013

The Mexican Government shift

**Zedillo Administration**
- SIAFF Presidential Decree (Zedillo)
- Banxico launches SPEUA, a RTGS system

**Fox Administration**
- Rules of SIAFF published
- TESOFE starts paying suppliers centrally
- Banxico launches SPEI, ACH system

**Calderón Administration**
- Treasury Single Account (CUT) mandated in Law
- TESOFE paying most suppliers centrally
- TESOFE paying salaries centrally
- Basic back accounts introduced
- First Diconsa Pilot is launched
- TESOFE starts paying pensions centrally
- Budget Decree mandating agencies to centralize salary, subsidy and supplier payment at TESOFE by end 2012
- Pensions included in list of Decree
- Peña Nieto Administration
  - Presidential Decree mandating agencies to also centralize other payments that TESOFE determines
  - Banxico launches SPEI, ACH system
  - TESOFE paying salaries centrally
  - TESOFE paying pensions centrally
  - Law amendment sent to Congress proposing centralizing salary payments in TESOFE for all primary and secondary teachers

---

**1997**
- SIAFF Presidential Decree (Zedillo)

**1998**
- Rules of SIAFF published

**1999**
- TESOFE starts paying suppliers centrally

**2000**
- Banxico launches SPEUA, a RTGS system

**2001**
- Treasury Single Account (CUT) mandated in Law

**2002**
- TESOFE paying most suppliers centrally

**2003**
- TESOFE paying salaries centrally

**2004**
- Basic back accounts introduced

**2005**
- First Diconsa Pilot is launched

**2006**
- TESOFE starts paying pensions centrally

**2007**
- Budget Decree mandating agencies to centralize salary, subsidy and supplier payment at TESOFE by end 2012

**2008**
- Pensions included in list of Decree

**2009**
- Peña Nieto Administration

**2010**
- Presidential Decree mandating agencies to also centralize other payments that TESOFE determines

**2011**
- Banxico launches SPEI, ACH system

**2012**
- TESOFE paying salaries centrally

**2013**
- TESOFE paying pensions centrally
- Law amendment sent to Congress proposing centralizing salary payments in TESOFE for all primary and secondary teachers
MEXICAN CASE STUDY

ANNEX D: LIST OF REFERENCES


EPRI. 2011. Payment arrangements for cash transfers.


Undated. Presentation about a project with The Bill & Melinda Gates Foundation to design and pilot a basic financial services offering through a network of 22,000 stores in rural Mexico. Provided to author.


____2012. Decreto que establece las medidas para el uso eficiente, transparente y eficaz de los recursos públicos, y las acciones de disciplina presupuestaria en el ejercicio del gasto público, así como para la modernización de la Administración Pública Federal.

SAGARPA. 2011. Evaluación de la bancarización de los beneficiarios del programa Procampo: Reporte de hallazgos y áreas de oportunidad.

Dirección General de Medios de Pago.


Secretaría de Hacienda y Crédito Público. 2002. Acuerdo por el que se establecen los lineamientos relativos al funcionamiento, organización y requerimientos de operación del Sistema Integral de Administración Financiera Federal.

## ANNEX E: LIST OF INTERVIEWEES

<table>
<thead>
<tr>
<th>Individual</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlos Benítez</td>
<td>IMSS</td>
</tr>
<tr>
<td>Guillermo Bernal</td>
<td>Instituto Nacional de Economía Social (INAES), previously employed at SEP and MoF</td>
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<tr>
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<tr>
<td>Alberto Chaia</td>
<td>McKinsey &amp; Co.</td>
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<tr>
<td>Jonathan Davis</td>
<td>Macquarie Mexico, previously employed at Tesofe and CNBV</td>
</tr>
<tr>
<td>Irene Espinosa</td>
<td>Tesofe</td>
</tr>
<tr>
<td>Hernán Garza</td>
<td>Telecomm</td>
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<tr>
<td>Luis Carlos Gutiérrez</td>
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<tr>
<td>Roberto Isaac</td>
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<td>José María Labarthe</td>
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<td>Ricardo Medina</td>
<td>Banco de México</td>
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<tr>
<td>Ramiro Ornelas</td>
<td>Independent Consultant, previously employed at SEDESOL</td>
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<tr>
<td>Ignacio Rayón</td>
<td>Tesofe</td>
</tr>
<tr>
<td>Gabriela Zapata</td>
<td>Independent Consultant, previously employed at SAGARPA.</td>
</tr>
</tbody>
</table>

2 Ibid., 41.


4 Presidencia de la República (1997), *Acuerdo que establece el Sistema Integral de Administración Financiera Federal*.

5 The working groups were comprised of the top executive team at Tesofe and the administrative teams in charge of the financial and human resources departments at Dependencias. There was a lot of variance in composition among the teams, both in terms of their capacity and in terms of their commitment to this modernization process.

6 An off-the-shelf solution would be an IT platform commonly known as an ERP (enterprise resource planning) system that would need to be adapted to the specific case of government agencies soliciting the funds, getting approval, executing the payment, and reflecting the transaction on the accounts of government. Various such solutions exist today, whereas Tesofe built its own solution from scratch, which took longer, and requires dedicated attention to maintain.

7 Whereas SPEUA is a typical RTGS system, SPEI works like an Automated Clearing House (ACH) in the sense that it enables even small electronic transfers directly between the accounts of banks’ clients. It is relatively uncommon that a central bank itself builds and operates a payment system like this.

8 Secretaría de Hacienda y Crédito Público (2002), *Acuerdo por el que se establecen los lineamientos relativos al funcionamiento, organización y requerimientos de operación del Sistema Integral de Administración Financiera Federal*.


10 The agreement to work on this together was made by the heads of the MoF and Banxico, while the teams comprised for the project involved the top executive teams at Tesofe and the Payments Systems group at Banxico.

11 Article 16-X of the Presupuesto de Egresos de la Federación para el Ejercicio Fiscal 2010.

12 Presidencia de la República (2012), *Decreto que establece las medidas para el uso eficiente, transparente y eficaz de los recursos públicos, y las acciones de disciplina presupuestaria en el ejercicio del gasto público, así como para la modernización de la Administración Pública Federal*.

13 See Annex B Table B3 for a description of the methodology and calculation.

14 As explained in Section II, at the time of writing President Peña Nieto sent to Congress a bill that, if passed, would centralize the payments of all primary and secondary teachers (of public schools) within Tesofe.


16 McKinsey (2009), *Creating Change at Scale through Public-Private Partnerships: Lessons from an innovative financial inclusion partnership in Mexico*.

17 McKinsey (undated), presentation about a project with The Bill & Melinda Gates Foundation to design and pilot a basic financial services offering through a network of 22,000 stores in rural Mexico, provided to author.

18 Banco Azteca has a wide network of branches in places like smaller towns where the larger commercial banks are not present.

19 See Commitment made by the Comision Nacional Bancarias y de Valores (CNBV) Mexico.

20 See CGAP (2012), *Social Cash Transfers and Financial Inclusion: Evidence from Four Countries, Focus Note 77*.


22 EPRI (2011), *Payment arrangements for cash transfers*.


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.

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