



FINANCIAL INFRASTRUCTURE SERIES
PAYMENT SYSTEMS POLICY AND RESEARCH

GENERAL GUIDELINES FOR THE DEVELOPMENT OF GOVERNMENT PAYMENT PROGRAMS

July 2012



THE WORLD BANK

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FOREWORD

The importance of government payments as a key component of the national payments system has been much discussed in recent years. Yet, few reports have been devoted specifically to developing a holistic model for efficient government payments with special attention to the “payment system aspects” of government payments. Understanding these payment system aspects is crucial to understanding government payments and to ensuring that these payments are safe and efficient.

This report provides an analysis of the payment system aspects of government payments, and it sets forth general guidelines designed to help countries develop and improve their government payment programs.

The report has been prepared by the World Bank in consultation with the International Advisory Group for Government Payments (IAG). The IAG includes public-sector institutions from various countries with relevant experience in implementing government payment programs. The IAG also includes representation from certain non-government organizations and payment service providers that are actively involved in developing and implementing various types of government payment solutions in different country environments. Through dialogue and the sharing of various country experiences in implementing such programs, the contributions of IAG members in the drafting process of the general guidelines have been significant, including several specific contributions for the annexes presenting individual country cases.

I would like to thank the Financial Infrastructure Service Line (World Bank’s Financial Inclusion Global Practice) led by Massimo Cirasino, and Hemant Baijal, Jose Antonio Garcia, Rahul Kitchlu, as well as each of the individual members of the IAG for their effort in putting together the general guidelines. Those ideas will support governments, along with the payments community in general, in designing and implementing their government payment programs.

In a second phase, the World Bank and the IAG will work on developing additional material and other contributions to further assist countries with the practical implementation of the general guidelines. Those forthcoming insights are sure to be of great interest to those who monitor this important element of the international economy.

Janamitra Devan
Vice President & Head of Network
Financial and Private Sector Development

ACKNOWLEDGMENTS

This document has been developed by the Financial Infrastructure Service Line of the World Bank's Financial Inclusion Global Practice, in consultation with the International Advisory Group for Government Payments (IAG). The primary authors of the document are Massimo Cirasino (World Bank and Chair of IAG), Hemant Bajjal, Jose Antonio Garcia and Rahul Kitchlu (World Bank and IAG Secretariat).

The document includes ideas and contributions from various members of the IAG, and has been developed over the course of a year with the inaugural IAG technical meeting held in Washington, DC in December 2010. Since then, the IAG met several times to conduct detailed technical review of the document: Rio de Janeiro (March 2011), Rome (June 2011), and Cancun (September 2011).

The IAG Chair and the Secretariat would like to thank the following institutions for their specific contributions to the document: Committee on Payment and Settlement Systems of the Bank for International Settlements, Consultative Group to Assist the Poor, International Monetary Fund, public sector authorities from Azerbaijan, Brazil, Italy, Mexico, the Philippines, South Africa, the Russian Federation, Saudi Arabia, Turkey, and the United States, as well as certain private sector payments organizations, including Citigroup, MasterCard and Visa for case studies and their comments to several draft versions of the report.



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LIST OF ABBREVIATIONS

ACH	Automated clearing house	GDP	Gross domestic product
ATM	Automated teller machine	IAG	International Advisory Group for Government Payments
B2G	Business to government payment	IFMIS	Integrated financial management information system
CCT	Conditional cash transfer	IMF	International Monetary Fund
CoA	Chart of Accounts	P2G	Person to government payment
CPSS	Committee on Payment and Settlement Systems	POS	Point of sale
EBT	Electronic benefit transfer	PSDG	Payment Systems Development Group (World Bank)
EU	European Union	RTGS	Real time gross settlement
G2G	Government to government payment (intra-governmental)	STP	Straight-through processing
G2P	Government to person payment	TSA	Treasury single account
G2B	Government to business payment		

SECTION I

INTRODUCTION AND EXECUTIVE SUMMARY



1. Governments, regardless of their country's stage of economic development, make payments to, and collect payments from individuals and businesses. Financial resources are also transferred between the various government agencies. These flows cover a wide range of economic sectors and activities, and in most cases the overall amount of such flows is significant, for example in terms of the gross domestic product (GDP).

2. Improvements in government payment programs that lead to higher levels of efficiency, safety and transparency can have a significant impact in the economy as a whole. Moreover, due to their scale and nature, government payments programs can also become an effective tool in the pursuit of other public policy objectives, such as the modernization of the national payments system or to promote financial inclusion for certain population segments.

3. Despite the relative importance of government payment programs, there is no systematic set of references to guide governments and other relevant stakeholders in assessing the challenges associated with the effective development and day-to-day operation of these programs. This report aims at filling this gap by presenting a set of comprehensive Guidelines that can assist governments and other stakeholders in developing and operating safe and efficient government payment programs.

4. The General Guidelines have been developed by the World Bank's Payment Systems Development Group (PSDG) in consultation with the International Advisory Group for Government Payments (IAG). The IAG included representation from a variety of country government authorities with relevant experience in implementing government payment programs. It also included representation from certain non-government organizations and several payment service providers that are actively involved in developing and implementing various types of government payment solutions in different country environments.

5. In a second phase, the World Bank and the IAG will work on developing additional material and other contributions to further assist countries with the practical implementation of the General Guidelines.

1.1 KEY CONSIDERATIONS CONCERNING GOVERNMENT PAYMENT PROGRAMS, PUBLIC POLICY GOALS AND THE GENERAL GUIDELINES

6. For the purposes of this report, government payment programs include both government collections/receipts and government payments or disbursements.

7. The World Bank with support from IAG members have defined the following public policy goals with regard to government payment programs: *Payments and collections made as part of existing or new government payment programs should support the sound, efficient and transparent management of public financial resources. Government payment programs should therefore be safe, reliable, and cost-effective. In addition, efforts to modernize government payment programs should be leveraged to accelerate the development of the national payments system more broadly, and to promote financial inclusion.*

8. A total of 10 General Guidelines have been developed taking as a basis for the analysis the experience and evidence related to a variety of government payment program reforms from different parts of the world.¹ Each of the General Guidelines underscores one or more critical aspects associated with the successful modernization and effective day-to-day operation of government payment programs (see Box 1 for a list of the Guidelines and accompanying descriptions).

9. To facilitate the analysis of the various issues and considerations underlying government payment programs, the General Guidelines and the corresponding analysis have been grouped around the following four broad topics: i) governance, safety and efficiency is-

sues associated with operating government payment programs; ii) the legal and regulatory environment supporting these programs; iii) the availability of a payment system infrastructure to process the associated payment transactions; and, iv) leveraging on government payment programs for other developmental objectives.

10. Operators of government payment programs all around the world are concerned that payments made by/to the government are done safely, and that government money is managed transparently and efficiently. General Guidelines 1-4 address those safety, efficiency and transparency issues that, to a reasonable degree, are under the direct control of program operators, which are generally the national treasuries. These set of Guidelines emphasize the following four key aspects: i) ensuring the programs have appropriate governance arrangements and risk management practices; ii) devoting sufficient time and effort to reviewing and streamlining treasury processes, followed by the automation of the revised processes; iii) usage of electronic payments to improve cost-effectiveness, as well as to enhance the potential developmental impact of government payment programs; and iv) having in place mechanisms to promote the continuous development of the programs and to ensure a timely implementation of improvement measures that may have been identified.

11. General Guidelines 5-8 relate to other aspects that can also have an impact on the overall safety and efficiency of government payment programs in any given country. The importance of an appropriate legal and regulatory environment underpinning government payment programs is considered in Guidelines 5 and 6. Guideline 5 addresses those legal and regulatory aspects that are specific to government payment programs, emphasizing the need that the associated laws, regulations and norms provide clarity and certainty to all parties involved. Guideline 6 refers to those legal

¹ Including experience from IAG members and the World Bank's own field work experience.

BOX 1: THE GENERAL GUIDELINES

The General Guidelines aim at the following **public policy goals** for government payment programs: *Payments and collections made as part of existing or new government payment programs should support the sound, efficient and transparent management of public financial resources. Government payment programs should therefore be safe, reliable, and cost-effective. In addition, efforts to modernize government payment programs should be leveraged to accelerate the development of the national payments system more broadly, and to promote financial inclusion.*

A. GOVERNANCE, SAFETY AND EFFICIENCY

Guideline 1. Ensure proper program governance and risk management: *governance arrangements should ensure accountability, transparency, and effectiveness in managing the risks associated with government payment programs.*

Guideline 2. Review and streamline treasury processes, then work on their automation: *the treasury should devote extensive efforts to identifying all relevant needs with regard to improved safety, efficiency and transparency.*

Guideline 3. Take full advantage of electronic payment methods: *the extensive use of electronic payments in government payment programs can reduce costs and improve transparency and traceability.*

Guideline 4. Create appropriate organizational arrangements to foster the continuous development of government payment programs: *the national treasury/ministry of finance should consider engaging in collaborative schemes with the central bank and other stakeholders to identify additional improvement opportunities for these programs and, eventually, facilitate their implementation.*

B. LEGAL AND REGULATORY

Guideline 5. An appropriate legal framework with specific applicability to government payment programs can further underpin their safe and efficient operation: *laws and/or regulations that provide clarity and certainty to the various parties*

involved, and that promote effectiveness and transparency in the execution of programs should be enacted/approved.

Guideline 6. Laws and regulations on payment instruments and systems, competition and consumer protection can also have an important bearing on government payment programs: *the legal basis should support sound and fair practices in the market place, and be flexible enough to accommodate innovations.*

C. PAYMENT SYSTEMS INFRASTRUCTURE

Guideline 7. An appropriate payments infrastructure should be in place: *the potential to obtain substantial benefits from migrating government expenditures and collections to electronic payments relies on there being the required payments infrastructures to process such payments safely, efficiently and at a reasonable cost.*

Guideline 8. Maximize the potential of the available infrastructures through interoperability and widespread usage: *payment service providers being able to channel their payment operations through any of the key mainstream infrastructures promotes efficiency, network expansion, and a level playing field for all players.*

D. COOPERATION AND PARTNERSHIPS TO LEVERAGE GOVERNMENT PAYMENT PROGRAMS

General Guideline 9. Adopt a strategic approach to the development of government payment programs: *the reforming of government payment programs has the potential to trigger the development of a robust payments infrastructure, which in turn will support the safe and efficient processing of government payments.*

General Guideline 10. Leverage on government payment programs to promote financial inclusion: *the large volume of payments issued by governments, as well as the nature of some specific programs like social spending programs, represents an opportunity to promote or facilitate financial inclusion on a large scale.*

and regulatory aspects supporting the soundness of payment instruments and systems, competition in the marketplace and consumer protection issues.

12. Guidelines 7 and 8 highlight the importance of a modern, comprehensive and robust national payments system for government payment programs. Guideline 7 sets out that an appropriate payments infrastructure should be in place so that the full potential of electronic payments for enhanced safety and efficiency may be realized. Guideline 8 on the other hand stresses the importance that such an infrastructure be not only available, but that it be used extensively so that as many payment service providers, taxpayers and recipients of government payments can benefit from it.

13. Guidelines 9 and 10 refer to the potential positive externalities of government payment programs, stressing that authorities can and should take advantage of the same to address broader developmental goals. In this regard, Guideline 9 draws on the experience of many countries where the modernization of government payment programs became an opportunity to undertake a major reform of the national payments system. Finally, Guideline 10 recognizes that government payment programs, given their overall scale and the fact that some programs specifically target population segments that typically lack access to most, if not all, modern financial services, can be leveraged to promote financial inclusion.

1.2 SCOPE OF THE GENERAL GUIDELINES

14. This report focuses on the *processes* associated with the operation of government collections and government disbursements; therefore, issues such as tax policies, tax administration, budget allocations or the criteria for determining the population that is eligible for certain government benefits, among others, are

not discussed herewith and are taken as given.² At the same time, the report refers more broadly to government payment *programs*, recognizing the fact that the execution of the actual payment transaction is only one of the processes involved in the overall operation of government collections and disbursements.

15. Even though not all of the General Guidelines may be equally relevant to all countries in all specific situations, they need to be considered together as a unified set. Although a development initiative may focus on a certain specific aspect, it will need to reflect some awareness of the other aspects and dimensions of government payment programs that may require complementary reform at some future point.

16. While the General Guidelines are intended to have universal applicability, they are not prescriptive; rather, they aim to provide broad-based guidance on the issues that the World Bank considers to be of high relevance for developing safe, efficient and transparent government payment programs.

17. The World Bank therefore believes that the General Guidelines can be used by governments, policy makers and other stakeholders as a reference point when examining the *status quo* of government payment programs in their jurisdictions and the need for reforms, both for improving the safety and efficiency of such programs *per se*, and in order to take advantage of the potential of government payments to facilitate the accomplishment of other public policies or developmental objectives.

² Furthermore, international government payments (e.g. international donations, foreign debt servicing, other cross-border funds transfers, etc.) are not discussed in this report.

1.3 STRUCTURE OF THE REPORT

18. Section 2 provides an overview of government payment programs. First, the key types of government payments are described, followed by a discussion on how these programs work in practice under different scenarios. Then, the key considerations underlying the execution of government payment programs are discussed. Section 3 outlines the General Guidelines and provides a detailed discussion on the key areas for action based on the collective experience of the World Bank and IAG members. Finally, the report includes a set of annexes with detailed country-specific cases and experiences and other relevant analytical and methodological materials, and a glossary of terms used throughout in this report.³

³ Annexes, in particular those presenting specific country cases are not exhaustive. Rather, these annexes present several contributions made for analysis purposes in the overall context of the preparation of the report.

SECTION II

GOVERNMENT PAYMENT PROGRAMS: BRIEF OVERVIEW AND KEY CONSIDERATIONS



2.1 THE IMPORTANCE OF GOVERNMENT PAYMENTS⁴

19. Government payments are important in both developed as well as in developing economies. The relative importance of government payments is naturally correlated to the size and influence of the government in the overall economy, which is usually measured in terms of government expenditures as a share of the GDP, and/or tax collections as a share of the GDP. In the majority of cases such ratios range between 15 percent to about 45 percent of the GDP.

20. The scale of government payments in most countries means that improvements in the way government payments are processed (e.g. posted, disbursed/collected, registered) can have a significant positive impact in the overall economy, as well as significant savings for the government itself as a result of reduced transaction costs.

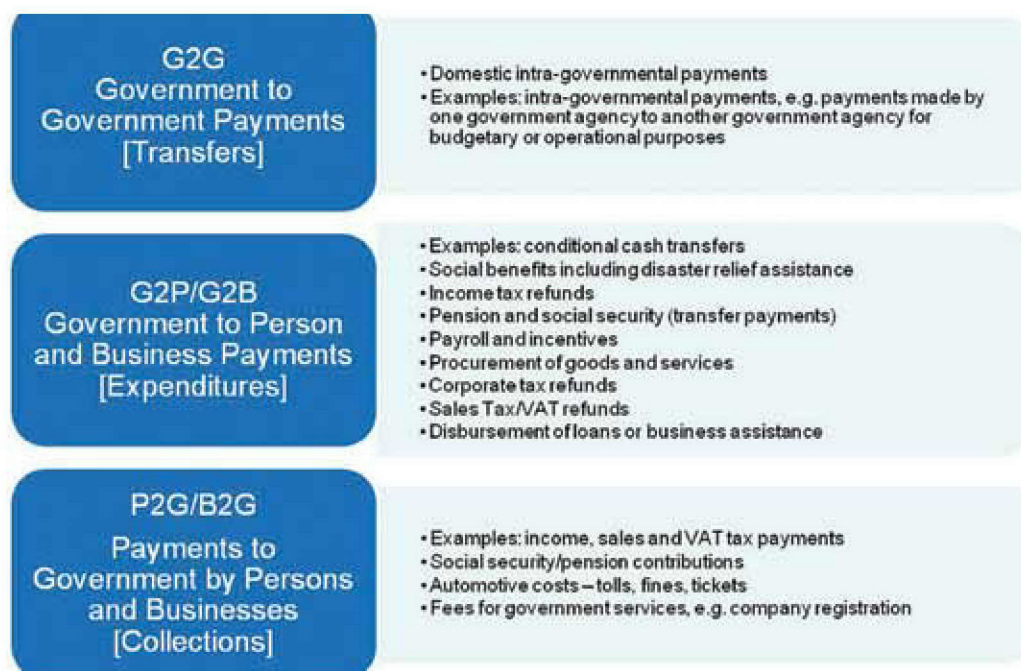
21. When a country's electronic payment systems are widely used for the disbursement/collection of government payments, those government payments typically represent a significant portion of total payment transactions/volumes processed in such systems. A growing

use of the most efficient payment methods and systems is likely to reduce transaction costs not only for the government, the recipients of government payments and taxpayers, but for all users of electronic payment services.

22. Improvements in the way government payments are made also have the potential to induce relevant changes in other areas of the economy. For example, the receipt of electronic pension and/or social benefit payments may be the first introduction to modern payment instruments for an important share of a country's population (namely, the unbanked or under-banked). The successful adoption of such electronic payment instruments may lead to the use of electronic payments in many other commercial transactions. Moreover, a carefully planned reform of government payment programs (or the lack thereof) can have far reaching consequences on the modernization of the national payments system.

⁴ For the purposes of this report, government payment programs refer to both government collections and government disbursements.

FIGURE 1: TYPES OF GOVERNMENT PAYMENTS



Source: Own elaboration.

2.2 MAIN FEATURES OF GOVERNMENT PAYMENTS⁵

2.2.1 Key Types of Government Payments

23. Government payments can be classified under three main types: i) intra-government transfers or government-to-government payments; ii) government expenditures, which consist of payments from the government to persons or to businesses; and, iii) government collections, which are payments made by persons or businesses to the government. This classification is illustrated in Figure 1.

24. Government-to-government (G2G) payments include intra-governmental transfers from one government agency to another for budgetary or extra-budgetary purposes. To a large extent, the day-to-day operations of the government and overall public finance management are based on G2G payments. Compared to other types of government payments, an average G2G payment is normally large in terms of value, while the number of transactions made is relatively small.

25. Government-to-person (G2P) payments are typically associated with social benefits (e.g. incentives or subsidies), social security benefits, government employee salaries, pensions, and tax refunds, among others. G2P payments are normally characterized by a very large number of transactions of relatively small value.

⁵ As specified in the introductory section, this report focuses on the processes associated with government collections and government disbursements. Moreover, the associated payment transaction is identified as only one of the processes involved in the overall operation of government collections and disbursements, for which reason the broader concept of “government payment program” is developed throughout this report.

26. Government-to-business (G2B) payments include payments related to the procurement of goods and services, tax refunds, and disbursement of loans or business assistance. G2B payments are characterized by a large number of transactions. The average value of G2B payments varies widely, ranging from large-value payments associated with large procurement contracts to small-value payments to local businesses for ordinary operational expenses, for example urgent repair costs.

27. Person-to-government (P2G) and business-to-government (B2G) payments include payments made by consumers and businesses to government and/or public sector organizations in the form of tax payments and payments for obtaining services from these agencies (licenses, permits, etc.). Similar to G2P payments, P2G payments tend to be of a small-value nature, and are usually characterized by a very large of number of transactions. Likewise, B2G are a mirror of G2B payments with regard to average size and transactional volumes (i.e. varying size and large number of payments).

2.2.2 Processing of Government Payments

28. In essence, a government's financial planning is not different from that of other economic units. Expenses are planned on the basis of available resources, which stem from the payment of taxes, duties and other receipts, as well as inflows from debt undertakings. This planning function is typically vested in a country's ministry of finance.

29. The ministry of finance assigns a share of the budget to the various government agencies on the basis of an approved economic program, typically on a yearly basis.⁶ Based on confirmed budget availability, govern-

⁶ Budget is usually assigned on the basis of a so-called "fiscal year", which does not necessarily coincide with the calendar year. It should also be noted that initial budget allocations are normally subject to upward or downward adjustments throughout the fiscal year.

ment agencies and other spending units will then start committing and spending the resources assigned to them.

30. Government treasury offices/national treasuries (hereinafter "treasuries") are normally responsible for managing the processes associated with the execution of the payments to/from the government. The way in which the government payments are organized and executed has been evolving over time and varies substantially across countries.⁷

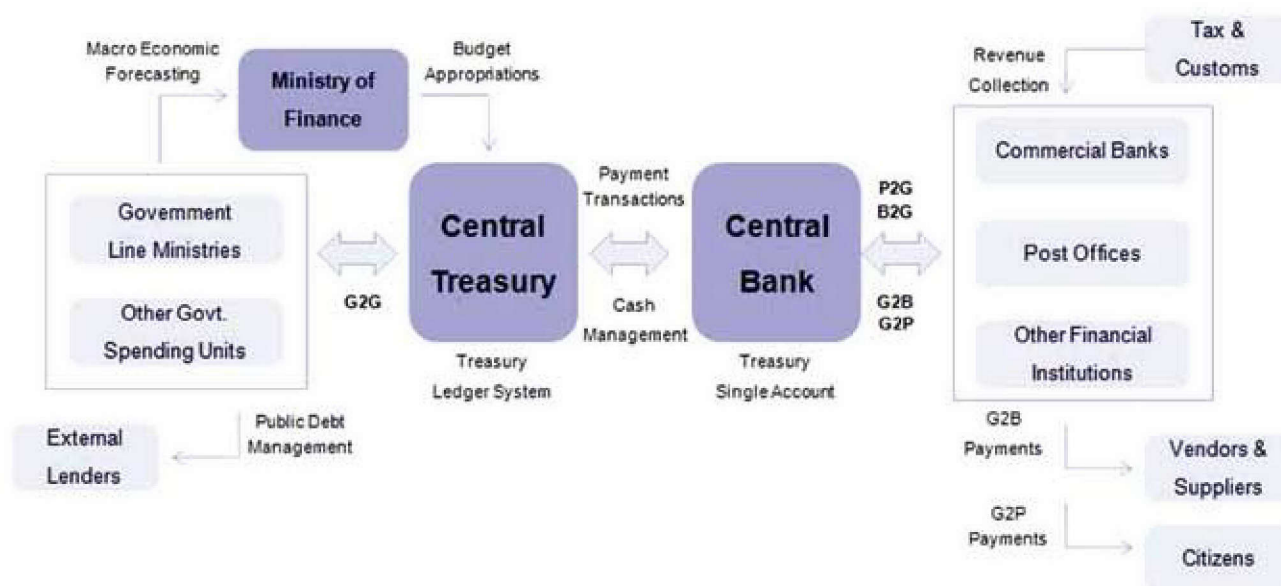
31. With regard to tax collections and other government receipts, in some countries the associated P2G and B2G payments can only be made directly with the tax authority. In others, treasuries have adopted programs by which the commercial bank network and/or other agents can also be used for this purpose. The money collected is normally centralized with the government's financial agent, typically the central bank,⁸ which holds accounts for the treasury and in some cases also for the relevant government agency or agencies responsible for tax collections.

32. On the disbursements side, in some cases the treasury transfers the budget resources allocated to government agencies to accounts at commercial banks.⁹ Government agencies then make a direct request to their commercial bank to make the corresponding cash/money available to the beneficiary. In other cases, although the spending agencies may transact payments directly through commercial banks, the treasury maintains central control of cash, sweeping idle balances from spending agencies' accounts at commer-

⁷ Most national treasuries constantly upgrade their payment programs to deal with emerging needs (e.g. a new program), long-standing needs such as improved controls and higher efficiency, and in some cases also to embrace broader economic objectives.

⁸ In several cases, a state-owned commercial bank or even a private commercial bank fulfils this duty.

⁹ In some countries, government agencies hold accounts directly with the central bank, where they receive the budget resources allocated to them.

FIGURE 2: THE CENTRAL TREASURY MODEL AND THE TSA¹

Source: Own elaboration.

¹ This model assumes that the TSA is held at the central bank.

cial banks and consolidating the government's cash position at the end of each day. Yet in other cases, the treasury controls all financial transactions directly and makes all payments on behalf of the spending agencies.

33. In this last regard, the prevailing trend worldwide is precisely to increase the centralization of the processes related to government payments, consistent with the so-called centralized treasury system model. In some cases the scope of a centralized treasury system is limited to the inflows and outflows directly

related to the national government, while in others it may also comprise one or more levels of sub-national governments (e.g. state, provincial and/or county or city governments).¹⁰

¹⁰ The degree of autonomy given by a country's Constitution and other laws to sub-national governments normally limits the controls that the treasury may exercise over the spending of resources by such government levels. Given the variety of political arrangements on this matter, the issue of whether sub-national governments should be integrated or not into the central treasury system is not discussed in this report.

34. A centralized treasury system rests on two key pillars:

- A bank account where all incoming government funds can be concentrated and from which all payments can be disbursed. This so-called treasury single account (TSA) is normally held at the central bank.
- An information system or systems to provide the treasury with a unified view of the government's cash position at any given moment, as well to provide it with the necessary information to process all payment requests. Systems of this kind are often known as integrated financial management information systems (IFMIS).

35. Through their IFMIS and the TSA, some treasuries have been able to fully automate the processes related to government payments. For example, payment requests made by government spending units are verified, recorded, accounted for and released automatically. A payment order is then automatically posted into a payments system to transfer the corresponding funds to the beneficiary. A typical centralized treasury system in which the TSA is held at the central bank is depicted in Figure 2.¹¹

¹¹ The accounting structure plays a crucial and basic role in designing an IFMIS - and its linkages with payment systems for effective reconciliation and accounts management. A multidimensional and flexible chart of accounts (CoA) accommodates new demands from various stakeholders, whereas a rigid and linear CoA makes it difficult to reform public financial management systems.

2.2.3 Payment Instruments and Systems Used in Government Payment Programs

G2P and G2B payments

36. Traditionally, G2P payments were disbursed through the use of cash, cheques or other paper-based payments. Over the last 10-15 years many governments have developed programs involving the use of electronic payments. In this case, for example a G2P payment may consist of an electronic transfer to a deposit account held at a commercial bank or another financial institution. The beneficiary can then access the funds in that account through an automated teller machine (ATM) card, a debit card or other means. In other cases, the G2P payment consists of a value transfer to a prepaid/stored-value card that works as a virtual account (i.e. a traditional bank account or a credit account to hold the underlying funds or credit is generally not necessary).¹² Those cards can then be used at point-of-sale (POS) terminals.¹³

37. With regard to G2B payments, a large majority of governments use cheques or electronic funds transfers to settle large-value payments. Card products are increasingly being used for low-value business expenses (including supplies expenditures, maintenance and repair costs, and other operational expenses). Card products can be prepaid/stored-value cards (e.g. most gasoline cards) or cards that can be used within a certain spending limit and balances are paid at specified cut-off dates (e.g. corporate travel cards, procurement cards).

¹² A stored-value card is a prepaid card in which the record of funds can be increased as well as decreased. This feature is now common for most types of prepaid cards.

¹³ In some cases, these cards may only be used at some designated merchants or locations. For example, for some types of subsidies and so-called conditional cash transfers the beneficiary may only use the corresponding funds for specific items such as food, sanitary or health services. In other cases, while the government program per se does not restrict the uses of the transferred funds, the number and type of merchants that accept such cards as a means of payment might be limited.

38. In some cases, government procurement processes have been migrated to on-line platforms which, among other features, allow the associated G2B payments to be made electronically, normally through electronic funds transfers to the account of the beneficiary, card-based purchases or both. Perhaps the most significant novelty of this type of solutions strives in that they usually integrate additional payment, data and reporting solutions that reduce the steps required for payment processing and reconciliation, and ease control and audit processes.

39. The actual G2P or G2B funds disbursement is normally made through an interbank payments system which allows money to be moved electronically from the account(s) of the treasury to the account of the beneficiary.¹⁴ If prepaid/stored-value payment products are used, it is actually the account of the issuer of those specific products that is credited by the treasury so that the issuer is able to fund the purchases and/or withdrawals made by the beneficiaries with its payment products.

40. In some cases, interbank payment systems are not used for the disbursement of G2P or G2B payments. The most common example is when the treasury issues cheques or payment orders that can only be cashed directly with the central bank or another banking institution where the government regularly holds its funds.

P2G and B2G payments

41. At the end of the 20th century, it was a common scenario in many countries for taxes, duties and other payments to the government to be paid only in cash at the premises of the agency responsible for tax collections. In most cases, the commercial banking network was not used on a large scale for this purpose until the 1990s. To a large extent this was possible by payment

system and overall technological innovations enabling commercial banks to provide the required services to the government at a reasonable cost and with appropriate service levels (e.g. quick transfer of collections to the TSA).¹⁵

42. The use of commercial banks as collecting agents has prompted the use of modern payment instruments for both P2G and B2G payments. Taxpayers of all kinds now regularly use card payments, electronic credit transfers or electronic debits, among others, to discharge their tax obligations or to pay for a variety of government services. Moreover, in some countries commercial banks have developed additional channels, such as internet banking or mobile phone banking, for their customers to initiate these payments – as well as other types of payments for many other purposes - conveniently.

43. In an increasing number of countries, P2G and B2G can now also be made on-line at the collecting agency's payments gateway. From a payment systems perspective, the payments made through schemes like these actually end up as a regular electronic transfer or card-type payments. Nevertheless, these schemes add value by integrating in a single platform the underlying information that is necessary for the payment to be properly made, with the capability to perform the actual payment transaction, thereby providing taxpayers a convenient (i.e. single-stop) solution to discharge their obligations.

44. Once a commercial bank acting as a collecting agent receives the actual funds, either by debiting accounts of its own customers or after the payments drawn on other banks are cleared and settled through an interbank payments system, it will have to remit

¹⁴ See section 2.3.3 for a detailed discussion on payment infrastructures and interbank payment systems.

¹⁵ In some countries, non-bank agents are also used as government collecting agents, especially in isolated communities. Typical non-bank collecting agents are therefore those with extensive physical networks such as the Post Office and some convenience stores. For the most part these agents only accept payments in cash.

BOX 2: THE 2010 WORLD BANK GLOBAL PAYMENT SYSTEMS SURVEY

In 2010, the World Bank's PSDG launched a new version of its global payment systems survey. Nearly 130 countries responded the specific section on government payments. Aggregate results on the payment method(s) used for the various types of government payments are shown below. The complete outcomes of the Global Survey are available at: www.worldbank.org/paymentsystems.

Type of Payment	Cash	Paper-based	Electronic
Government to Person (G2P)			
Public sector salaries	11%	24%	76%
Pensions and transfer payments	14%	26%	67%
Cash transfers and social benefits	22%	31%	52%
G2P averages	16%	27%	65%
Person to Government (P2G)			
Taxes	40%	48%	44%
Utility payments	55%	33%	42%
Payment for services, etc.	54%	35%	34%
P2G averages	50%	39%	40%
Government to Business (G2B)			
Procurement of goods and services	2%	50%	61%
Tax refunds	2%	49%	50%
G2B averages	2%	49%	56%
Business to Government (B2G)			
Taxes	11%	58%	57%
Utilities	16%	53%	50%
Benefits transfers	9%	52%	46%
B2G averages	12%	55%	51%
Global averages	20%	42%	53%

Note: Results do not add-up to 100% as more than one payment instrument could be indicated for each type of government payment.

such funds to the government's financial agent. The latter transaction is also performed through an interbank payments system.

45. Box 2 shows the main outcomes with regard to the broad type of payment method used, of a recent World Bank survey that covered government payments as one of the elements of the overall national payments system.

46. The World Bank survey showed that, at the global level, among the various types of government payments G2P payments had the highest rate of use of electronic payment methods. In particular, payment of salaries to public sector employees included electronic payment methods in over 75 percent of the responding countries. The corresponding figure for pensions and social benefit was 67 percent and 52 percent, respectively. Conversely, P2G had the lowest rate of use of electronic payment methods. With regard to G2B and B2G payments, while cash is seldom used, cheques and other paper-based payments are still used in about half of all responding countries. Many of the responding countries reported on-going efforts to adopt electronic payment methods.

2.3 KEY ISSUES CONCERNING GOVERNMENT PAYMENT PROGRAMS

47. The key considerations concerning government payment programs can be broadly grouped around the following topics:

- i) Safety, efficiency and transparency considerations associated to the operation of government payment programs;
- ii) The legal and regulatory environment supporting these programs;
- iii) Payment system infrastructure issues; and,

- iv) Cooperation and partnerships to leverage the impact of these programs.

2.3.1 Governance, Safety and Efficiency

48. A key concern for treasuries all around the world is that payments made by/to the government be done safely, meaning that there is a high degree of certainty that the right individual/firm is being paid – or that the individual/firm making a payment to the government is properly recognized to credit his payment correctly-, that the amount intended to be paid is the one that is actually paid and received, and that the corresponding funds are received and properly recorded on a timely manner.

49. Treasuries also wish to ensure that all government money is efficiently managed so as to ensure the smooth flow of government operations. Moreover, governments are concerned that such objectives be achieved at the lowest possible cost in order to maximize the net impact of government spending programs.

50. The inability to guarantee proper safety and integrity for the various payment programs is likely to result in a lack of trust in governments from taxpayers and recipients/beneficiaries. Apart from public criticism and eventually costly litigation, in the extreme such distrust may result in lower revenue levels, and/or governments being unable to demonstrate convincingly the impact of their spending programs.

51. In addition, the inefficient handling of government payment programs typically results in idle cash balances, delays in the disbursement of payments and other transfers to beneficiaries, disruptions in government operations, short-term indebtedness to cover unexpected funding needs, or unjustified personnel and other overhead expenses.

BOX 3: THE TREASURY SINGLE ACCOUNT

A treasury single account (TSA) is either a single bank account or a set of linked accounts through which the government transacts all its receipts and payments. This unified structure also allows the government to have a consolidated view of its available cash resources.

The TSA is based on the principle of unity of cash and the unity of the treasury. The principle of unity follows from the fungible nature of all cash, irrespective of its end use. While it is necessary to distinguish individual cash transactions for control and reporting purposes, this purpose is achieved through the accounting system and not by holding/depositing such cash transactions in specific bank accounts. This enables the treasury to delink management of cash from control at a transaction level.

The primary objective of a TSA is to ensure effective aggregate control over government cash balances. However, there are other important benefits. The TSA can significantly reduce transaction costs by improving the ability of the government to control the delay in the remittance of government revenues by collecting agents. Transaction costs are also reduced by disbursing payments from a single account. Moreover, the TSA facilitates reconciliation between banking and accounting data and is a useful tool for the implementation of the monetary policy and for macro-economic forecasting.

The real impact of the TSA will depend to a large extent on its coverage. Therefore, it is highly desirable that the TSA covers all central government entities and their transactions, including autonomous government entities, accounts managed by social security funds and other trust funds, extra-budgetary funds, and loans from the multilateral institutions and donor aid resources, among others. In some cases, the TSA has also been extended to include sub-national levels of government.

The feasibility of implementing a TSA also depends on the availability of appropriate payment systems to enable a timely consolidation of cash balances, as well as the efficient, flexible and safe disbursement of the resources held at the TSA.

Source: Own elaboration based on several IAG member contributions.

52. To some extent these problems derive from treasuries not having proper systems in place to enforce internal control measures and/or systems to handle the information associated with financial inflows, outflows and their interrelations in an integrated and efficient manner so as to facilitate robust decision-making. Moreover, the dispersal of government funds in multiple bank accounts is costly and complicates controls and effective reporting.

53. A centralized treasury system based on robust financial management systems (e.g. an IFMIS) and a

TSA is therefore widely considered a pillar in improving the safety and efficiency of government payment programs. Such a system has proved highly beneficial for managing public monies, including greater financial control, improved cash management,¹⁶ lower transaction costs, and increased transparency and accountability. At a higher level, a well-functioning centralized treasury system also facilitates fiscal and mon-

¹⁶ Through effective, centralized cash management, governments are better able to determine their real short-term financing needs, thereby reducing unnecessary borrowing.

TABLE 1: ADVANTAGES AND DISADVANTAGES OF THE VARIOUS FORMS OF PAYMENT

Instrument	Payee		Payer	
	Advantages	Disadvantages	Advantages	Disadvantages
Cash	-Instant liquidity	-Handling costs and risk of loss -Safekeeping costs -Difficult to maintain audit trails	-Wide acceptance	-Handling costs and risk of loss -Difficult to track usage
Cheques		-Funds not guaranteed* -Clearing time required (often 1 day or more) -Costly to handle -Highly susceptible to fraud	-Convenient in certain special circumstances (e.g. relative to cash for larger transactions)	-Might have limited acceptance -Susceptible to fraud
Payment cards	-Funds guaranteed if based on on-line authorization, which enables the sale or transaction to be completed immediately -Easier reconciliation and reporting -Dispute resolution process is well-defined	-Costs charged by card transaction acquirers might be high -Fraud and security risks can exist if adequate controls are not in place	-Wide acceptance and convenient to use -Easier reconciliation and reporting -Easy to track usage -Suitable for both face-to-face and online payments, as well as for one-time and recurring payments -Value added features might be included by issuers as part of product packaging	-Certain usage patterns can lead to high fees -Could lead to over-spending if use is not well controlled (for credit cards) -Potential fraud and security concerns**
Electronic debit transfers	-Can control initiation -Suitable for recurrent payments -Suitable for on-line payments under some arrangements (authenticated and pre-approved debit transfers) -Low processing costs -Easy to reconcile (if bank provides details)	-Clearing time required (often 1 day or more)	-Suitable for recurrent fixed-and variable amount payments*** -Low processing costs	-Often require pre-registration of the payee, making it unwieldy for unplanned and online purchases
Electronic credit transfers	-Suitable for recurring payments -Low processing costs -Easy to reconcile if banking partner provides payer details	-Clearing time required (often 1 day or more) -Cannot control initiation	-Can control initiation -Suitable for varying amount recurring or one-off payments -Audit trails and reconciliation is easy -Low processing costs -Several channels available to initiate the payment, like Internet, ATM, mobile phone	
Prepaid and other innovative payment products	-Funds guaranteed (prepaid), enabling completion of sale/transaction right away -Reconciliation is easy -Processing costs can be low	-Fraud and security risks can exist if adequate controls are not in place	-Convenient to use -Easy to track usage	-Limited acceptance -Fraud and security concerns -Risk of losing pre-funded amount if operator goes bankrupt -Risks related to weaknesses in new technologies

Source: Adapted from World Bank, "Developing a Comprehensive National Retail Payments Strategy", 2012.

Notes: * Except for some special arrangements where the availability of funds is verified - and usually those funds are then blocked - in advance of accepting the cheque as a valid payment.

** These potential risks are normally managed actively by the payment networks and card issuers.

*** In the case of variable amount payments, as long as the payer is able to reverse the payment if at a later stage he/she decides that the amount of the underlying bill is incorrect.

etary policy coordination. Box 3 describes the main features of a modern TSA.¹⁷

54. A well-functioning centralized treasury system also serves the government's objective of improved transparency for the overall fiscal management system. For example, an integrated system of this kind would naturally rely on a consistent set of accounting rules, and therefore is more likely to yield effective and reliable reports on the overall financial situation of the government, both on the revenue as well as the spending side.

55. The safety and efficiency of government payment programs depends importantly on that the payment instruments and means used allow for the prompt, safe, convenient and cost-effective transfer of financial value from/to the government. Table 1 depicts the general features or characteristics of the most commonly used forms of payment from both the side of the payer and that of the payee. These features may vary from country to country, especially with regard to costs. Moreover, some instruments may not be widely available or widely accepted, for example due to the lack of the necessary infrastructure to process the underlying payment instruments, like POS terminals.

56. As shown in Table 1, cash and cheques - and other paper-based payment methods - though convenient in some special circumstances, lack most of the features or characteristics that are desirable from a safety and efficiency perspective. For example, due to the intensive manual procedures involved in their handling, such instruments entail larger overhead expenses at the treasury and significant operational risks. Moreover, they are highly susceptible to fraud and leakages due to the difficulties for appropriate payment reconciliation.

57. The use of electronic forms of payments, on the other hand, offers inherent advantages to all stakehold-

ers involved in the government payments value chain. For governments, their use is likely to result in lower transaction costs and lower overall overhead expenses, reduced internal fraud and leakage, and improved transparency and accountability, among others. Benefits can also be relevant for recipients of government payments as well as for taxpayers.

58. The development and implementation of some electronic forms of payment for government payments can be costly in contexts where the underlying payment instruments and/or infrastructure are poorly developed. Apart from high start-up costs, this is likely to hinder the efficient processing of electronic payments or achieving wide acceptance of the associated payment instruments. Sections 2.3.3 and 2.3.4 of this report respectively describe in further detail the importance of developing an appropriate payment system infrastructure and how the modernization of government payment programs can be used to accelerate the development of such infrastructure.

59. It should also be noted that the development of one-off solutions or highly specific/particular payment products characterized by limited functionality can be costly over time and render little added benefits to the users of such products. This is regardless of whether a national payments infrastructure is in place, as very specific payment products will normally require deploying a special payments infrastructure.

2.3.2 Legal and Regulatory Environment

60. With regard to government payment programs, the adequacy of the legal and regulatory framework comprises two main areas: i) the operational and institutional framework directly associated with or supporting government payment programs; and, ii) laws, regulations and other norms supporting payment instruments and systems, including competition and consumer protection issues.

¹⁷ Annex B also contains a set of country cases on the implementation, upgrade and operation of a TSA.

61. There is no consensus on what constitutes an adequate legal and regulatory framework for the various types of government payment programs. For example, some countries have developed a very specific and detailed framework to handle government payments and collections. In others, there is a general lack of established rules and guidelines, for example on how to disburse/collect funds from/to persons and businesses through the use of commercial banks and other non-bank financial entities. Yet in other cases, although a complex set of rules and guidelines may in fact exist, the overall framework might not be an integrated one, meaning, for example, that some of the existing rules may actually be in conflict with others.

62. In most financial management activities, and more generally whenever money flows are involved, legal risks tend to be greater where there is an absence of specific laws and/or regulations. This is especially true in the case of government payment programs, because of their public sector nature. For example, absence of a sound guiding framework, or its inadequateness thereof, may result in an unnecessary multiplicity or lack of standardization of collection/payment methods, inadequate transparency on the way government payment programs are executed, or even legal liability for public officers and/or their institutions for executing payment programs in such a way that is not properly supported in laws and/or regulations.

63. On the institutional side, it is of outmost importance that there be a proper legal and regulatory framework that promotes the effective operation of the public financial management system. To a large extent this would include clarifying the respective roles of the national treasury, the ministry of finance, the central bank and/or other government agencies which are involved in the execution of government expenditures and collections, and making sure that all these entities are properly empowered to undertake such roles.

64. Given its importance for the efficient execution of government payment programs, specific legislation or regulation may be needed to ensure that the scope of the TSA is wide enough so as to ensure its effectiveness. For example, it is desirable that the boundaries of the TSA (i.e. defining the types of government accounts and other cash resources to be consolidated in the TSA) be established in a law or other high-level regulation to avoid conflicts or ambiguities, especially when it comes to special cases for inclusion/exclusion such as extra-budgetary funds, pensions funds, loans from donors, or the accounts held by autonomous government agencies. Likewise, a specific legal framework might be needed to ensure the proper implementation of other critical accounting and budgeting applications such as an IFMIS.

65. As with other economic activities, there is the risk that the legal framework for government payment programs may be too restrictive, hindering innovation and potential efficiency and other gains. For example, some laws or regulations may require that only certain payment instruments be used for certain programs or for transactions below or above a certain threshold. In other cases, the law may require that all collections/payments be made directly with a specific government agency, no intermediaries involved, thereby hampering the possibilities for a smooth and effective integration of the corresponding programs with the national payments system.

66. With regard to payment systems and payment instruments, an inadequate legal and regulatory framework might constrain their safety and efficiency, or if too restrictive might hinder further innovations, including those intended specifically for government payment programs. It is therefore of critical importance that the legal framework supporting payment systems, payment service providers and the associated payments and instruments used be well-founded,

comprehensive and at the same time flexible enough to keep abreast of innovation and evolution.¹⁸

67. A comprehensive legal framework for payment systems and payment instruments should include the following issues: i) recognize electronic payments as valid means of payments, as well as the recognition of digital signatures and digital records associated with such payment instruments; ii) address the exchange of payment instructions, settlement finality and irrevocability, validity of netting schemes, and the enforceability of security interests provided under collateral arrangements, among others; iii) include the rules, standards and procedures agreed to by the participants of the various payment systems;¹⁹ iv) identify the role of the central bank (and eventually other authorities as well) as overseer of the national payments systems, as well as any other roles it may play such as operator and/or liquidity provider; and, v) include other pieces of legislation covering broader aspects such as consumer protection, privacy issues, anti-money laundering provisions or antitrust legislation to deal with anti-competitive practices.

68. An adequate level of competition between the various types of institutions providing payment services is critical for the overall efficiency of the payments market, and is also an important element to foster continuous innovation. Some of the most relevant barriers to competition in the payments market include laws or regulations that limit the provision of some or all payment services to financial institutions—or even solely to commercial banks²⁰ —, the presence of exclusivity agreements (e.g. an agent being forced by a payment service provider

to work only with it), and laws, regulations or market practices that hinder non-bank payment service providers from being able to process their payment operations with ease at an affordable cost.²¹

69. It should be noted also that in several countries the modernization of government payment programs has been a key element in expediting the issuance of some of the relevant laws and/or regulations supporting payment systems and payment instruments. For example, bearing responsibility for the proper execution of their payment programs, national treasuries and/or tax collecting agencies, among others, are likely to opt not for relying solely on contract law to underpin their operations, and instead promote the enactment of laws and regulations covering aspects such as the recognition of electronic payments as valid means to discharge obligations.

2.3.3 Payment System Infrastructure

70. As previously discussed, the adoption of electronic means of payment can have important benefits in terms of both efficiency and safety for the government, recipients of government payments, taxpayers and other parties alike. However, the degree to which such benefits are likely to materialize in practice will depend on the availability of a sufficient variety of payment instruments to deal with specific needs, and the existence of sound payment systems to process the associated payments safely and efficiently.

71. The core infrastructures in a national payments system refer to its transaction, clearing and settlement arrangements. These infrastructures consist of service providers, network facilities, information and computer technologies, operating procedures and rules. Box 4 summarizes the main payment infrastructure services

¹⁸ Some relevant examples of flexibility of the legal framework to accommodate innovation are the European Union (EU) Directives on E-Money (2009/110/EC) and on Payment Services (2007/64/EC).

¹⁹ Often, rules and procedures require the approval of the regulator and/or overseer.

²⁰ This is normally associated with payment services being regarded as a retail banking service.

²¹ In this last regard, section 2.3.3 presents a detailed discussion of payment system infrastructure access issues, including the advantages and disadvantages of the various access forms, namely direct and indirect access.

BOX 4: PAYMENT INFRASTRUCTURE SERVICES

Transaction infrastructure provides services to create, validate and transmit payment instructions by:

- authenticating the identity of the parties involved in the transaction, sometimes using encryption technologies;
- validating the payment instrument against system standards;
- verifying the payer's ability to pay;
- authorizing the transfer of funds between the payee's and the payer's financial institutions;
- recording and processing payment information; and
- communicating the information between the institutions.

Clearing infrastructure provides services to transmit, reconcile and in some cases confirm payment instructions between financial institutions and calculate interbank settlement positions by:

- sorting and matching payment instructions between institutions;
- collecting, processing and aggregating payment data for each institution;
- storing payment data reports and transmitting them to each institution; and
- calculating gross or net settlement positions (payables or receivables) for each institution.

Settlement infrastructure provides interbank funds transfer services by:

- collecting and checking the integrity of settlement claims;
- verifying the availability of funds for settlement in the participating institutions' accounts at the settlement bank;
- settling claims through funds transfers on these accounts at the settlement bank; and,
- recording settlement and communicating it to the participating institutions.

as identified in the “General Guidance for National Payment System Development” report of the Committee on Payment and Settlement Systems of the Bank for International Settlements.

72. A modern interbank payments infrastructure typically includes a real-time gross settlement (RTGS) system, one or more automated clearinghouses (ACH) to process different types of electronic payments such as electronic credit transfers and direct debits or payments initiated with credit cards and debit cards, among others, and a sufficiently large and geographically dispersed network of access and delivery channels such as point-of-sale terminals (POS), physical branches or

internet access. Moreover, to a large extent the proper operation and effectiveness of these systems and access and delivery channels will depend on the existence of a robust telecommunications infrastructure, and on banks and other payment service providers having in place appropriate systems of their own to process payment orders internally in an efficient manner.

73. Government payment programs will normally require the use of multiple payment products and systems. For example, recurrent G2P, G2B, P2G or B2G payments made on fixed dates are normally effected through bulk payment systems such as an ACH. A RTGS system, on the other hand, is used to satisfy oth-

er requirements, such as executing time-critical, large-value payments,²² including most G2G payments. In addition, in order to reduce float and manage its cash holdings effectively, the national treasury will generally require commercial banks and other collecting agents to remit their collections to a central account or the TSA on a same-day basis, or even at multiple times during the business day.

74. The development of modern payment services requires significant upfront investments by banks and other payment service providers. Required investments include acquisition of software licenses, acquisition/leasing of hardware and of special premises for system development as well as for primary and back-up system operations, and hiring specialized staff, among others. One of the key factors determining an investment of this kind is the intensity with which the intended new services are expected to be used. The required scale might not be reached for a variety of reasons, including: i) the required payment systems and other infrastructure not being in place; ii) limited interoperability of the existing payment systems due to lack of technical and operational standards or because of business decisions that favor proprietary systems; iii) some or most of the largest participants not making use of the existing infrastructure, which may render its use too costly; and, iv) various types of anti-competitive practices; v) lack of awareness or trust on the side of consumers.²³

²² In some countries (e.g. Czech Republic, Mexico, Turkey, and Ukraine, to name just a few), RTGS systems are increasingly handling bulk payments.

²³ When situations like these are observed, the market for payment services in a country will tend to remain under-developed, characterized by high transaction costs, low penetration of the existing services and lack of innovation. International experience shows that a strong involvement of the central bank in its role as catalyst for change in the national payments system is normally required to modify the status quo. Extensive literature exists on central bank involvement in payment systems, including its role as overseer and catalyst for change. Relevant documents can be found at the websites of the Committee on Payment and Settlement Systems of the Bank for International Settlements (www.bis.org), the World Bank's Payment Systems Development Group (www.worldbank.org/paymentsystems), and of many other central banks.

75. In payment systems, interoperability can exist at various levels. In some cases, the payments schemes' associated infrastructure deployed to support the processing of a given payment instrument (e.g. a payment card) can only be used by the customers of certain payment service providers issuing that same payment instrument. This can be referred to as lack of cross-scheme interoperability, a situation that hinders competition and efficiency by impeding the lowering of processing costs and by fostering duplication of infrastructure. While lack of cross-scheme interoperability is usually associated with some payment card systems, it can also be observed for other payment products. For example, two or more ACHs for electronic credit transfers providing the same or very similar services, which can only be offered to their respective participants.

76. There is also the case of interoperability at the infrastructure level, whereby the same basic payments infrastructure can be used to support multiple payment mechanisms. This is especially relevant for innovative payment products since without some basic interoperability with more traditional payment instruments and systems, their acceptance and/or usefulness for consumers might be very limited.²⁴ For example, mobile money services provided by a telecom company could be increasingly convenient if the associated e-money funds could be transferred seamlessly to bank accounts of individuals and vice versa.²⁵

²⁴ The interoperability of most innovative payment solutions with core or main-stream payment infrastructures is still minimal. According to the World Bank's Global Payment Systems Survey 2010, 61 percent of the innovative products/product groups reported was proprietary with no interoperability, and only 30 percent had some form of linkage with traditional retail payment instruments and systems.

²⁵ Mobile money is basically an e-money product where the record of funds is stored on the mobile phone or a central computer system and which can be draw-down through specific payment instructions to be issued from the bearers' mobile phone. Mobile money services typically rely on a network of small retailers – so-called agents or correspondents – for providing the actual service to the customer, such as cash in and cash out services.

77. Limited or null interoperability is likely to result in each payment service provider creating its own payment processing mechanisms and in many cases having to enter into specific business tie-ups, which, apart from hampering overall efficiency, generally limit the benefits of using such instruments.²⁶

78. Being able to make use of the domestic payments infrastructure at a reasonable cost and within appropriate service levels is an important element underlying a competitive payments market. Access to this infrastructure can be either direct (i.e. the ability to post payment orders directly into the system) or indirect (i.e. access through a direct participant). Both forms of access are capable of rendering suitable payment services. For example, since direct access to a payments system normally requires the fulfilment of a set of risk-based criteria which entail substantial investments,²⁷ for some payment service providers, direct access might be overly expensive and/or complex, and hence indirect access may be a better option for using that payments system.

79. It should be noted, however, that non-bank payment service providers may face obstacles to adequate indirect access to the payment infrastructure. A bank having direct access to the system may attempt to block its competitors in the payments market by charging them overly high fees/charges, or otherwise setting unduly restrictive conditions on the service. In other cases, know-your-customer and the like regulations—or their interpretation thereof—may raise concerns for banks about potential legal or reputational risks as a result of providing payment services to certain types of entities, and may therefore decide it is preferable to deny those services.

²⁶ Limited or null interoperability can in itself become a business case impediment for some of these products.

²⁷ The system operator which sets down the access criteria is normally interested in avoiding that any given participant introduces unnecessary risks to the system.

2.3.4 Cooperation and Partnerships to Leverage the Impact of Government Payment Programs

80. The scale of government payment programs in most countries provides an opportunity to, through those same programs, promote or facilitate economic or developmental objectives other than the safe and efficient transfer of funds to/from the government.

81. Taking a strategic approach to the development of effective government payment programs is an effective means to leverage the potential positive externalities to a maximum. The associated strategic plan should involve all the key stakeholders in the government payments value chain.

82. As mentioned earlier, the safety, efficiency and transparency of government payment programs depend to an important extent on there being an appropriate payment system infrastructure in the country. In some cases, one or more relevant components of a modern payments infrastructure might not have been implemented solely because the number of transactions expected to flow through the new system is insufficient to justify investment as well as on-going operational costs. The channeling of a large share of government payments may be a key opportunity to overcome this limitation, and it may trigger the development of a robust payments infrastructure which in turn will support the safe and efficient processing of government payments.²⁸

83. An important public policy goal for many governments at present is to increase and improve financial inclusion of population segments that remain unbanked or otherwise underserved in terms of their ac-

²⁸ Moreover, as previously discussed in section 2.3.2, government payment programs can also accelerate the preparation and subsequent enacting of key pieces of legislation to support the effective functioning of modern payment instruments and systems.

cess to modern financial products.²⁹ Payment services are the most basic component of financial inclusion. Beyond the benefits of having access to modern payment services *per se*, building a good record with the payment service provider may become the gateway to other products (such as deposits, credit or insurance, among others) offered by financial institutions and other formal service providers.³⁰

84. Experience in several countries shows that government payment programs can be an effective tool to improve financial inclusion. Even if financial inclusion *per se* is being incorporated only recently as an explicit objective underlying the modernization of government payment programs, the migration of many such programs to electronic payments over the past few years has already enabled a significant number of people to have some form of access to modern payment instruments and services.³¹ Nevertheless, the opportunity for change is enormous as large segments of the population still remain unbanked or critically underserved, especially - but not exclusively - in developing countries.³²

²⁹ For the purposes of this report financial inclusion is defined as the availability of basic financial products to meet the payment, savings, credit, insurance and investment needs of underrepresented segments of society, at a reasonable cost and in a transparent manner.

³⁰ In many countries, un-banked individuals do have access to some forms of deposits, credit or even insurance; however, these product offerings are normally very costly, often unreliable, and lack most of the consumer protection measures that are standard for financial products offered by licensed or registered institutions.

³¹ Annex C contains several country examples of successful adoption of electronic payments as part of government payment program modernization. In some cases, these also resulted in improved access to some of the basic financial services. Annex E shows a country example (i.e. South Africa) in which improving financial inclusion was one of the explicit objectives of modernizing the government's payment program through the adoption of appropriate electronic payment methods.

³² For example, the Consultative Group to Assist the Poor (CGAP) estimates that approximately 170 million people around the world receive regular payments from their governments. However, less than 25 percent of this population receives such payments via a bank account or through non-cash payment instruments issued by banks or other financial institutions. For more information see the CGAP-DFID December 2009 Focus Note "Banking the Poor via G2P Payments" (available at CGAP's website: <http://www.cgap.org>).

85. Even in cases where adequate access to electronic payments has been made possible, individuals and even some business organizations may be reluctant to use them and prefer cash instead. This is normally associated with the costs associated with using the underlying account, concerns about the safety of electronic payments, a lack of trust in banking and/or other financial sector institutions, insufficient awareness about the advantages and convenience of using electronic payments or simply due to the normal difficulties in adapting to technological change. The involvement of a trusted partner (e.g., the government) in initiating the use of electronic payments might be an effective means to overcome such situations. Indeed, through financial literacy programs, incentive programs and other similar efforts, effective consumer-adoption measures have been adopted in the context of government payment programs.

86. Central banks are also concerned that modern payment instruments be adopted as widely as possible in order to increase the overall efficiency of the national payments system. An increasing number of central banks are therefore expanding their oversight functions over retail payment instruments and systems in order to cover aspects that may represent a barrier for their adequate functioning, including but not limited to cost-related issues and/or other restrictions that impair consumers to use such payments instruments effectively for their various payment needs.³³

87. It should be noted that even though the policies described in the two preceding paragraphs might focus on certain segments of the population like the unbanked or underserved as beneficiaries of government payment program reform, it is highly likely that the

³³ According to the World Bank's Global Payments Survey 2010, 64 percent of the central banks surveyed responded that their oversight powers extended to all payment systems operational in their jurisdiction. The World Bank also carried out a survey of this kind in 2007-2008. At that time this same indicator was 57 percent. The outcomes of both surveys are available at: www.worldbank.org/paymentsystems.

real impact of such policies will be much broader. For example, current users of electronic payment instruments will certainly benefit from increased competition and innovation, improvements in the infrastructure or the adoption of adequate consumer protection measures.

SECTION III

THE GENERAL GUIDELINES



3.1 PUBLIC POLICY GOALS

88. The General Guidelines have been developed on the basis of a set of public policy goals defined by the World Bank with support from IAG members for the development of government payment programs. These public policy goals are described in Box 5.

3.2 THE GENERAL GUIDELINES

3.2.1 Governance, Safety and Efficiency

Guideline 1. Ensure proper program governance and risk management: *governance arrangements should ensure accountability, transparency, and effectiveness in managing the risks associated with government payment programs.*

89. Good governance and appropriate transparency practices promote accountability. This not only makes government payment programs safer and more efficient, but is also likely to increase trust and acceptance of the program by the general public. The IMF Code of Good Practices for Fiscal Transparency, summarized in Box 6, provides some relevant references for developing a proper governance and transparency framework for government treasury operations.

90. Proper governance and adequate transparency can be promoted by reducing the space for discretionary decision by the various spending agencies and the treasury itself. To a large extent this may be accomplished by automating the corresponding verification/validation processes in a treasury's integrated financial management information system (IFMIS) and/or other relevant systems.

91. In some cases, full automation of decisions might not be possible (e.g. the case of complex procurement procedures). In such cases, proper internal controls should be in place for separating duties among key functions of procurement including purchase request, purchase authorization, authorization of disbursement, certifying, reviewing, reporting and auditing, among others.

92. Other major risks faced in the execution of government payment programs include, but are not limited to, the risk of making improper payments, operational risk, liquidity risk and legal risk. The treasury, together with other relevant stakeholders, should identify and monitor all relevant detailed risk sources on a continuous basis.

BOX 5: PUBLIC POLICY GOALS FOR GOVERNMENT PAYMENT PROGRAMS

- Payments and collections made as part of existing or new government payment programs should support the sound, efficient and transparent management of public financial resources. Government payment programs should therefore be safe, reliable, and cost-effective.
- The modernization of government payment programs should be used as an opportunity to accelerate the development of the national payments system.
- Taking advantage of their nature and aggregate magnitude, government payment programs should be leveraged wherever possible to promote the fulfillment of other developmental goals. In particular, as an ancillary objective, government payment programs should promote financial inclusion by providing the financially underserved segments of the population with access to modern payment instruments and services.

93. Reducing improper payments issued to the public is a key objective for governments and their treasuries.³⁴ One of the major components of improper payments is eligibility risk, which can be defined as the risk that a recipient of a government payment is actually ineligible to such a payment. The treasury should have streamlined access to relevant databases when evaluating eligibility. Moreover, as manual meth-

³⁴ In general terms, improper payments occur when the funds go to the wrong recipient (either because the recipient was ineligible, or the actual recipient was not the intended recipient), the recipient receives the wrong amount (overpayment or underpayment), documentation is not available to support a payment, or the recipient uses the funds in an inappropriate manner. Annex D presents some practical cases of managing the risk of making improper payments, fraud and misuse.

ods for determining eligibility are prone to error and fraud, the treasury should aim at automating the entitlement process through a so-called rules-based entitlement engine that calculates the values and due dates of recipient payments automatically, based on program rules.

94. Some of the most relevant examples of operational risks include unintentional human errors, the malfunctioning of information technology equipment or other pieces of infrastructure, and data security and safety issues.

95. Streamlining and automation of processes is perhaps the best method to reduce the scope for human error. Automation should aim at significantly reducing or even eliminating manual intervention. Thus, in the case of government payment programs, automation should also include interfaces with the relevant payment system(s).³⁵

96. In most countries, the continuity of government payment programs, and more generally of treasury operations, is critical for the economy. The treasury should therefore have proper business continuity measures in place to ensure the continuity of its operations in case of natural disasters or man-made events.³⁶ It should be noted that a comprehensive business continuity plan goes beyond the availability of redundant hardware or other pieces of infrastructure, and needs to consider human factors (e.g. avoiding situations whereby a severe interruption of the service materializes due to people not being able to react promptly or effectively) as well as the role of other relevant stakeholders such as key service providers.

³⁵ Additional details on process automation are discussed under Guideline 2.

³⁶ If the Treasury is not the operator of the government payments platform, then proper business continuity arrangements should be developed by the relevant agency operating this platform.

BOX 6: THE IMF CODE OF GOOD PRACTICES ON FISCAL TRANSPARENCY

The measures for fiscal transparency developed by the IMF (1998) provide a set of objectives that can help to guide treasury reforms as part of an integrated program of fiscal reforms. The transparency objective is important in itself, but it also provides a guide to improve the overall health of the fiscal management system – improvement of fiscal transparency should lead to improved fiscal management decisions and sound fiscal policies. The following measures can be used as benchmarks to set priorities for reforms and to coordinate efforts between various agencies involved in the execution of government payment programs:

1. **CLARITY OF ROLES AND RESPONSIBILITIES:** Clear mechanisms for the coordination and management of budgetary and extra-budgetary activities should be established, and arrangements vis-à-vis other government entities (e.g., the central bank, commercial banks and other non-bank financial institutions) should be well-defined. Among other requirements, it is desirable that all extra-budgetary funds be handled by the treasury; or, as a minimum, reports by extra-budgetary funds should be consolidated within the treasury system, applying the same standards for accounting, timeliness and periodicity.
2. **GOVERNANCE OF TREASURY SYSTEMS:** Treasury systems should be governed by comprehensive laws and

administrative rules applying to both budgetary and extra-budgetary activities. Any commitment or expenditure of government funds should have proper legal support. Periodically, the legal framework should be reviewed and modified to ensure effective treasury operations.

3. **PUBLIC AVAILABILITY OF INFORMATION:** The treasury should regularly publish information on the level and composition of its debt and financial assets. Specific commitments should also be made to the publication of fiscal information (e.g. budget law). For these purposes, a calendar of release dates for fiscal reporting data should be announced.
4. **TRANSPARENT PROCEDURES FOR PROCUREMENT AND PUBLIC REPORTING:** To ensure effectiveness of the treasury systems, procedures for procurement and employment should also be standardized and be accessible to all interested parties. Budget execution should be internally audited, and audit procedures should be open to review. During the year, there should be regular, timely reporting of budget and extra-budgetary outturns, which should be compared with original estimates. In the absence of detailed information on lower levels of government, available indicators of their financial position should be provided (e.g. bank borrowing, issuance of debt in financial markets).

97. Growing automation, the use of innovative payment methods and the use of multiple service providers, among other elements, are making the management of data security aspects increasingly challenging. Strong rules and procedures should be in place for safeguarding sensitive customer information. This should be applicable not only to the treasury's own staff, processes and systems, but also to those of its service providers.

98. Liquidity risk is the risk that the treasury (or more generally the government) will not be able to cover its payment obligations when due. Among other key elements, liquidity risk management involves the forecasting of liquidity needs and availability of resources – including any debt undertakings –, continuous reporting of actual figures to contrast them with forecasts, and making adjustments as necessary. The reliability of forecasts and reports is heavily dependent on the integrity of the information, for which a robust IFMIS is critical. Moreover, a TSA can further assist with liquidity management by facilitating reporting and overall cash management.

99. Legal risk stems from the inadequate or erroneous observance of the applicable legal and regulatory framework. Legal risks are generally greater where there is an absence of laws and regulations, or when such laws do exist but are unclear and may be subject to multiple interpretations. Guidelines 5 and 6 in this report provide detailed guidance on legal and regulatory issues for government payment programs.

Guideline 2. Review and streamline treasury processes, then work on their automation: the treasury should devote extensive efforts to identifying all relevant needs with regard to improved safety, efficiency and transparency.

100. All processes within the national treasury should be reviewed, and eventually revised in light of the ob-

jectives set forth for government payment programs, which should be closely associated with specific needs.

101. Financial management and payment processing activities within the national treasury should rely on automation as much as possible. A modern and robust integrated financial management information systems (IFMIS) with proper interfaces to payment systems and, if applicable, the TSA, can contribute to enhanced efficiency and improved risk management of government payment programs by automating processes, enforcing internal controls and by providing timely and reliable information for decision-making.³⁷

102. However, a decision to upgrade the available technological solution, if any, or to buy and implement a new one should be made only once there is clarity on what are the optimal processes, controls and information requirements that such an upgraded or new solution intends to support. Often, implementing new technology-based solutions (i.e. additional functionalities or modules, or brand new systems) is mistakenly viewed as a fix to processes that are inherently inefficient. For example, the automation of a task that is redundant or largely unnecessary will yield little value added. In order to avoid such a risk, a deep review of the existing workflow as well as the associated management and organizational structures is highly desirable as it is likely to uncover improvement opportunities that might not have been identified otherwise.

103. Governments and their treasuries, with the support from the central bank as necessary, should also strive to streamline and consolidate into a unified

³⁷ An IFMIS can be built either through an in-house technological development, or acquired from a vendor. While each of these approaches has its own advantages and disadvantages, preference for commercial software packages seems to be growing given their increased flexibility to accommodate country-specific requirements and the easiness to include new functionalities, best practices and standards through regular software updates. The IMF and the World Bank have developed broad functional requirements for an IFMIS that can be used as the starting point for the development of a country-specific version.

structure (i.e. the treasury single account or TSA) the transactional accounts held by the various government entities. The potential benefits of a TSA can be significant, not only for government payment programs but also for other public policy actions such as the implementation of monetary policy, among others.

104. The real impact of the TSA will, however, depend on its coverage. Therefore, it is highly desirable that the TSA covers all central government entities and their transactions, including autonomous government entities, accounts managed by social security funds and other trust funds, extra-budgetary funds, and loans from the multilateral institutions and donor aid resources, among others. In some cases, the TSA has also been extended to include sub-national levels of government.

105. The effectiveness of the TSA will also depend on the degree of automation and integration with other information systems (e.g. the IFMIS) and one or more payment systems (e.g. the RTGS system). In an ideal scenario, once a payment request is initiated by any given government agency, that request should be able to advance throughout the remaining processes without any further human intervention, including the last step in which the financial resources are finally credited to the account of the beneficiary (so-called “end-to-end straight-through processing” or STP).

106. Likewise, government billing and collection IT systems should be able to interface with interbank payment systems – and, if applicable, with the relevant payment modules of banks and other payment service providers for transaction details that cannot be obtained directly from interbank payment systems – to offer bill payment and collection services efficiently.³⁸

³⁸ Annex C provides several examples of the modernization of billing and collection systems, including in particular the cases of Azerbaijan and Saudi Arabia.

Guideline 3. Take full advantage of electronic payment methods: *the extensive use of electronic payments in government payment programs can reduce costs and improve transparency and traceability.*

107. To an important extent, the safety and efficiency of government payment programs also depend on that the form of payment being used allows for the prompt, safe, convenient and cost-effective transfer of financial value from/to the government. In this regard, electronic payments generally have inherent advantages over cash and other paper-based payments. Moreover, electronic payments can leverage the developmental impact of government payment programs by providing unbanked beneficiaries with access to a payments account.

108. The various payment instruments and means offer different advantages and disadvantages with regard to safety, cost and convenience, among others (see Table 1). The treasury, with the support of the central bank as necessary, should explore the kinds of payment methods available in the marketplace in order to determine what specific payment product is more suitable for each specific payment program. Care must be taken to understand the related risks and manage them accordingly.

109. The fact that electronic payment mechanisms entail paying some form of retribution to the relevant payment service provider(s) should not be an impediment for their adoption.³⁹ Even if cash and probably other paper-based payments do not carry this type of cost, they are subject to several other costs (e.g. cash handling costs, overhead and administrative expenses, among others) that, taken as a whole, are normally significantly higher than those of electronic payments.

³⁹ In some occasions this consists of an explicit fee (e.g. per transaction fees or a monthly fee), while in others the service provider is compensated through other means, like being allowed to hold the resources for a few days before these are actually credited to the beneficiary and taking advantage of the associated float.

110. It should be noted that the use of very specific payment products characterized by limited functionality can be costly over time for the national treasury while rendering little benefit to the users of those products, which are typically the recipients of government cash transfers. Therefore, government payment programs should strive to use mainstream electronic payment instruments/methods and infrastructure as much as possible to benefit from economies of scale.⁴⁰ Recipients can also benefit from the investments already made in that infrastructure, which may enable them to access to a broader range of payment services at a reasonable cost.

Guideline 4. Create appropriate organizational arrangements to foster the continuous development of government payment programs: *the national treasury/ministry of finance should consider engaging in collaborative schemes with the central bank and other stakeholders to identify additional improvement opportunities for government payments and, eventually, facilitate their implementation.*

111. It should be recognized that the continuous development of government payment programs is complex and requires continuous dialogue, cooperation and coordination amongst the key stakeholders. Therefore, to ensure that all the core elements are duly considered, including the potential of government payment programs to create positive externalities in other areas, cooperation on technical, regulatory, operational and oversight matters should be encouraged.

112. The treasury should engage in regular dialogue with the central bank, the banking system and other payment service providers to determine whether the needs of the treasury are being duly satisfied with the instruments, methods and services currently being of-

fered. When this is not the case, the relevant stakeholders, in particular the central bank in its role as payment system overseer and catalyst for change, should evaluate what the impediments and hurdles are (e.g. insufficient payments infrastructure, lack of competition in the payments market) and work in close collaboration with the relevant parties to overcome such difficulties.

113. When undertaking reforms, clarification of the roles and responsibilities of each of the key parties at an early stage is essential to ensure that the process itself will flow smoothly. As the agency with direct responsibility for the operation of government payment programs, the national treasury—or if applicable the ministry of finance—should be kept at the center of the reform effort, in close partnership with the central bank given the latter's overall responsibility for the proper functioning of the national payments system.⁴¹

114. It is important that in the early stages of any reform effort discussions focus on agreeing on a common vision and a strategy to implement that vision in a timely manner. Other relevant stakeholders like commercial banks and non-bank payment service providers should be included in these debates. Discussions on detailed technical issues (e.g. specific instruments, technologies and infrastructure designs) should be deferred until the previous steps have been completed and agreed upon.

115. The introduction of new arrangements for government payments and collections may require a reorganization and/or realignment of activities and functions within the national treasury, in some units at the central bank and the ministry of finance, and even at line ministries and other public sector agencies in what concerns their budget execution functions. Institutional and organizational reforms should therefore

⁴⁰ For further information see Bold C, D. Porteous and S. Rotman, "Social Cash Transfers and Financial Inclusion: Evidence from Four Countries", Consultative Group to Assist the Poor, Focus Note 77, Washington, 2012.

⁴¹ In several cases, the modernization of government payment programs has been a consequence of a broader effort to reform the national payments system, a task which is normally entrusted to the central bank.

BOX 7: A BASIC LEGAL FRAMEWORK FOR THE NATIONAL PAYMENTS SYSTEM

Laws of general application which support a payment system:

- Property and contract laws - established through common law (jurisprudence) or applicable legislation (including a civil code) that create legally enforceable rights and obligations to make and receive payment.
- Banking and finance laws - establishing the rights and obligations of financial institutions to take deposits, make loans, grant and take collateral security, and hold and deal in securities.
- Insolvency laws - establishing the rights and obligations of creditors of an insolvent entity.
- Laws on the use of credit and collateral - including credit terms (interest rates, duration, rights on default), debtor rights, and the creation, realization and priority ranking of rights in collateral.
- Laws for determining which jurisdiction's laws apply - including contractual choice of law clauses and conflict of laws rules.
- Laws on electronic documents and digital signatures.

Laws specific to payment systems:

- Laws specific to payment instruments - including currency laws, bill of exchange and cheque laws, electronic payments laws, regulations against unfair payment instruments and services, and rules establishing instrument standards (size, configuration, coding).
- Laws relating to the calculation and discharge of payment obligations - including netting, novation, finality of payment and settlement.
- Laws on default proceedings and disputes in payments - priority ranking of payment settlement claims, settlement guarantees and loss allocation agreements, priority rights to collateral for settlement credit, evidence laws regarding electronic payments, and dispute resolution mechanisms such as arbitration clauses.
- Laws related to central bank roles, responsibility and authority in the national payment system.
- Laws relating to the formation and conduct of infrastructure service providers and markets - formation and operation of clearing and settlement arrangements, access and participation in infrastructure systems, pricing of infrastructure services, rules on the issuance and redemption of e-money, and protection of central counterparties from risk.
- Laws governing securities infrastructure services - addressing dematerialization and immobilization of securities, book-entry holding and transfer of securities, delivery versus payment, finality of transfer and settlement.

receive proper attention and proceed in parallel with any new system implementation.⁴²

3.2.2 Legal and Regulatory Environment

Guideline 5. An appropriate legal framework with specific applicability to government payment programs can further underpin their safe and efficient operation: laws and/or regulations that provide clarity and certainty to the various parties involved, and that promote effectiveness and transparency in the execution of programs should be enacted/approved.

116. On the institutional side, the legal and regulatory framework should clarify the respective roles and responsibilities of the national treasury, the ministry of finance, the central bank and any other government agencies involved in the operation or execution of government expenditures and collections, and make sure that all these entities are properly empowered to undertake such roles. The roles and responsibilities of banks and/or other payment service providers with what concerns government payment programs should also be provided for.

117. Treasury operations and methods, including related core systems such as an IFMIS and its interrelations with payment systems and the TSA, among others, should be supported by appropriate laws, regulations and/or rules. This would include defining rules for the main aspects related to financial management such as procurement, borrowing and investing, asset management and control, and reporting and audit, taking into account the way in which these activities are executed through the existing systems or any envisioned new systems or methods (e.g. public expenditure management process through the TSA and its linkages with IFMIS modules for controls and appropriations).

118. Given its importance for the efficient execution of government payment programs, specific legislation or regulation may be needed to ensure that the scope of the TSA is wide enough so as to ensure its effectiveness.

119. Rules should also be developed to cover the specific operational issues of specific programs. Some of the elements that need to be covered include the eligibility criteria for the potential beneficiaries of a payment program (e.g. conditional cash transfers), procurement practices for selecting an appropriate vendor to operate the program, the types of electronic payment instruments that will be used, threshold values of purchases that can be made using a particular payment instrument, reporting requirements, and audits to ensure proper compliance with the stated guidelines.

Guideline 6. Laws and regulations on payment instruments and systems, competition and consumer protection can also have an important bearing on government payment programs: the legal basis should support sound and fair practices in the market place, and be flexible enough to accommodate innovations.

120. The legal framework for a national payments system is the body of law which determines the rights and obligations of parties in the system. It also deals with the transfer procedures and resolution of disputes regarding instruments, services, organizational arrangements and governance procedures for transferring and settling obligations with finality. A sound and comprehensive legal framework reduces uncertainty and risk for the participants in payment infrastructures and service markets, and is therefore highly relevant for the safe and efficient operation of government payment programs. Box 7 shows the basic elements of a legal framework for the national payments system as identified in the Committee on Payment and Settlement Systems (CPSS) “General Guidance for National Payment System Development”.

⁴² Annex A provides a country example illustrating the re-organization of treasury functions on the basis of a collaborative scheme between the key stakeholders.

121. To ensure that electronic payments can be properly used for government payments and collections, their legal recognition as a valid means for discharging financial obligations is critical. The legal and regulatory framework must also ensure functional equivalence between electronic and paper-based payments, making sure that electronic transactions are legally binding. Among other elements, this requires laws supporting the use of electronic means of authentication, electronic signatures and electronic evidence.⁴³

122. The legal and regulatory framework for the national payments system should be able to efficiently accommodate evolution in the payments landscape. For example, wherever possible it is desirable that new practices, innovative payment methods and instruments, new types of payment service providers and the extension of the central bank's oversight power over such innovations and new service providers be accommodated without having to produce specific laws or regulations for each of them. In this regard, some countries have produced new legal pieces taking as a basis a functional approach (i.e. the function or service actually performed by the subject of the regulation) rather than an institutional approach (i.e. whether the entity providing the service is a licensed bank, a non-bank payment service provider, etc.).⁴⁴

123. The emergence of non-traditional payment service providers might require further adjustments to the legal and regulatory framework in order to make sure that the requirements set forth in the legislation (e.g. capital adequacy ratios) are proportionate to the risks posed by such service providers. On the other hand, since many of these non-traditional payment service providers rely on non-bank retailers as correspondents and/or agents for providing cash-in and

cash-out services to their customers, among other services, special regulations might be needed to ensure that those correspondents and agents operate appropriately and safely.⁴⁵

124. Proper consumer adoption of electronic payments depends to an important extent on consumers trusting these forms of payment.⁴⁶ Laws and regulations should ensure that consumers receive from the service provider all the necessary information to get acquainted with the key features of the new instrument or method they are using, the specific services they should expect to receive from the service provider, the associated fees and other charges, if any, and what mechanisms are available to solve disputes.

125. Consumer protection measures like the ones mentioned in the previous paragraph should be designed to be applicable not only in the context of government payment programs but rather to all users of the relevant payment instruments and/or services. However, given the fact that government payment programs often reach population segments that until then have had little or no exposure to modern payment instruments and services, additional consumer protection measures targeting those specific populations sectors might also be desirable. For example, the treasury could require payment service providers operating G2P transfers as part of a social program to implement a simplified and cost-effective mechanism for the resolution of disputes.

126. The legal and regulatory framework should also strive to prevent anti-competitive practices and behaviors such as exclusivity agreements (e.g. an agent be-

⁴³ For example, individuals and businesses making electronic payments to the government remotely would like to make sure that in case of a dispute (e.g. the payment was not properly credited to them) the record of the electronic payment can be used as evidence for this purpose.

⁴⁴ See for example de EU Payment Services Directive (Directive 2007/64/EC).

⁴⁵ For example, the relevant regulations should establish minimum criteria for banks and/or non-bank payment services providers to appoint retailers as correspondents or agents, the specific activities these entities are entitled to perform on behalf of them, and the extent of their liability.

⁴⁶ In this context, consumer adoption refers to both the individual beneficiaries of government payments, individual taxpayers, staff of government agencies already using or that will use electronic payments, and the staff of businesses involved in G2B and B2G payments.

ing forced by a payment service provider to work only with it), conscious efforts to impede the interoperability of payment services, or unfair or unjustified denial of access to corporate payment services. The legislation itself should also avoid granting exclusive powers or rights to a specific type of institution to provide certain payment services.

3.2.3 Payment System Infrastructure

Guideline 7. An appropriate payments infrastructure should be in place: *the potential to obtain substantial benefits from migrating government expenditures and collections to electronic payments relies on there being the required payments infrastructures to process such payments safely, efficiently and at a reasonable cost.*

127. A modern interbank payments infrastructure normally includes a RTGS system, one or more ACHs to process different types of payment instruments, and a sufficiently large and geographically dispersed network of access and delivery channels such as ATMs, POS terminals, physical branches or internet access. It should be noted that both retail payment systems as well as large-value payment systems are important for government payment programs. For example, an ACH supporting retail electronic credit transfers is crucial for the disbursement of G2P or G2B payments, and also for taxpayers. Large-value payment systems on the other hand are widely used for G2G payments or transfers or to assist the Treasury in its cash management functions.

128. The creation of mobile money services and the use of retailers as correspondents and agents to provide payment (and other) services are examples of innovations that can support government payments – and other types of payments as well, like remittances – by effectively bypassing some of the gaps in infrastructure (e.g. insufficient number of physical branches, ATMs or POS terminals) and/or limited financial

inclusion. Some specific products of this kind have already achieved a certain degree of success. Nevertheless, their potential could be further enhanced by being able to rely on an appropriate centralized payments infrastructure for clearing and settlement to reduce processing costs and potentially even improve acceptance (see Guideline 8).

129. The treasury, the central bank and other relevant stakeholders should therefore evaluate what pieces of infrastructure are missing in the country, or which of the existing elements need to be improved or upgraded to properly support government payment programs. Any additions or improvements that have the potential to increase the safety and efficiency of government payments programs should be encouraged.

130. The efficiency of interbank payment systems is also conditional on the robustness of the telecommunications infrastructure and on banks and other payment service providers having in place appropriate systems of their own to process payment orders internally in an efficient manner. In fact, automated account management systems are a crucial pre-requirement for banks and other payment service providers to offer electronic payment services effectively (e.g. on-line authorization of payment card transactions).

Guideline 8. Maximize the potential of the available infrastructures through interoperability and wide-spread usage: *payment service providers being able to channel their payment operations through any of the key mainstream infrastructures promotes efficiency, network expansion, and a level playing field for all players.*

131. Limited or null interoperability of payment systems, for example as a result of lack of common standards, is likely to result in each payment service provider needing to create its own proprietary systems, procedures and in many cases enter into specific business tie-ups with payees and payers. Repercussions of

this situation typically include higher processing costs and reduced convenience for customers than otherwise would be possible, and may lead them to refrain from using the relevant payment instrument(s). In the extreme, lack of interoperability might impede achieving the critical mass or required volumes that are necessary for a system to become profitable, and as a result investors may refrain from investing in such a system.

132. The adoption of common technical, usage, and data standards for payment services is a key pre-requisite for interoperability amongst payment systems in order to ensure competition and cost reduction.⁴⁷ Moreover, emphasis should also be placed in the adoption of *open and modern standards* (such as ISO 20022 XML). Although outside the scope of this report, these are crucial for facilitating international payment flows and to facilitate the implementation of newer technologies and/or vendor upgrades.

133. Interoperability might be limited for other reasons, however. These include business decisions whereby system owners purposely opt to compete on the basis of deploying proprietary infrastructure, difficulties in reaching agreements regarding the mutual remuneration for the use of each other's infrastructure or efforts directly aiming at blocking specific commercial brands or competitors. Yet in other cases, for example some innovative payment products that are not that well-developed as of yet, interoperability can be too onerous at that particular stage of development.

134. The central bank, in its roles as catalyst for change and payment system overseer, is typically best positioned to promote and facilitate the adoption of com-

mon standards, as well as to address other kind of hurdles to interoperability like the ones described in the previous paragraph.⁴⁸

135. Being able to make use of the domestic payments infrastructure at a reasonable cost and within appropriate service levels is an important element underlying a competitive and contestable payments market. In most cases this can be achieved either through direct access or through indirect access to the infrastructure - provided the majority or the most representative direct participants do not set unduly restrictive or overly costly conditions on the payment services they provide to indirect participants.

136. The central bank in its role as payment system overseer should ensure that the payment systems it oversees have objective, risk-based, and publicly disclosed criteria for fair and open access to their services including by direct, and where relevant, indirect participation. Where retail payment systems are not in the scope of the central bank oversight responsibility, the relevant public authorities may cooperate to ensure fair and open access to such systems.⁴⁹

⁴⁷ Perhaps the most notable example of the importance of the adoption of common standards for interoperability is that of the Single Euro Payments Area project in Europe. Extensive literature is available on this subject, including materials produced by the European Central Bank, the European Payments Council and many others. For a specific discussion on standards readers may wish to refer to: Ruth Wandhöfer, "EU Payments Integration: the tale of SEPA, PSD and other milestones along the road", Palgrave MacMillan, 2010.

⁴⁸ In some cases, the central bank may opt for a moral suasion approach to encourage all relevant market participants to become reachable. In others, it may need to use its regulatory powers to ensure appropriate interoperability by eradicating anti-competitive practices.

⁴⁹ In some countries, authorities themselves have devised alternative methods to provide access to interbank payment systems to smaller or non-traditional payment services providers that typically have very limited automation of their operations. One example is the creation of a special communications network connecting such entities with a state-owned commercial bank, from which they can then offer payment products and services, and also link up their service outlets to provide a virtual large service delivery network.

3.2.4 Cooperation and Partnerships to Leverage the Impact of Government Payment Programs

General Guideline 9. Adopt a strategic approach to the development of government payment programs: *the reforming of government payment programs has the potential to trigger the development of a robust payments infrastructure, which in turn will support the safe and efficient processing of government payments.*

137. The development of safe and efficient government payment programs and the overall development of the national payments system are closely interconnected. When reforming efforts are properly coordinated, a virtuous circle can be created. For example, a decision to use electronic transfers for certain types of massive G2P payments can bring in the required critical mass for the creation or enhancement of the relevant payments system, which might not have been possible otherwise.

138. The lead reformers, in particular the treasury and the central bank, working collaboratively among them and with other stakeholders, in particular payment service providers, through an efficient participation and coordination mechanism, should ensure that the interrelations and positive externalities between the reforming of government payment programs and of the overall national payments system are duly considered and taken advantage of.⁵⁰

139. The treasury and the central bank should also cooperate at the operational level. For example, coordinating the daily disbursement of government payments to bring liquidity into the banking system early in the morning facilitates a smoother flow of payments

in the RTGS system in the initial hours of the operational day.

140. Legal reform is another area where government payment programs can trigger positive developments for the national payment systems as a whole. For example, with the launching of a new major government payment program the central bank may consider updating the regulatory framework to sufficiently address emerging payment services and new technologies, or to enhance its payment system oversight framework.

General Guideline 10. Leverage on government payment programs to promote financial inclusion: *the large volume of payments issued by governments, as well as the nature of some specific programs like social spending programs, represents an opportunity to promote or facilitate financial inclusion on a large scale.*

141. The developmental impact of government payment programs can be further enhanced when such programs provide access to payment accounts through the use of electronic payments. G2P payments, in particular recurring benefit payments to low-income and/or unbanked individuals, are especially suited for this purpose. In turn, access to a payment accounts can potentially facilitate access to broader financial services such as deposits, loans and/or insurance.

142. Government authorities together with other relevant stakeholders can also promote that the infrastructure that will need to be deployed for G2P payments, including logistical arrangements and the agent or correspondent network, also be used to deliver broader financial services. For example, an ATM that has been installed to support cash withdrawals in connection with conditional cash transfers to poor segments of the population can also be used for providing other financial services, like making deposits to a savings account, account-to-account transfers, payment of utilities, ob-

⁵⁰ The CPSS “General Guidance for National Payment System Development” report provides detailed guidance on the potential approaches for creating an effective institutional framework to support payment system reforms.

taining information about insurance products (or even purchasing the product), etc.

143. Whereas G2P payments are seen as the primary means to promote financial inclusion, government collections or P2G payments can also be leveraged for this purpose as unbanked individuals also have to pay for government services. Therefore, stakeholders can also promote and facilitate the use of payment accounts for this purpose.

144. Individuals that have been provided with a payments account through a government payments program might still be reluctant to use it for a variety of reasons as explained in section 2.3.4. The use of financial literacy campaigns is an especially effective tool to facilitate the effective adoption of the new payment alternatives and products. Moreover, government authorities should promote that these payment accounts be safe and reliable, affordable, convenient, and transparent (see Guideline 6).

145. Financial inclusion is becoming a national public policy objective in a growing number of countries. In this context, it should be noted that while government payment programs can indeed contribute towards this policy objective, they are not the only tool available for this purpose. Moreover, for government payment programs financial inclusion is typically an ancillary objective as compared to the objectives of overall safety, efficiency and transparency. Policymakers should therefore make use of all the various policy tools and instruments at their disposal for the fulfillment of the financial inclusion objective.

3.3 IMPLEMENTING THE GENERAL GUIDELINES

146. The World Bank exhorts country authorities to undertake a self-assessment or stocktaking exercise to determine the degree to which their various government payment programs, individually and as a whole, operate along the lines stated in the General Guidelines.

147. Complementing the General Guidelines, the various annexes included in this report present a number of country case studies and additional materials such as surveys and methodologies developed for cross country-comparisons that can also be useful information sources and tools when undertaking the recommended stocktaking exercise.

148. In this regard, annexes A through E present a variety of country case studies on issues such as undertaking a comprehensive reform of government payments, initial adoption or modernization of a TSA, adoption of electronic payments in connection with government payment programs, risk management in these programs, and improving financial inclusion by channeling government social transfers through appropriate payment and financial products.

149. Annexes F through H present a set of different tools. Annex F presents an analytical framework to assist the treasury in identifying all relevant links and correlations among different actors, activities and outputs. Annex G includes the questionnaire on government payments developed by the World Bank as a reference for its second Global Payment Systems Survey, which can be used as checklist to ensure that the key specific issues and considerations are being duly identified. Annex H presents information on the 2011 Government E-Payments Adoption Ranking (GEAR) study, which measures the extent to which countries provide key government payment services through

electronic platforms (such as the Internet and mobile-phone networks) and the underlying factors that affect government e-payments adoption.⁵¹

150. Finally, as mentioned in the introductory section to this report, in a second phase the World Bank and the IAG will continue to work to develop additional material, tools and other types of contributions to further assist countries with the practical implementation of the General Guidelines. It is the expectation of the World Bank and the IAG that this additional guidance be available shortly after the public release of this report.

⁵¹For further information refer to “2011 Government E-Payments Adoption Ranking”, a global index and benchmarking study by the Economist Intelligence Unit, sponsored by Visa Inc., March 2012. Available at www.visa.com/gear.

ANNEX A: CASE STUDY – A COMPREHENSIVE APPROACH TO REFORMING GOVERNMENT PAYMENTS: THE CASE OF ITALY⁵²

SIPA is the acronym for the Italian “Government Payments Computerized System”, which processes all payments initiated by the Italian central government, including ministries, other central departments and some decentralized offices. SIPA is the outcome of an agreement between the main institutional actors of the Italian government payments system to reform the existing operational framework in order to address two main needs: i) to improve the performance of payment procedures in terms of cost reduction, timeliness and process reengineering; and, ii) to have timely data for both controlling state budget execution and for monitoring general government spending.

The main objectives of the SIPA were thus to:

- Introduce information and communication technology in public spending and reporting procedures in order to ensure reliable data and information;
- Ensure timeliness of payments;
- Replace paper with electronic data;
- Execute payments using, as a rule, electronic payments

Apart from the architectural and technical aspects, SIPA is mainly an agreement and a method. The general agreement was signed in 2000 by the General Accounting Office, Digit PA (the government agency for the innovation in public administration), the Court of Auditors and the Bank of Italy in its role as State Treasurer. This agreement is similar to a Memorandum of

Understanding, defining roles and responsibilities for each of the signatory institutions. It also identifies the technical architecture as well as the steps that any actor has to follow to introduce or share new procedures. The SIPA has been operating through a Strategic Committee, chaired by the General Accounting Office, and a Steering Committee, chaired by Digit PA.

One of the main challenges was the prevalence of an old and inorganic treasury services regulatory framework. Before the year 2000, any innovative procedures could not be covered under that basic framework and required the production of additional specific regulations. This made the regulatory framework overly complex. Starting 2000, the overall framework was reformed and a deregulation process was initiated.

The technical architecture of the system rests on a gateway between the general government’s electronic network and the interbank network. All payments initiated by the central government and checked by the General Accounting Office are routed to the Bank of Italy, which generates electronic credit transfers sent through the interbank network. Reporting information is sent from the banking system to the Bank of Italy and the General Accounting Office, and then routed to the relevant government agency or department.

In less than 5 years SIPA led to the dematerialization of about 40 million payments. As a consequence, in the last ten years the Bank of Italy has experienced the reduction of about 50 percent of the staff required for government treasury services.

⁵² Contribution made by Banca d’Italia.

ANNEX B: THE TREASURY SINGLE ACCOUNT: COUNTRY EXAMPLES

FRANCE⁵³

The French government does not use accounts with commercial banks. Through the French Treasury, the *Agence France Trésor* (AFT), which is part of the Ministry of Economy, Finance and Industry, it has developed a TSA at the central bank.

The TSA includes the balances of all central government revenue and spending departments (including overseas authorities) as well as those of so-called “treasury correspondents” which are regional and local governments and certain quasi-governmental bodies such as state-owned enterprises. Social security funds are not held at the TSA but at the *Caisse des Depots et Consignations*, a state-owned savings bank.

Cash (and debt) management is the responsibility of the AFT. Cash management includes all central government cash flows (including investment flows) and financing transactions. It also includes the cash flows of treasury correspondents.⁵⁴ The AFT actively manages the TSA: it invests (and if necessary borrows) surplus funds in the money markets with a view to maintaining a low and stable end-of-day balance in the TSA and ensuring the best return on the investment of surplus cash.

The spending agencies make expenditure commitments and forward payment requests to one of the nearly 4500 regional treasury offices. The actual payments are made from the regional sub-accounts of the TSA. Closing balances in such sub-accounts are swept into the TSA in real time.

Historically, the coverage of the AFT has been very broad compared to treasuries in other OECD countries. Under recent reforms, however, the coverage of the TSA has been steadily shrinking.

ITALY

With nearly 11,000 public institutions including the central government, 20 regional governments and a municipal system with a high degree of spending autonomy, the Italian Treasury plays a significant role in managing public spending.

The central bank has developed a treasury system that manages over 17000 sub-accounts in the name of local governments, social security institutions and other autonomous public institutions with extra budgetary funds. The solution provided by the central bank focused on developing a consolidated model to address the “asymmetric” structure of public financial flows in Italy as the collection of revenues is highly centralized while spending procedures and responsibilities are decentralized. In fact, transfers from the central level to the local levels are the fulcrum of whole the system. G2G payments account for 67 percent of the total payments made by the central bank in terms of value, but only 1.2 percent in terms of the number of transactions.

The wide use of a sub-accounts system aims at both monitoring general government cash flows and reducing liquidity and borrowing requirements. It provides the Italian Ministry of Finance with full control over budget allocations and budget execution process. All sub-accounts end up being consolidated in the treasury’s general ledger, thereby reducing the volatility of cash flows and allowing the treasury to maintain a lower cash buffer to meet unexpected events.

⁵³ Sources: IMF and *Banque de France*.

⁵⁴ While movements in the accounts of treasury correspondents do not directly concern the central government from a control perspective, they do have a direct impact on the TSA, and therefore they affect the AFT’s cash management task.

Other integrated systems have been implemented more recently to collect data and information on public payments and revenues in an effort to further improve the management of public monies.

MEXICO⁵⁵

In 2007, the national treasury (TESOFE) and the central bank initiated a project to establish a TSA.⁵⁶ The main goals of this project were to improve the financial management of federal funds and setting up a process for TESOFE to pay directly from its account at the central bank to the accounts of government employees as well as service providers and contractors.

Prior to the launch of the TSA, the various federal agencies had one or more accounts with commercial agreements. The TESOFE would wire the budgetary funds to such accounts. Federal agencies would normally have individual agreements with the banks for the latter to disburse the funds to the final beneficiary. In some cases commercial banks would charge a fee to provide the required services, although in most cases the agreement included at least 2 or 3 days of float for the commercial bank before the actual distribution of the resources.

The TESOFE and the central bank teamed up to be the driving forces behind the project. The project included a legal mandate for the use of TSA for the collection of taxes and for the disbursement of all government payments. Responsibilities were defined and assigned to government agencies.

In October 2008, the central bank facilitated the connectivity between TESOFE and its real-time gross

settlement system, the SPEI. G2B and G2P payments are now made through TESOFE's connection to SPEI. Given the large number of transactions and information involved, in particular with regard to government employee payrolls, SPEI's opening time was modified in order to give commercial banks more time to receive and process information during the night shifts.⁵⁷ SPEI now opens at 7:30 pm the day before the value date of the payments, and it remains open until 5:30 pm. Moreover, a new type of payments was defined in SPEI in order to achieve a more straightforward identification of government payroll payments. These payments are sent at the opening of the system and have to be credited on the beneficiary's account before 8:40 am.

By March 2012, the total number of G2B and G2P payments processed through SPEI surpassed 8 million per month.

TURKEY⁵⁸

The National Treasury (Treasury), the Ministry of Finance (MoF) and the Central Bank (CBRT) initiated studies to modernize Turkey's government payments system and to improve the TSA in 2006. Key objectives included sweeping idle cash balances on general government institutions' bank accounts into the Treasury's account, and transferring funds from the Treasury's account to those institutions' payment accounts to cover their following day's payments. This new TSA operates through CBRT's correspondent bank where all accounting units' payment accounts are held and electronic information sharing between the

⁵⁷ For this specific payroll project component, TESOFE and the central bank set up a working group together with the Mexican Bankers' Association. The working group met every two weeks during the 8 months that lasted the implementation process.

⁵⁸ Source: Central Bank of the Republic of Turkey, The National Treasury and The Ministry of Finance.

⁵⁵ Source: National Treasury of Mexico (TESOFE) and *Banco de México*.

⁵⁶ The central bank acts as the financial agent for the federal government. Among other things, this includes the disbursement and collection of payments that the TESOFE performs on behalf of the federal government.

parties is in practice since September 2007. This system facilitates outgoing payments through three key steps: (a) Electronic transmission of payment requests from the various ministries to the Treasury for payments to individuals,⁵⁹ institutions or businesses using Say2000i, which is a software application previously developed by the MoF for accounting purposes. The Treasury evaluates the requests according to its cash plan; (b) The payment request is electronically verified by the Treasury through the Say2000i; and, (c) Then, each morning the Treasury transfers the cash from its accounts with the CBRT to the accounting units' payment accounts with the CBRT's correspondent bank.

After a successful implementation for approximately two years of the above-mentioned restructured TSA, the Treasury, the MoF and the CBRT agreed on further developing the system. For this purpose, the MoF and the CBRT jointly started to develop a technological solution, known as KEÖS, for government payments software, which fulfills the TSA function. KEÖS has four operating steps. The first two are the same as those for the restructured TSA. The difference is the utilization of the Public Expenditure and Accounting Information module of KEÖS, known as the KBS, instead of Say2000i. As the third step, the Treasury dispatches the payment orders electronically to the CBRT through a subsidiary system of KBS-KEÖS. In KEOS, the CBRT's correspondent bank is no longer a part of the process and all payment accounts of the accounting units are held with the CBRT. After the cash is released from the Treasury's account to the accounting units' payment accounts, each accounting unit sends its payment orders to the CBRT via TIC-KEOS, and the CBRT directly transfers the funds from the payment accounts to the beneficiary's account through the RTGS system. The CBRT also sends an account summary of the payment transaction electronically to the Treasury and accounting units as a confirmation.

KEOS is planned to be fully operational in mid-2012.

⁵⁹ The payment request includes the amount and the account information of the beneficiary.

ANNEX C: SELECT COUNTRY CASES OF ADOPTION OF ELECTRONIC PAYMENTS AS PART OF GOVERNMENT PAYMENT PROGRAMS

I. GOVERNMENT TO PERSON PAYMENTS

BRAZIL

Brazil's *Bolsa Familia* Program delivers cash transfers to 12.4 million recipients. The program was created in 2003 to bring universal coverage to Brazil's poor after the merger of four cash transfer programs. The program provides low-income families with monthly transfers ranging from US\$7 to US\$45. By switching to electronic benefit cards issued by this state-owned financial institution, the program helped lower administrative costs from 14.7 percent to 2.6 percent of the value of the grants disbursed. But a large share of the savings came from consolidating several cash transfer program payments into one payment account—not just from switching to electronic benefit cards.

The Caixa Economica manages the payments process for all social programs in Brazil. This entity operates the *Cadastro Único*, which is the national registry for social programs, and assigns social identification numbers to individuals. The Ministry of Social Development provides monthly payment authorizations to the Caixa Economica, which then credits the funds to the beneficiaries' electronic benefit cards each month.⁶⁰ The deposits can be accessed through multiple access points, including 2,000 agents, more than 2,000 banking correspondents, 9,000 lottery points, and Caixa Economica ATMs. The payments process is monitored by the Ministry of Social Development as well as by municipal and state coordinators.

⁶⁰ Currently, the Caixa Economica is in the process of transitioning beneficiaries from receiving payments on the electronic benefit card to simplified mainstream accounts (CAIXA Facil).

DOMINICAN REPUBLIC

In the early 2000s, social benefits provided by the government were distributed manually. Aid was not always reaching eligible recipients and the government had no efficient way to monitor distribution and measure results. An economic crisis in 2003 caused the government to look for a better way to deliver assistance to its needy individuals and at the same time improve public spending by identifying the key targets of the population that should benefit from government subsidies.

In 2004, the newly formed Social Subsidies Administration (ADESS), an autonomous agency reporting to the President's Social Policy Cabinet, set out to create a new solution that addressed delivering benefits quickly and cost efficiently, as well as creating a single flow of benefits that the government could control and monitor.

The ADESS launched a card-based distribution program for food subsidies. The beneficiaries of the *Comer Es Primero* (Eating is First) program are now able to purchase groceries with prepaid cards at small neighborhood merchants who were provided with card acceptance terminals. Cash is not accessible through these prepaid cards. As of today, this program involves 850,000 benefit cards used for accessing 9 different subsidies, including food benefits, electricity and gas, through a network of more than 4,500 affiliated merchants.

INDIA

Several central bank programs have enabled large-scale migration of government salaries, pensions, tax refunds, and other G2P payments to electronic means of payments. On the other hand, most G2P programs

directed towards rural areas operated until recently through cash or other paper-based instruments and records. However, G2P payments under the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) generated considerable momentum towards the use of electronic payment mechanisms, as the act requires that wages should be paid to bank accounts or post office deposit accounts.

Close to 12 million adults had enrolled to this program by January 2011 in the Andhra Pradesh state alone. An electronic muster and measurement system (eMMS) was implemented to record measurements and daily attendance. Mandal computer centers (MCCs) were established, one for every 5,000 workers. Each centre is linked to the eMMS and to an electronic funds management system (eFMS) to process payments for wages and materials. The eFMS uses eMMS data to pay for wages and other work-related expenses. All such payments are made either at the intrabank level or through the interbank NEFT/RTGS system operated by the central bank. The Government of Andhra Pradesh transfers a lump sum to the banking partners, with a list of workers who need to be paid. The bank then credits the accounts of the workers. Enrolled workers withdraw their funds through smartcards, which can be used with a network of business correspondents equipped with POS terminals to process transactions.

A different, relevant example is that of the Government of Bihar. This state government is considering implementing a rules-based entitlement engine that would have the following functions: i) maintaining records about recipients and using program rules to calculate the values and due dates of recipients' payments. These data are used to produce payment instruction files that are sent to banks and payment service providers to post the corresponding financial resources in recipients' bank accounts or another payment instrument of choice; and, ii) automating the determination of G2P entitlements, and in the process separate the payment

approval and payment processing functions, which had caused delayed or incomplete payments to beneficiaries.

The Health Operations Payment Engine (HOPE) will act as a system of record and repository of detailed payment transaction data, providing files of summary and detailed payment data to the Bihar state government. The system aims at handling payments for multiple programs. Therefore, it will need to rely on a set of system parameters so that the various programs can be deployed quickly without requiring a systems developer to modify the application each time a new program is implemented or whenever changes are made to existing programs.

The HOPE system is designed to ensure segregation between data entry of events and approval of payments. There will be a clear audit trail of payments and the events that triggered them. The expected benefits of the system include compliance with Government of India policy for conditional G2P payments, the ability to monitor recipients' eligibility overtime and corresponding G2P payments, a centralized inventory of all events that trigger cash payments, the ability to generate payment instructions to multiple payment service providers using different payments instruments (pre-paid cards, bank accounts, smart cards, mobile payments, etc.), and payment notification to recipients.

The Government of India has also implemented the Central Plan Schemes Monitoring System (CPSMS), which is a system to manage and monitor all the financial flows across the various levels of government and also the various local entities created to implement the various government schemes. The CPSMS system also integrates with various banks and can process payments into the accounts of the end recipients. In addition, the Government of India has launched a program to provide identification numbers backed by biometric authentication capability to all residents. This number is called *Aadhar* (Unique Identity - UID).

Aadhar is being integrated into the enrolment process to government payment programs, thereby improving the integrity of the enrollment process. There is also a plan to make this number the identifier for directing payments to end-beneficiaries, with a mapping being done to *Aadhar* and a bank account number in to an intermediate system.

ITALY

In Italy, the central government launched the *Carta Acquisti* social card program in 2008 to provide special benefits to families with little children and senior citizens. It has become one of the most significant government payment programs in Europe both in terms of scale and outreach; the program saw over 500,000 recipients in its first two months of operation. The Italian government chose prepaid cards to deliver these benefits as they were able to control how the funds were used (funds are intended to buy food only) and quick deployment to a large number of people in a short time.

MEXICO

At present, the federal treasury, using its TSA, makes direct electronic payments to the accounts of providers of goods and services of the federal government, as well as payroll payments to the accounts of most federal employees.

Early in 2008, a new agreement with the central bank was signed. The new agreement considers a fixed monthly fee for all the services the central bank provides to the treasury, including unlimited use of the central bank-operated SPEI payments system.

Later on that year, the central bank developed a specific tool within SPEI for the payment of the federal government's payroll and pensions. That tool allows the processing of any type of payments that involve a high volume of beneficiaries. In turn, the treasury overhauled its systems to address the aforementioned

items, so that in the period 2008-2011 the total number of electronic payments made by the treasury increased significantly: from nearly 1.8 million payments in 2008 to over 16.4 million payments in 2011.

The benefits of this new centralized disbursement scheme for government payments include, among others: i) significant savings for the federal government because of the reduction in fees paid to commercial banks; ii) improved transparency; iii) improved budget control; iv) improved financial forecasts; and, v) consolidation of the SPEI.

PAKISTAN⁶¹

In 2008, the Government of Pakistan launched a large cash transfer program called the Benazir Income Support Program (BISP). The BISP began collecting information in 2010 on all eligible households to create a standard unified database. The rollout of the BISP has been greatly aided by the fact that Pakistan has a unique national identity card and an associated citizen identification number. These numbers are issued by and stored on a national database which is managed by another government agency, NADRA.

Initially, the BISP aimed to reach 3.5 million families or 40 percent of the population below the poverty line, although the target number was revised upwards to 7 million in 2010. By June 2010, the BISP had registered 2.2 million households and had disbursed the equivalent of almost US\$500 million in cash grants. Given the limited coverage of the formal financial system in the country, most BISP grants are delivered in the form of a money order issued by the Pakistan Post which has a network of approximately 11,000 post offices nationwide. Pakistan Post was able to quickly adapt its existing money order product to the BISP. For this service,

⁶¹ Additional information on Pakistan's programs may be found at: http://www.cgap.org/gm/document-1.9.50409/cgap_ubl_case_study_jan_2011.pdf.

Pakistan Post receives a fee of 1.5 percent of the total amount of the grant.⁶²

In addition, in early 2010 the BISP launched a pilot for smart cards in order to allow beneficiaries to withdraw their cash from limited-mandate or special purpose accounts. The cards for the pilot were customized by NADRA and the cost, of around US\$5 per smart card, was paid by the BISP. Each card had a chip embedded on the front and a 2D barcode on the back containing national identity card data. This bar code can be read by the mobile phone camera of the disbursing agents. The BISP smart card also requires a PIN. At the time of payment (usually first week of the month), the beneficiary goes with the disbursing agent and hands over his national identity card and BISP cards to the agent. The agent scans the 2D barcode and the beneficiary enters the PIN number into the agent's mobile phone or keypad to authenticate the transaction.

The network of disbursing agents is managed by United Bank Limited (UBL). Agents receive a fee of 1-1.5% for each disbursement transaction. This amount is paid out of the 4 percent fee that BISP pays to UBL.

THE PHILIPPINES

The Conditional Cash Transfer (CCT) Program of the Department of Social Welfare and Development (DSWD) is carried out via the *Pantawid Pamilyang Pilipino Program* (4Ps), which is a poverty reduction and social development strategy of the Philippine National Government that provides conditional cash grants to extremely poor households to improve their health, nutrition and education, particularly of children aged 0-14. It has dual objectives, one is Social Assistance which aims to provide cash assistance to the poor to alleviate their immediate needs (short term poverty alleviation), and second is Social Devel-

opment which intends to break the intergenerational poverty cycle through investments in human capital. The CCT Grants are distributed using the following mechanisms:

- **Cash Card (ATM):** The cash grant is received by the most responsible person in the household, usually the mother, through a cash card issued by the Land Bank of the Philippines (LBP), a state-owned bank.
- **Over-the-Counter via LBP branch:** In cases where payment through a cash card is not feasible, the beneficiaries are able to withdraw their grants through over-the-counter transactions from the nearest LBP.
- **G-Cash Remit:** In December 2010, the DSWD and LBP partnered with Globe Telecom to conduct pilot implementation of using G-Cash Remit, the domestic cash pick-up service of Globe Telecom, in Balabac and Taytay, Palawan as well as Burdeos, Quezon. The G-Cash Remit handles transactions through a wide network of outlets. Moreover, LBP intends to use GCash Remit to disburse cash grants in Albay, Aklan, Aurora, Cebu, Iloilo, Lanao del Norte, Masbate, Sarangani, Sorsogon and others.

RUSSIAN FEDERATION

The federal program “Electronic Russia” was developed with the strategic objective of implementing a universal and user-friendly electronic payment instrument for the delivery of multiple social services (or benefits) throughout the whole territory of the Russian Federation. To facilitate the implementation of this project, the federal law on “Government and Municipal Services” was recently adopted. This law regulates the government provision of such services, including their provision in the electronic form. The law also

⁶²After a series of complaints the collaboration between the post offices and BISP came to an end in early 2012.

regulates the issuance and maintenance of individuals' universal electronic cards (UEC).

The main idea of the program is to provide individuals with a wide range of electronic services within the whole Russian territory through a chip-based smart card. Besides the possibility of using the UEC's payment application for government payment execution, it will also allow its users to obtain government and municipal services (e.g. social assistance services, transportation and medical services), and some financial services, including card payments.

Starting 2013 the UEC will be given to every Russian individual older than 14 years. The UEC will contain some information associated with the user (e.g. essential passport-related information) in visual as well as electronic form. This information will be used for determining the individual's rights/entitlements in association with government, municipal and other services. It is also used to identify and authenticate the user. There are also a number of social projects based on the usage of cards currently operating in the Russian Federation. One of them is Moscow Social Card. Over 10 million cards have been issued (of which 4.5 million are already in use at present) to Moscow residents that are entitled to receive some government benefits. These cards are either magnetic strip/contactless smart cards and include a number of government applications such as transit (subway, railroad, bus), health insurance, loyalty, and discounts from selected stores.

UNITED KINGDOM

In the UK, over four million people currently used to receive some form of government benefit paid through the Post Office on the Post Office Card Account (POCA). The POCA could only be used to withdraw cash at Post Office. The UK Department of Work and Pensions announced a new service through which a large global commercial bank (Citibank) would provide the new-over-the-counter service at outlets across

the country of the UK leading cash payment network operator, PayPoint, used for convenient payment of household bills and top-ups. The new service will begin to be introduced from 2012, and payments by cheque will be phased out gradually to make sure beneficiaries have time to prepare for this change. Customers of this service will be able to use a bank account to receive their entitlements.

UNITED STATES

The United States was an early adopter of electronic G2P payments in the form of electronic benefit transfers (EBTs). The demonstration pilot for EBTs started in 1984 in the state of Pennsylvania for the food stamp program administered by the U.S. Department of Agriculture. The 1996 Personal Responsibility and Work Opportunities Reconciliation Act (PRWORA) mandated that states convert to EBTs for food stamp distribution by October 2002. By June 2004, EBTs had been implemented nationwide for food stamps. Currently, more than 42 million participants receive this benefit each month.

Almost all EBT programs use cards with magnetic strips, such as debit cards, to access participants' EBT accounts. One of the main reasons for the relatively quick adoption of EBT programs was the support they received from retailers due to their lower transaction costs, and recipient satisfaction and preference for EBTs. For example, while many recipients were embarrassed about using food stamps with retailers, EBTs allowed recipients to use ubiquitous payment card technology and removed the stigma of paying with food stamps. Early EBT implementations involved hands-on, in-person training for all food stamp recipients, but program administrators determined that this was not necessary, and later implementations reduced or eliminated hands-on training.

Other relevant efforts to promote migration to electronic payment instruments include those of the Finan-

cial Management Service (FMS), a bureau of the U.S. Department of the Treasury that provides centralized payment services to federal agencies and operates the federal government's collections and deposit systems. In 2005, the FMS launched the GoDirect® program, an ongoing public education campaign that promotes migration from paper cheques to electronic payments in an effort to reduce the time, materials, and cost of mailing cheques, while providing recipients with a safe, convenient, and highly reliable payment option. The GoDirect® program also includes a call center that assists cheque recipients with the switch to electronic funds transfers, either on the telephone or through a secure website. After a few years, nearly 80 percent of the almost one billion annual FMS payments to over 100 million beneficiaries were already electronic.

However, within the Social Security Administration (SSA) alone there were still some 10 million beneficiaries receiving paper cheques each month. An estimated 4 million of these recipients did not have a bank account and were not able to receive direct deposit. The FMS and the SSA worked together in devising a cost-effective, electronic payment solution that would provide additional safety, convenience and usage features. The FMS opted for a prepaid card solution and in April 2008 launched the Direct Express® program. Within two years, more than 860,000 SSA recipients – nearly a quarter of those without bank accounts – had enrolled in the program.

A 2009 survey of Direct Express® cardholders showed high satisfaction rates. The top three reasons included: i) immediate payment – no waiting for a cheque in the mail or it being delayed, lost or stolen, which means recipients can pay bills and make purchases immediately on payment day; ii) safety – no need to go to a cheque cashing provider and carry around lots of cash; and, iii) convenience – payment is received no matter where they are, with access to millions of retail stores.

Beyond these advantages, the Direct Express® program also provides significant cost savings to the U.S. government and taxpayers: it costs US\$1.03 to issue a federal benefit payment by cheque and only US\$0.10 for an electronic payment.

The U.S. Department of the Treasury's All-Electronic initiative (announced in 2010) will dramatically increase the number of electronic transactions in order to reduce paperwork and save taxpayers money. The Treasury estimates the federal government will save an estimated US\$400 million and 12 million pounds of paper in the first five years as a result of this initiative. The announcement highlighted a three-pronged initiative to reduce the number of transactions conducted on paper by moving them to electronic systems:

First, the Treasury issued a regulation that requires individuals to receive their Federal payments electronically. Individuals can receive benefits either through direct deposit into a bank account or on the Direct Express® debit card. The requirement applies to all individuals applying for benefits after May 1, 2011, and to existing cheque recipients beginning on March 1, 2013. This mandate is greatly assisted by the GoDirect® program.

Second, businesses previously using paper Federal Tax Deposit coupons for Federal tax payments were required to make those deposits electronically beginning in 2011.

Finally, the Treasury eliminated the option to purchase paper savings bonds through payroll deductions for Federal employees on Sept. 30, 2010, and for the private sector on Jan. 1, 2011. Instead, these savers can purchase book-entry savings bonds through the TreasuryDirect program.

II. GOVERNMENT TO BUSINESS PAYMENTS

BRAZIL

In 2001, the federal government implemented a corporate card program as part of a broad effort to modernize government purchasing across all federal agencies. The program, known as *Cartão de Pagamento do Governo Federal* or Federal Government Payment Card is supported by *Banco do Brasil*, the exclusive financial agent of the federal government.

Prior to the establishment of this program, funds for all low-value procurement expenses not subject to a bidding process were transferred to current accounts which gave access to cash and cheques (known as “Type B Accounts”). These accounts were funded from the Treasury’s central account, administered by each agency and assigned to an approved federal employee. The employee had up to 90 days to spend those funds. This process had a number of disadvantages. First, during the 90 days in which the funds resided in the account the Treasury faced a challenge in maintaining control of the funds. Second, managing the paperwork associated with multiple accounts across all federal agencies was extremely difficult, time-consuming and expensive.

The introduction of the corporate card program (CPGF) allowed the government to keep all funds in the central account until transactions actually take place. For all transactions within a given period, funds are debited from the account by the bank on a date pre-agreed upon by the Ministry of Planning, Budget and Administration and Banco do Brasil. More importantly, the CPGF allowed for increased transparency and accountability in the use of government funds. Through the federal government’s transparency web-site (www.transparencia.gov.br), the expenses made with payment cards can be tracked by agency and individual cardholder, providing full disclosure of value of the transaction, date and type of merchant. At pres-

ent, each agency’s Expense Administrator determines which employees will receive cards to use for low-value purchases, such as office supplies, repairs, and emergency services, and assigns cardholders their respective spending limits within the parameters established by law. Transaction volumes handled under the CPGF program have steadily increased from R\$3 million in 2002 to R\$73million in 2010, while government agencies using the program more than doubled, from 10 to 23.

In June 2011 a new program was launched, called the “Civil Defense Payment Card”. This program aims at transferring funds from the federal government to state and municipal governments in the context of natural disasters and relief operations. This program includes very specific features such as no access to cash, usage is only domestic and for the procurement of goods and services, and no surcharges can be paid when using the card.

UNITED STATES

The U.S. Department of the Treasury provides the Internet Payment Platform (IPP), which is a web-based electronic invoice exchange network that connects federal agencies and their commercial suppliers. IPP enables agencies to receive invoices electronically from their suppliers, transforming existing paper-based invoice receipt and approval processes into a streamlined electronic process that integrates with existing agency financial and accounting systems. IPP’s single point of entry allows suppliers to invoice multiple IPP-enrolled agencies via either online portal or through automated system-to-system connections, eliminating the need to send paper invoices. Suppliers can also view and receive notification of payments (including debt offsets) associated to their invoices via IPP.

The IPP is designed to yield government-wide efficiencies by: (1) reducing or eliminating paper-based processing by accounts payable; (2) enhancing Treasury’s

value and service to its citizens by increasing access to, and the quality of, payment data; and (3) providing a single, central web-based application in which government finance departments can engage with their suppliers, and in which government suppliers can engage with agencies.

The US Government's acquisition program is managed by the General Services Administration (GSA). The GSA's SmartPay 2 program provides commercial cards for G2B payments to U.S. government agencies/departments, as well as other government levels, through master contracts that are negotiated with major commercial banks. There are currently over 350 agencies/organizations participating in the program, totalling expenses of about US\$30 billion annually through 100 million transactions on over 3 million cards.

Through the master contracts, agencies can obtain a number of different types of G2B products and services to support their business needs, including purchase cards for general supplies and services, travel cards for expenses related to official government travel, and fleet cards for fuel and supplies for government vehicles, among others.

III. PERSON/BUSINESS TO GOVERNMENT PAYMENTS

AZERBAIJAN

Collection of utility bills and other government receipts, and more generally access to payment and financial services was very low, inconvenient and costly. Azerpost, the postal network of Azerbaijan, with a network of over 1,000 post offices around the country was the only institution providing some basic (cash-based) payment and financial services in smaller urban centres and rural areas. The payments infrastructure developed by the Central Bank of Azerbaijan had not yet

effectively integrated key players such as large utilities and did not cover the entire territory of the country.

The State Program for the Development of the National Payments System for the period 2005-2007 aimed basically at: (a) completion of the technological integration of tax, customs and pension payments into the payment system infrastructure, (b) implementation of measures ensuring broader usage of bank accounts and payment cards for pension, social benefit, allowance and other budget-funded allocations, (c) extending access to payment and financial services for population living in underserved rural areas; and, (d) promoting availability and the use of electronic payment options for bill payments for individuals and businesses. Two key projects were implemented to support these objectives: the Centralized Information System on Mass Payments (CISMP) and the modernization and integration of Azerpost into the national payments system.

The purpose of the CISMP was to create a centralized e-subscriber base for utilities and other mass service entities, allowing subscribers to both inquire about their debts with any financial entity linked to the system and to make payments using cash or other payment mechanisms (payment cards, bank transfers, Internet banking). Information on payments received is delivered to the billers within 30 seconds. Changes in the e-subscriber base flow in real time to the CISMP through interfaces with the internal systems of the participating entities.

The e-subscriber base now totals approximately 7 million subscribers in a country where the total population is slight above 9 million. Information on debts is provided by 45 financial organizations through 1,673 payment points, 850 of which are Azerpost payment points.

In 2011 the CISMP processed an average of nearly 63,000 payments a day. Volumes keep growing rapidly. In the first quarter of 2012, approximately 5.9 million

payments were processed, representing a daily average of about 76,000 payments.⁶³

The Azerpost modernization project was implemented over a 5-year period. Three types of services were to be provided in addition to traditional post services: (1) Financial services – electronic payments (benefits, social allowances, funds transfers), collection of utility payments, deposits, other savings services, remittances, issuance of some non-cash payment instruments (e.g. debit cards); (2) E-government services – issuance of various certificates and business and personal documents by local and central executive powers, collection of different taxes, duties, fines and other payments; (3) E-business services – e-trade, opening email addresses, Internet access, information and electronic databases. Azerpost's head office, its 63 branches and 960 postal departments have already been granted permission to provide financial services. In order to issue international payment cards, Azerpost finalized membership certification with an international card organization and issued its first card into circulation.

The government ordinance requiring that the payment of taxes, customs fees, duties and other payments be made directly to government entities in real-time mode originated the decision to create a Government Payments Portal (GPP) on the basis of enhancing and improving the technical and functional capabilities of CISMP. The main idea is to enable accepting payments to the state budget via a single platform.

Transformation of the CISMP into the GPP is being implemented at a rapid pace. Payments collected by the Ministry of Taxes and Ministry of Finance using 90 economic classification and payment codes are already available to be paid through the GPP. Information on taxpayers from some regions, including Baku and two other big cities currently working with the central-

ized treasury account, has been loaded into the central database. The budget classification code, budget level code and budget organization code are determined automatically and added to each payment transaction. Thus, accepting payments is simplified, the number of errors is minimized, and fully automated payment transaction processing in the internal information system of the State Treasury Agency is ensured. In the next stages, the internal information systems of the Ministry of Internal Affairs, State Customs Committee, State Social Protection Fund and other government agencies will be integrated into the GPP.

Recently an e-government system – EHDIS – was launched. So far it incorporates 16 government institutions that provide 60 services. It is expected that the total number of electronic services to be rendered by the various government agencies of the republic will total 300.

BRAZIL

Prior to 2000, bank correspondents in Brazil could only provide bank-like services in locations considered “unattended” (i.e. in areas without bank branches). In 2000 regulations changed, allowing correspondents to set up anywhere in Brazil. The current regulation also allows all financial institutions and other institutions authorized by the Central Bank of Brazil to hire agents to carry out correspondent functions, regardless of whether such agents are members of the national financial system. Among other key services, correspondents collect payments associated with taxes and utility bills.

Since 2002, every municipality in Brazil has had banking services and only 34 lack correspondents. The number of correspondent service points has grown steadily over time. Individuals who do not have an account at an authorized financial institution are able to pay their bills and taxes at any bank branch or correspondent using cash or other payment means. In fact,

⁶³ Additional statistics are available at www.apus.az.

at present correspondents is the most heavily used channel for the payment of public utilities.

RUSSIAN FEDERATION

In the Russian Federation, as a result of cooperation between the Bank of Russia, Federal Treasury and the Ministry of Finance an innovative legal framework was developed to allow the implementation of electronic technologies into the processing of budget payments collected from individuals which are not made through bank accounts (i.e. P2G payments not involving the use of bank accounts).

A new service was developed by the Bank of Russia, enabling credit institutions to transmit information about these payments through the Bank of Russia electronic communication channels to the Federal Treasury for its further delivery to budget income administrators. The structure of the transmitted information allows for the confirmation of the execution of the government payment. The new service has become an effective alternative to traditional practices, whereby credit institutions would remit only one cover payment through the Bank of Russia's payments system, with the simultaneous transmission of the information about each single payment through the information channel. It also allows budget income administrators to properly and efficiently identify the payments made by each individual.

These payments, as well as similar B2G payments, are free of charge by law.

SAUDI ARABIA

Prior to 2002 the government collections situation in Saudi Arabia was highly inefficient, costing the government between 10-15 percent of total revenues annually due to human error, leakage, and delays associated with the manual, cash-based system. The Saudi Arabian Monetary Agency (SAMA) then created the SADAD payment system with the aim to establish a

comprehensive Electronic Bill Payments and Settlement (EBPP) platform to streamline the bill and collection payment process in the Kingdom of Saudi Arabia.

SADAD acts as an intermediary between the billers, commercial banks, and utility companies and government entities. Its services are offered across all available banking channels including ATM, phone banking, internet banking and branch banking. In conjunction with the local banks, SADAD has linked more than 100 billers processing circa 28 million payments per quarter during Q1 of 2011. SADAD billers serve the bill payment needs of various sectors, including telecoms, financial services, utilities, press & media and transportation. In addition, government entities including ministries, municipalities, customs, funds, initiatives and projects utilize SADAD as well.

Functionally, SADAD allows billers to present their bills through the banking channels in four different ways so customers can pay or make billing inquiries electronically, with real-time capabilities: 1) Postpaid transaction: the biller presents an e-bill for each payee, which can be either recurring such as a utility service, or a one-off pre-defined bill such as an airline ticket; 2) Prepaid transaction: billers upload customers' account numbers to SADAD and allow them to pay any amount they desire. This is used for prepaid type services like recharging mobile phones; 3) Fee inquiry and payment service: no bills are pre-uploaded and the inquiries are passed all the way to the biller to fetch the fee amount and any other extra amounts customers will be charged. This service is used by the Ministry of the Interior. Customers request information and/or pay for any of more than 45 different options including traffic violations, driving license, passport, civil registration, or alien control services; and, 4) Refund: customers are able to request refunds through the banks or billers channel if the service already paid for is not utilized.

In 2008, the Ministry of Finance issued a Directive requiring all government electronic collections programs to use the SADAD payment system.

TURKEY⁶⁴

An electronic payment collection system was developed for taxpayers to pay customs duties. Taxpayers use a dedicated debit card called GÜMKART (Customs Electronic Payment Card) at the POS terminals installed in the Customs Accounting Units at the Ministry of Finance. The system was developed by the General Directorate of Public Accounts and the Customs Department, the two main stakeholders, in association with Vakıfbank. Card issuance, POS terminal installation and maintenance, and program support are all managed in a public-private partnership form.

A typical transaction includes the following steps: i) once the taxpayer completes the process of determining customs duties at the Customs Office, he comes to the Treasury for payment. Using the Public Expenditure and Accounting IT module (KBS) of the TSA, the responsible official electronically pulls-up the amount; ii) Using the POS of Vakıfbank the taxpayer then makes the payment with GÜMKART. The transaction requires dual authentication – physical card and password – and the taxpayer's identity/taxpayer number is also checked by the responsible official; iii) Upon completion of the transaction, the POS generates a confirmation receipt for the taxpayer and the relevant confirmation information is also added into the KBS by the responsible official. Through the KBS, the payment confirmation is also available within the Customs IT system; iv) Using the payment confirmation, the taxpayer can then obtain the goods from the Customs Department.

After the completion of the pilot study with Vakıfbank, use of GUMKART Collection System will be extended to all commercial banks in 2012.

⁶⁴Source: The Ministry of Finance.

UNITED STATES

Annually, more than 96 percent of funds collected by the Financial Management Service (FMS) on behalf of federal agencies are collected using electronic methods. One system which has experienced significant growth has been the Electronic Check Processing (ECP) system. While payments are still made using paper checks, this FMS program clears check transactions by converting them to an image or ACH transaction. Pay.gov, a secure government-wide collection portal, also meets the FMS commitment to process collections electronically. Using Internet technologies, Pay.gov provides a suite of services, allowing agencies to obtain and process collections in an efficient and timely manner. The Pay.gov application comprises four services: collections (ACH and credit card), forms, billing/notification, and reporting.

Additionally, taxpayers utilize the Electronic Federal Tax Payment System (EFTPS) to pay tax liabilities owed to the Internal Revenue Service (IRS). The EFTPS is a system for paying federal taxes electronically via the Internet, or by phone using the EFTPS Voice Response System. Taxpayers may also make their tax payments through a Batch or Bulk Filer, or through debit or credit card, with or without e-filing the tax return. When making a payment via credit card, the taxpayer must also absorb the cost of the associated merchant fee.

In 2012, FMS will establish and operate a Centralized Receivables Service (CRS) Pilot. This pilot program will be conducted pursuant to Treasury's effort to improve and streamline financial management across the U.S. government. The CRS pilot will enlist up to five federal agencies using an accounts receivable servicer, and the results will help Treasury evaluate the viability of providing a centralized accounts receivable service.

ANNEX D: CASE STUDIES ON MANAGING RISKS IN GOVERNMENT PAYMENT PROGRAMS

I. THE UK CABINET COUNTER FRAUD TASKFORCE⁶⁵

The UK National Fraud Authority (NFA) estimates that fraud alone costs the UK public sector around £21 billion a year. That is 55 percent of the nation's total fraud loss. The bulk of it is due to fraud against the tax and benefits systems but the Government is also losing significant sums to procurement fraud and grant fraud.

The Taskforce on Fraud, Error and Debt was established in late 2010 to create a high-level, cross-Whitehall group to address the enormous level of unacceptable losses. The attack on fraud forms one of the cornerstones of the UK Government's efficiency and reform agenda. After the formation of the Coalition in May 2010, the Minister for the Cabinet Office established the Efficiency and Reform Group (ERG), in order to support departments' efforts to reduce waste and spending in a coordinated approach. The ERG's focus includes procurement, ICT, property and suppliers, alongside fraud. All have a critical role to play in driving efficiency, with fraud potentially being one of the biggest contributors to removing wasteful government expenditure.

In their interim report, published in June 2011, the Taskforce has agreed four priorities for tackling public sector fraud: i) Collaboration – silos must be removed; all parts of the public sector must work together by: sharing intelligence on fraudsters; developing cross-cutting capabilities; initiating joint projects using data analytics; and ensuring we jointly procure data analytics to drive down costs; iii) Assessment of risk and measurement of losses – fraud risk must be assessed before projects and programmes are under way. Losses should also be recorded and reported via the quar-

terly data summary; iii) Prevention – investment and resource should go into prevention, not just detection and punishment. When vulnerabilities are detected as part of risk assessment, they should be designed out; and, iv) Zero tolerance – there is no acceptable level of fraud.

Taken together, these priorities will enable the UK Government not only to prevent fraud but also to detect, deter, correct and punish offenders.

II. OVERSEEING G2B PROGRAMS– THE US DEPARTMENT OF NAVY PURCHASE CARD PROGRAM AND THE PROGRAM AUDIT TOOL (PAT)⁶⁶

As the US Department of Defense purchase card program grew significantly, one of the largest programs within its portfolio -- Department of Navy's – expanded to over 45,000 purchase accounts. With greater card usage came greater risks and internal control challenges. To reduce and prevent fraud, waste, abuse, or loss of assets, the Department of Navy, in partnership with a global commercial bank, developed an oversight tool, known as the Program Audit Tool (PAT).

The PAT is a comprehensive reporting and data-mining solution that provides online access to consolidated command, regional and specific unit purchase card program information to help program administrators establish a systematic, documented procedure for monitoring monthly card usage. This automated tool empowers approvers to uncover possible exceptions quickly and easily, minimizing the risk of misuse by ensuring that cardholders are adhering to Department of Navy's guidelines and policies. Based on criteria defined by program management and audit specialists,

⁶⁵ Source: UK Cabinet Office, "Eliminating Public Sector Fraud. The Counter Fraud Taskforce Interim Report".

⁶⁶ Contribution made by Citigroup.

PAT searches card transactions automatically, flagging exceptions. Customizable parameters can be tailored based on the specific mission or activities of the unit and can include pre-defined timeframes and specific thresholds such as merchant category codes and dollar amounts. The program administrator can easily adjust criteria at any time, deleting filters, refining existing rules or creating new ones.

Further, PAT automatically generates a consolidated report for each billing cycle, enabling review of all questionable transactions. Upon completion, it sends e-mail notifications with the progress and results of individual reviews. It allows program administrators to review their entire portfolio of accounts and view specific transactions as needed, and also performs automatic assessments of the effectiveness of internal controls and disciplinary action, ensuring the program is functioning successfully. As an added benefit, PAT automatically produces reports for senior management review. These reports provide a program health assessment, summary of accounts and personnel, as well as purchases.

The PAT helped improve the Department of Navy's ability to monitor, detect, and take action on card misuse and fraud. The PAT has directly addressed the Department of Navy's key internal control problems, standardized their audit process across all units and improved their overall ability to prevent fraud and misuse in their purchase card program.

III. INTEGRATED SOLUTIONS TO SUPPORT PUBLIC SECTOR PROCUREMENT ⁶⁷

Payment service providers are integrating payment, data and reporting solutions to assist governments in better controlling and auditing purchases and the associated payments throughout the procure-to-pay process. The chart below illustrates the potential benefits of an integrated solution of this kind.

⁶⁷ Source: adapted from "Practical Guide to Control and Compliance in Commercial Card Programs", Visa Inc., 2007.

Procure-to-Pay Stage	Benefits of using a solution integrating payments, data and reporting
Sourcing	Improves transparency of the procurement process as it allows visibility into vendor/supplier adherence to contract terms with the government agency
Order Placement	Enforces government procurement policies at point of purchase through the use of spending limit and spend type controls on a card-by-card basis -each program having separate control mechanism
Payment and Settlement	Eliminates manual entry of invoice data as card statements are received and reviewed electronically and issuers provide regular, customized electronic reporting to the agencies/budget institutions on spending information by program and at account level
Reconciliation	Provides detailed "fingerprints" at each step of the transaction, from purchase to approval to reconciliation; and, automatically allocates the transactions to general ledger codes and cost centers to reduce time and any coding errors (straight through processing)
Control and Audit	Increases visibility into the overall spending patterns with transaction data near real time; and, establishes automated triggers to notify program administrators of any fraud or abuse
Reporting	Integrates detailed data into general ledger electronically; and, creates transaction level data and reports that allow for more accurate program level reporting

ANNEX E: CASE STUDY – IMPROVING FINANCIAL INCLUSION THROUGH GOVERNMENT PAYMENT PROGRAMS: THE CASE OF SOUTH AFRICA⁶⁸

In 2005, approximately 36 percent of the recipients of social transfers made by the South African Social Security Agency (SASSA) were banked. For its key programs, SASSA does not use cash any longer and instead makes the funds available to beneficiaries via some specific payment card products and also through mainstream bank accounts. As a result, by 2009 SASSA had seen a 62 percent drop in the cost of delivering social transfers.⁶⁹

In 2011, nearly 60 percent of all beneficiaries received their grants through mainstream bank accounts. The use of mainstream bank accounts in lieu of specific payment products with limited functionality has been instrumental to improve the population's access not only to payment accounts but to other financial services as well. SASSA also pays a fee that is 54 percent lower (US\$4.46 compared to US\$2.03) for a recipient with a mainstream financial account.

The most popular product of this kind is the *Sekulula* debit card account, which is issued by ABSA Bank. The product is targeted at the needs of social grant recipients in South Africa. However, ABSA also cross-sells other financial services such as loans and life insurance to its client base, including social grant recipients.

Among other features, the *Sekulula* account requires no minimum monthly balance. Likewise, there are no monthly account management fees. The amount normally transferred into these accounts each month

is equivalent to about US\$148, and the SASSA pays the bank about US\$1.50 a month per account. For this amount, *Sekulula* cardholders can make two free withdrawals per month at proprietary ATMs. *Sekulula* cards can also be used at any other bank ATMs for a fee or at any POS terminal where Visa cards are accepted. South Africa also offers recipients an opt-out option whereby any recipient may nominate an account at any bank into which to be paid rather than be paid by the contracted payment provider in each province. Once the recipient makes this election, SASSA makes an electronic transfer each month to this account at minimal cost to the agency.⁷⁰ The recipient then incurs all costs associated with using the account (which may be free in the case of basic bank accounts up to a set limit of transactions), and the bank in general receives no fee from the government. If recipients do not exercise this election, they are required to enroll with the payment provider appointed in their province. The *Sekulula* account is used as default option in certain provinces.

⁶⁸ This annex draws extensively from Bold C, D. Porteous and S. Rotman, "Social Cash Transfers and Financial Inclusion: Evidence from Four Countries", CGAP Focus Note 77, Washington, 2012.

⁶⁹ Source: Pickens, Porteous, and Rotman 2009.

⁷⁰ The cost is just the bulk electronic transfer of 10 cents. But if SASSA receives reports for reconciliation, benchmark is \$2.03.

ANNEX F: AN ANALYTICAL FRAMEWORK FOR THE TREASURY FUNCTION⁷¹

When reviewing treasury processes with a view to identifying improvement opportunities, it might be useful considering the whole treasury function as a value chain, or, more precisely, as a value system structured in different processes and activities. This approach enables the proper identification of all the links and correlations among different actors, activities and outputs.

The next step is to design a high-level analytical framework that addresses the major functional components of the whole system. Chart 1 provides a list of activities and a brief description of the functional processes and information flows associated with the Treasury system, moving from general (first level) to more specific (second and third levels). The first level or more general level distinguishes between the general and operational frameworks. The second level identifies broad areas such as the legal framework, technology, payments or collections sectors, accounting, etc. The third level examines the more specific activity which, as a rule, should be performed by a single actor. The description column provides a detailed definition of each activity listed in the third column, outlining the existing correlation between different processes.

The proposed model aims at focusing the attention of reformers on the processes – in particular in contexts where the roles of the different actors or the stages of the processes are not clearly defined – in order to understand whether the current treasury system is appropriate or if restructuring is needed. The model also highlights the effects of the legal and institutional frameworks on the design of a treasury system.

⁷¹ Contribution made by Banca d'Italia.

CHART 1: THE “VALUE CHAIN” APPROACH FOR GOVERNMENT PAYMENTS

First Level	Second level	Third level	Description
General Framework	Legal Framework	Form of Government	The form of Government, the public sector perimeter, the financial relationships between different levels of government may strongly affect the treasury system and government payments. Treasury system reform projects need to cope with different factors such as: the overall general government financial model (centralized/decentralized); the fiscal autonomy of local governments, social security and health institutions, independent agencies and other public entities; the way financial relationships between central government and other public administrations affect the Treasury Single Account architecture.
		Government payments regulation	In some countries government payments may be regulated by specific legislation, with ad hoc procedures and standards. It is very important to ascertain if specific regulation of government payments actually represents a burden or an opportunity for reform projects.
		Distributed transaction processing	The technological architecture required to implement the information systems follows from the functional process and the organizational model adopted. The distributed transaction processing model requires facilities for transaction processing, generating, storing and processing data at every organizational level. The Centralized Transaction Processing requires just one centralized technology platform, where the main application software and associated data-bases reside at a central site. In this case it is possible to choose between a single or a multi tier architecture.
	Payments	Centralized transaction processing	
		Payments initiation	The payment process is a complex procedure. It is very important to examine the single steps of the overall process, from the legal commitment (which can often come from the budget law) to the payment execution. It is also necessary to identify each actor involved as well as each activity, as the spending request, the validation process (checking the appropriateness of the expenditure and the availability of budget spending unit), the registration of the payment order in the system and, finally, the execution. It is also important to identify all the spending units and how much the spending decision can be decentralized in the system.
Operational Framework	Receipts	Payments execution	
		Decentralized Officials payments	
	Treasury Single Account architecture and scope	Collection of taxes and other State Budget revenues	The collection of Government receipts can be made through different channels and with different payment instruments. The banking system usually has a strong role but in some cases the Central Bank acts as "collector of last resort". Ad hoc procedures and instruments can be put in place in order to help the channelling of information and data to the Governmental Agency supervising revenues. It is also important to define the extent of use of standardized payment instruments (commodification) in order to check how open the government collection system is to other payment institutions.
		Supervision and management of collections	The Governmental Agency (or Department) supervising and managing the collection process may influence the development of procedures. In some countries Revenue Agencies can build up huge data-base and route information to other Departments. It is important to describe the role and functions of the Revenue Agency in the overall framework.
	Liquidity Management	Holding Treasury and other Central Administrations accounts	It is necessary to draw the actual perimeter of the TSA with respect to the role of local Governments' and other public entities' accounts in the TSA general ledger. A system where local Governments steadily hold cash balances at special accounts at the Central Bank may require different operational arrangements compared to a zero-balance accounts system. It is also important to define how local Governments' treasurers operate on these accounts.
Treasury liquidity forecasting		Treasury liquidity forecasting is a very significant activity both for monetary policy issues and for cash and debt management. In those countries where General Government cash flows are consolidated in the TSA, this activity also supports general government finance monitoring. Forecasting activity needs a lot of information from the General Accounting Office and other independent spending units as well as from the Revenue Agency. It is important to identify the different roles and responsibilities played by the Central Bank (involved for monetary policy) the Ministry of Finance and other independent Departments or Agencies.	
		Debt management	A central bank may have an important role both in cash and in debt management, acting as fiscal agent and financial advisor to the Ministry of Finance or to Debt and Cash management Agencies.
		Cash management	
	General Government Accounting and Statistics	General Government financial accounts	
		General Government non-financial accounts (cash basis)	The treasury system usually provides the main input to periodic fiscal reports that give a consolidated picture of all receipts and expenditures and progress against budget targets. For those reports to be comprehensive, all items of receipts and expenditures need to be captured. It is important to describe the role the treasury operations system plays in the production of both cash and on an accrual basis statistics and to outline the role of an integrated information system.
		General Government non-financial accounts (accrual basis)	

ANNEX G: GOVERNMENT PAYMENTS QUESTIONNAIRE

The following questionnaire is used as a reference for the “Questionnaire for Collecting Information to Depict the Situation of Payment and Securities Settlement Systems Worldwide” in the context of the World Bank bi-annual Global Payment Systems Survey.

A. Government transfers and central treasury system

1. What is the general model for government banking at federal level?
2. What is the general model for government banking at state/local level?
3. Is there a fully functioning central treasury system and a treasury single account?
4. What is the operational relationship between the central bank and the national treasury?
5. Describe the process of budgetary transfers between ministries and departments?
6. Which of these factors you consider as obstacles in efficient public finance management?

	Major concern	Minor concern	Not a concern
Technical Problems			
Organization of TSA			
Implementation of IFMIS			
Other technical problems			
Procedural Problems			
Lack of automation			
Procedural clarity			
Documentation or other issues			

B. Government expenditures

7. How is government procurement handled? Which ministry is responsible?
8. Are there clear guidelines on the procurement procedures? Are they publicly available?
9. Are there any special programs in use: p-card, preferred vendor, etc?
10. What are the major obstacles in efficient government procurement in your view?
11. Are there any social benefit payment programs? Please describe.
12. How are the entitlements and identifications handled?
13. Are there any new or planned payment instruments that are being used for these programs?
14. What are the major obstacles in efficient benefit disbursements in your view?

C. Government collections

15. How do taxes/dues usually get paid to the government?
16. Are there electronic channels available for citizens to pay dues to government?
17. How important is revenue leak and what measures are being taken to stop it?
18. What are the major obstacles in efficient revenue management in your view?

D. Details of government payment programs

19. Please select the most appropriate box below and provide actual amount, where applicable.

	Mainly cash	Mainly cheques	Mainly electronic
Government to person payments			
Public sector salaries			
Pensions and transfer payments			
Cash transfers / social benefits			
Person to government payments			
Taxes			
Utility payments			
Payment for services, etc.			
Government to business payments			
Procurement of goods/services			
Tax refunds			
Business to government payments			
Taxes			
Utilities			
Benefits transfers			

20. Are there plans to migrate to electronic payments? If payments are handled mainly through cash.

E. Legal and regulatory

21. What legal provisions cover payment and settlement systems in the country?
22. What legal provisions cover electronic payments in the country? Please specify the laws.
23. In your opinion are evident loopholes in legislation or regulations for electronic payments?
24. Are non bank payment services providers required to register/get a license?
25. Who regulates new payment instruments in the market (such as mobile payments)?
26. Are electronic payment services providers subject to AML/CFT regulations?
27. Who oversees and protects consumer rights (Ombudsman, agencies, etc.)?

F. Payment infrastructure

28. What is the general level of communication infrastructure in the country?
29. What is the general level of development of retail payments in the country?
30. What is the general consumer adoption of retail payment instruments?
31. Please detail the prevalence and use of the following, if present:

Payment infrastructure	Prevalence and use
RTGS systems	
ACH systems	
ATMs	
POS	

32. Are various retail payment instruments in the country generally interoperable?
33. What are the electronic payments instruments currently in use by the government?
34. Are there any major new initiatives planned or underway for government payments?
35. What has been your experience in implementing such programs?
36. What is the general level of automation/batch processing of government payments?

G. Risk management

37. Is there regular monitoring and auditing of government payment programs?
38. What are the targets to maintain service/uptime for government payment programs?
39. Is there proper documentation on operational procedures such as backup and recovery?
40. Does the government have a strategic contingency or business continuity plan?

H. Market structure

41. Can all banks and non-bank financial institutions access core payment infrastructure?
42. Are there any regulations concerning pricing models for payment instruments?
43. Who monitors oversight of aspects related to anti-competitive behaviour?

I. Governance and transparency

44. Do you believe that there is clarity of roles and responsibilities within various agencies?
45. Does the government publish information debt, financial assets and other transactions?

J. Cooperation and partnership

- 46. Are there existing memoranda of understanding between partner government agencies?
- 47. Are there payment industry alliances? What is the government's partnership with them?

K. Financial inclusion

- 48. Approximately what percent of the population is banked or has access to financial services?
- 49. Does the government have a strategic plan for increasing coverage of financial services?
- 50. What role did payment instruments play in the government's planning for financial inclusion?

ANNEX H: THE 2011 GEAR STUDY⁷²

The Government E-Payments Adoption Ranking (GEAR) study aims at measuring the extent to which countries provide key government payment services through electronic platforms (such as the Internet and mobile-phone networks) and the underlying factors that affect government e-payments adoption.

In the 2011 GEAR study, the Economist Intelligence Unit conducted online research to test 17 common transactions between citizens, businesses and their governments in 62 countries, including tax payments and refunds, automotive costs, social-welfare benefits, registration of businesses and government procurement, to evaluate access to e-payment services. Data on the countries' payments infrastructure, and social, economic and policy context was also included. The results of this study (i.e. adoption scores and rankings) can be used by country authorities for benchmarking purposes. Alternatively, authorities may wish to revise the study's methodology to develop a mechanism to measure internal progress over time. In this last regard, the indicators underlying adoption scores and the ranking methodology are described in Box 8.

⁷² Source: "2011 Government E-Payments Adoption Ranking", a global index and benchmarking study by the Economist Intelligence Unit, sponsored by Visa Inc., March 2012. Available at www.visa.com/gear.

BOX 8: INDICATORS USED IN THE 2011 GEAR STUDY

The study evaluates countries across 37 indicators grouped into seven categories. Each category score is calculated from the weighted average of underlying indicators while the overall score is a weighted average of the category scores; each category is given an equal weight. The qualitative indicators are measured on a scale of 0 to 4, where 4=most favorable conditions, and are normalized on a scale of 0-100, where 100=most favorable. Quantitative indicators (which are measured by a number) are also normalized on a scale of 0-100.

The complete list of indicators is shown below:

Scoring scheme

1 CITIZEN-TO-GOVERNMENT (C2G)	Rating 0-100 (100=best)
1.1 Income tax payments	Rating 0-4 (4=best)
1.2 Social security contributions	Rating 0-4 (4=best)
1.3 Obtaining/paying for an ID card	Rating 0-4 (4=best)
1.4 Automotive costs: tolls and fines	Rating 0-4 (4=best)
1.5 Public transit payments	Rating 0-4 (4=best)
2 GOVERNMENT-TO-CITIZEN (G2C)	Rating 0-100 (100=best)
2.1 Income tax refunds	Rating 0-4 (4=best)
2.2 Social security benefits	Rating 0-4 (4=best)
2.3 Unemployment, workers' comp and welfare benefits	Rating 0-4 (4=best)
2.4 Government health benefits	Rating 0-4 (4=best)
3 BUSINESS-TO-GOVERNMENT (B2G)	Rating 0-100 (100=best)
3.1 Income tax payments	Rating 0-4 (4=best)
3.2 VAT/sales tax payments	Rating 0-4 (4=best)
3.3 Social security and other contributions	Rating 0-4 (4=best)
3.4 Company registration and payment of fees	Rating 0-4 (4=best)
4 GOVERNMENT-TO-BUSINESS (G2B)	Rating 0-100 (100=best)
4.1 Income tax refunds	Rating 0-4 (4=best)
4.2 VAT/sales tax refunds	Rating 0-4 (4=best)
4.3 Payments for goods and services	Rating 0-4 (4=best)
4.4 Disbursement of loans	Rating 0-4 (4=best)
5 INFRASTRUCTURE	Rating 0-100 (100=best)
5.1 Number of ATMs per 10,000 people	per 10,000 people
5.2 Number of POS terminals per 10,000 people	per 10,000 people
5.3 Diffusion of broadband	per 100 people
5.4 Public-access terminals per capita	Rating 0-4 (4=best)
5.5 Mobile subscriptions per 100 people	per 100 people
5.6 Level of development of stored value cards	Rating 0-4 (4=best)
5.7 Level of development of 3G and other technologies	Rating 0-4 (4=best)
5.8 Level of development of contactless and mobile payments	Rating 0-4 (4=best)
6 SOCIAL AND ECONOMIC CONTEXT	Rating 0-100 (100=best)
6.1 Literacy level	%
6.2 Educational level	Years
6.3 Internet/technology savviness	Rating 0-4 (4=best)
6.4 Percentage of population using banks/other financial institutions	Rating 0-4 (4=best)
6.5 Percentage of businesses using banks/other financial institutions	Rating 0-4 (4=best)
6.6 Provision of financial education	Rating 0-4 (4=best)
6.7 Proportion of businesses placing orders via the Internet	Rating 0-4 (4=best)
6.8 Proportion of consumer orders of goods via the Internet	%
6.9 Percentage of population with payment card(s)	Rating 0-4 (4=best)
7 POLICY CONTEXT	Rating 0-100 (100=best)
7.1 Government commitment to e-payment security	Rating 0-4 (4=best)
7.2 Government commitment to integrating the informal economy	Rating 0-4 (4=best)
7.3 Government commitment to the Financial Action Task Force (FATF)	Rating 0-4 (4=best)

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ANNEX J: GLOSSARY⁷³

Agent*: a contractual relationship in which one party, the agent, acts on behalf of another party, the principal.

Automated Clearinghouse: an electronic clearing system in which payment orders are exchanged among financial institutions, primarily via magnetic media or telecommunications networks, and handled by a data processing centre.

Business-to-Government Payments*: payments made by businesses to the government, normally in connection with taxes, duties or the payment for goods or services provided by the government.

Centralized Treasury System*: an operational model by which the processes related to government payments and collections are handled in a centralized manner, typically by the national treasury. The centralized system normally comprises the national government, and in some cases also one or more levels of sub-national governments.

Chip Card: also known as an IC (integrated circuit) card. A card containing one or more computer chips or integrated circuits for identification, data storage or special purpose processing used to validate personal identification numbers (PINs), authorize purchases, verify account balances and store personal records. In some cases, the memory in the card is updated every time the card is used (e.g. an account balance is updated).

Credit Card: a card indicating that the holder has been granted a line of credit. It enables the holder to make purchases and/or withdraw cash up to a prearranged ceiling; the credit granted can be settled in full by the end of a specified period or can be settled in part, with the balance taken as extended credit. Interest is charged on the amount of any extended credit and the holder is sometimes charged an annual fee.

Debit Card: card enabling the holder to have his purchases directly charged to funds on his account at a deposit-taking institution (may sometimes be combined with another function e.g. that of a cash card or cheque guarantee card).

Direct Participant: a participant in an interbank funds transfer system who is responsible to the settlement agent (or to all other direct participants) for the settlement of its own payments, those of its customers and those of the indirect participants on whose behalf it is settling.

Electronic Money: value stored electronically in a device such as a chip card or a hard drive in a personal computer.

⁷³ Definitions for payment system terms were taken directly from the CPSS "A Glossary of Terms used in Payment and Settlement Systems", BIS, 2003. All other terms, marked with "*", were defined by the IAG Secretariat.

Final Transfer: an irrevocable and unconditional transfer which effects a discharge of the obligation to make the transfer. The terms “delivery” and “payment” are each defined as a final transfer.

Financial Inclusion*: The availability of basic financial products to meet the payment, savings, credit, insurance and investment needs of underrepresented segments of the society, at a reasonable cost.

Funds Transfer System: a formal arrangement, based on private contract or statute law, with multiple membership, common rules and standardized arrangements, for the transmission and settlement of money obligations arising between the members.

Government Collections*: Incoming payments to the government, normally associated with taxes, duties and the provision of certain public services.

Government Expenditures*: Outgoing payments from the government.

Government Payment Program*: a set of rules and operational mechanisms to enable the transfer of money from/to the government. Typically, a variety of government payment programs are implemented to address different needs.

Government-to-Business payments*: Payments made from the government to businesses, normally in association with procurement of goods and services, expenses of public sector officers, tax refunds, etc.

Government-to-Person payments*: Payments made from the government to individuals. The most common types of G2P payments are the payment of salaries for public sector employees, the disbursement of subsidies and similar cash-transfer programs.

Indirect Participant: refers to a funds or securities transfer system in which there is a tiering arrangement. Indirect participants are distinguished from direct participants by their inability to perform some of the system activities (e.g. input of transfer orders, settlement) performed by direct participants. Indirect participants, therefore, require the services of direct participants to perform those activities on their behalf.

Interbank Funds Transfer System: a funds transfer system in which most (or all) direct participants are financial institutions, particularly banks and other credit institutions.

Interoperability: a situation in which payment instruments belonging to a given scheme may be used in other countries and in systems installed by other schemes. Interoperability requires technical compatibility between systems, but can only take effect where commercial agreements have been concluded between the schemes concerned.

Intra-government Transfers*: Budgetary transfers to the various government agencies or departments.

Issuer: in a stored-value or similar prepaid electronic money system, the entity which receives payment in exchange for value distributed in the system and which is obligated to pay or redeem transactions or balances presented to it.

Legal Risk: the risk of loss because of the unexpected application of a law or regulation or because a contract cannot be enforced.

Operational Risk: the risk that deficiencies in information systems or internal controls could result in unexpected losses.

Payment Instrument: any instrument enabling the holder/user to transfer funds.

Payment Order: an order or message requesting the transfer of funds (in the form of a monetary claim on a party) to the order of the payee. The order may relate either to a credit transfer or to a debit transfer. Also called payment instruction.

Payment System: a payment system consists of a set of instruments, banking procedures and, typically, interbank funds transfer systems that ensure the circulation of money.

Person-to-government Payments*: payments made by individuals to the government, normally in connection with taxes, duties or the payment for goods and services provided by the government.

Point-of-Sale or POS: this term refers to the use of payment cards at a retail location (point of sale). The payment information is captured either by paper vouchers or by electronic terminals, which in some cases are designed also to transmit the information. Where this is so, the arrangement may be referred to as “electronic funds transfer at the point of sale”.

Prepaid card: a card on which value is stored, and for which the holder has paid the issuer in advance.

Real-time gross settlement: the continuous (real-time) settlement of funds or securities transfers individually on an order by order basis (without netting).

Stored-value Card: a prepaid card in which the record of funds can be increased as well as decreased. Also called an electronic purse.

Straight-Through Processing: the capture of trade details directly from front-end trading systems and complete automated processing of confirmations and settlement instructions without the need for rekeying or reformatting data.

Treasury Single Account*: can be either a single bank account or a set of linked accounts through the government transacts all its receipts and payments. Under some scenarios, linked accounts can yield a similar final result to that of a single bank account given the fungible nature of cash.

ANNEX K: MEMBERS OF THE INTERNATIONAL ADVISORY GROUP

The table below shows the composition of the IAG, which includes representatives from countries and institutions with relevant experience in implementing government payment programs. The IAG is chaired by Massimo Cirasino, Head of the Payment Systems Development Group of the World Bank. The Secretariat for this report included Hemant Bajjal, Jose Antonio Garcia and Rahul Kitchlu, all from the World Bank.

The IAG has an open membership structure. Members that participated in one or more of the group's technical meetings of the phase consisting in the preparation of the General Guidelines are the following:

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Country	Institution	Representatives
Azerbaijan	National Bank of Azerbaijan	Kamala Gurbanova
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	Ministry of Social Development	Anderson Brandao
	National Treasury	Leonardo Rodrigo Ferreira
Italy	Banca d'Italia	Carlo Maria Arpaia, Bruno Doffizi
Mexico	Banco de Mexico	Ricardo Medina Alvarez, Alejandro de los Santos
	National Treasury	Irene Espinosa Cantellano, Norma Espinosa
The Philippines	Bangko Sentral ng Pilipinas	Bella Santos
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	Ministry of Finance	Mahmut Varol
	National Treasury	Secil Cicek, Burak Deste
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International Monetary Fund		Xavier Rame, Christine Sampic
Inter American Development Bank		Natasha Bajuk
World Bank Group		Representatives from CGAP, IFC and the Social Safety Net and ICT Networks of the World Bank
3. Non Government Organizations and Private Sector Institutions		
Alliance for Financial Inclusion		Alfred Hannig, Raadhika Sihin
ESBG-WSBI		Norbert Bielefeld
MasterCard		Pilar Ramos, Mamta Rodrigues and Jannie Chang
SWIFT		Jim Wills
Visa		Salvador Perez-Galindo, Paveena Singh

