The World Bank
Payment Systems Development Group

INTERNATIONAL ADVISORY GROUP FOR GOVERNMENT PAYMENTS

General Guidelines

FOR THE DEVELOPMENT OF GOVERNMENT PAYMENT PROGRAMS

July 2011

FOREWORD

In recent years, the importance of government payments as a key component of the national payment systems has been much discussed. However, 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 sets out general guidelines designed to assist countries in improving their national payment systems.

The report has been prepared for the International Advisory Group (IAG) for Government Payments under the auspices of the World Bank. The World Bank thanks the secretariat and the members of the IAG and its chairman, Massimo Cirasino and the members of the Payment Systems Development Group (PSDG) of the World Bank for their excellent work in preparing this report.

Note: include updated message.

Janamitra Devan
Vice President
Finance and Private Sector Division
The World Bank

ACKNOWLEDGEMENT

The ideas presented in this document are combined work of many contributing authors and is compiled by the Secretariat of the International Advisory Group (IAG) for Government Payments and the members of the Payment Systems Development Group (PSDG) of the World Bank.

Primary authors of this report are: Hemant Baijal and Rahul Kitchlu. The authors are grateful to many colleagues at the World Bank, other multilateral agencies, national authorities and private sector agencies for their assistance and support in the creation of this report.

Note: include complete list of names.

INTERNATIONAL ADVISORY GROUP FOR GOVERNMENT PAYMENTS

GENERAL GUIDELINES

CONTENTS

List of Boxes

INTERNATIONAL ADVISORY GROUP FOR GOVERNMENT PAYMENTS GENERAL GUIDELINES FOR THE DEVELOPMENT OF GOVERNMENT PAYMENT PROGRAMS

1 Background and introduction

1.1 Executive Summary

1. Countries, regardless of their stage of economic development, transfer money between various government agencies and make and collect payments to and from citizens and businesses. In most cases, these government payments cover a wide range of payments activities, and can be significant in terms of volume especially when compared to the country's GDP.

2. Government payments predominantly utilize the underlying retail payments infrastructure in the country and can facilitate economic growth and innovation in the national payments system as well as enhance public policy goals such as efficiency, transparency, security of payments, financial inclusion, etc.

3. Broadly defined, government payments include three key categories of payments:

(i) *Government transfers* or government to government (G2G) payments which involves transfers from one government agency to another for budgetary or operational purposes through central treasury systems;

(ii) *Government expenditures* in the form of cash transfers, salaries and social benefits payments made by a government to a person (G2P) payments, and, expenditures made by government agencies for procurement and other business related expenses (G2B) payments; and

(iii) *Government collections* are revenues, fees, duties and other dues collected by a government from persons (P2G) or businesses (B2G).

4. Government payments involve all national and sub-national (state, county, etc.) level ministries or agencies; commercial banks, payment networks, third party processors and other non-bank financial institutions as well as citizens and businesses. Given the nature of government payments, their importance cannot be underestimated. However, traditionally, many such payment programs have been based on the use of cash or paper based payment instruments that are generally more inefficient in terms of processing time, cost effectiveness, transparency, etc.

5. Modernization of government payments through implementation of electronic payment instruments and reform of associated enabling environment can serve many important public policy goals. These changes can increase efficiency, transparency, convenience, and security of government payments by reducing the transaction processing time and costs associated with payments.

6. This also serves a broader objective of efficient public finance management, strengthening the domestic retail payments infrastructure while reducing risk factors, etc. Further, such improvements in the payments industry improve access and coverage and promote financial inclusion of underserved segments.

7. However, there are many challenges that authorities face in achieving such reforms. There are challenges associated with reforming the legal and regulatory framework required to support payment systems changes, the corresponding infrastructure and technology needs much attention, there need to be changes put in place for improved process automation and higher standards of governance and transparency while lowering risk, there also needs to be a fair level of competition in the market with fostering cooperation, and not to mention the objective of increased financial inclusion needs to be maintained.

8. In order to assist the authorities taking on the challenges of reforming government payments, this report suggests some General Guidelines (see box 1 below) that are meant to be adapted and refined for individual cases and are not meant to be prescriptive.

Box 1: General Guidelines for Government Payments

General Guideline 1: legal and regulatory environment. Government payments should be supported by a sound, predictable, non-discriminatory and proportionate legal and regulatory framework in relevant jurisdictions.

- Sub-Guideline 1.1: validity of electronic payments. Validity of electronic payments should be legally recognized.
- Sub-Guideline 1.2: role of the central bank. Central bank should play a key role in promoting reforms of government payments.
- Sub-Guideline 1.3: sound regulations for payment instruments. Sound regulations for new and innovating retail payment instruments should be enacted.
- Sub-Guideline 1.4: integrity and certainty of payments. Appropriate legal and regulatory framework that promotes integrity and certainty of payments and minimizes fraud and risk should be enacted.
- Sub-Guideline 1.5: sound public finance management. Legal and regulatory requirements for efficient public finance management as related to implementation of central treasury model should be implemented.
- Sub-Guideline 1.6: consumer protection. Government payment programs should incorporate adequate consumer protections including appropriate information disclosures and legal recourse.

General Guideline 2: payment systems infrastructure. Improvements to payment systems infrastructure that has the potential to increase the efficiency of government payment programs should be encouraged.

- Sub-Guideline 2.1: organization and implementation of treasury systems. Organization and implementation of central treasury systems should be carefully planned for efficiency in government transfers.
- Sub-Guideline 2.2: interoperability. Adoption of common standards for interoperability within the payment infrastructure should be promoted.
- Sub-Guideline 2.3: Automated and centralized account management. Automated and centralized account management systems should be implemented where appropriate.
- Sub-Guideline 2.4: use of bank and non-bank financial infrastructure. Using bank and non-bank financial services entities to provide payment services efficiently should be promoted.
- Sub-Guideline 2.5: payment process automation. Adequate levels of automation should be adopted for government payment programs.

General Guideline 3: risk management. Government payment programs should manage risk through comprehensive planning and monitoring.

General Guideline 4: market structure and competition. Competitive market conditions, including appropriate access to domestic payment infrastructures, should be fostered.

General Guideline 5: governance and transparency. Government payment programs should be transparent and accountable.

General Guideline 6: cooperation and partnership. Cooperative ecosystem within the government authorities and with those within the payment industry should be fostered.

General Guideline 7: financial inclusion. Government payment programs should incorporate adequate measures to promote financial inclusion.

Source: International Advisory Group for Government Payments, World Bank

9. Through implementation of comprehensive interventions, such as implementation of central treasury model via a treasury single account, improvements in retail payments infrastructure pertaining to government payments and focusing on changes in other enabling environments, authorities can achieve the desired goals related to government transactions.

1.2 Objectives and scope of this report

10. A large number of governments and payment service providers agree that there are currently no universally accepted guidelines that address comprehensively reform of government payments and provide authorities with an overarching framework for efficient implementation of such programs.

11. Guidelines are necessary, as opposed to principles or rules, as they provide governments with a broad-based framework for guiding implementations which are derived from existing international examples and good practices. Guidelines allow for some degree of coordination amongst various stakeholders in the payments value chain but at the same time allow flexibility in implementation approaches. They are also relevant as they provide provisional guidance to governments in an environment that is rapidly changing both in terms of payments technologies as well as government policies.

12. The objective of this report is to develop comprehensive guidelines of government payments that would provide guidance on the design and implementation of such programs including the role of public authorities and the private sector. This is particularly important in today's environment where financial stability, cost savings and access to finance, and consumer protection are top public policy goals influencing the design and delivery of government payment programs worldwide.

13. The guidelines are not intended to be prescriptive but rather to give provisional guidance so the stakeholders know the nature of uncertainties that prevail in efficient implementation of government programs and the challenges associated with them. The application of the guidelines should help to achieve the public policy objectives of having safe and efficient payment infrastructure in the country, which require the government payment systems to be connected, efficient, transparent, accessible and sound.

14. Furthermore, the government payments considered in the report focus mainly on the domestic government payments and not on international government payments (such as between national governments or between private/multilateral lenders and national governments for raising or servicing debt). For the purposes of the report, government payments are defined as domestic government-government, government-citizen and citizen-government payments, however, for completion, we do recognize the role of such overseas transactions.

15. From the point of view of making payments to or from the governments, a myriad of tools and technologies exist and continue to evolve. This report does not attempt to provide implementation advice based on any specific set of platforms but rather focuses on the underlying infrastructure and the flows (transfers, expenditures and collections) related to government payments.

16. This report is based on the belief that the best way to improve the overall efficiency of government payments is to modernize the underlying mechanisms for payments - in particular, to make technological improvements towards electronic payment systems in the core infrastructure as well as to make procedural improvements in the flow of payments to and from the government. Also, these modernizations will not be possible without sound legal underpinnings some form of regulatory reform, as well as convergence of multiple stake holders including various national and sub-national government authorities as well as private sector entities.

17. A modern and efficient government payment system should also assist in strengthening the core national payment infrastructure, in lowering the transaction costs of retail payments, in improving the service and accessibility of government programs, in greater efficiency of public finance management, and in improving accountability and openness of governments.

1.3 Objectives and scope of the International Advisory Group

18. The International Advisory Group (IAG), under the auspices of the World Bank, was convened with a central mandate to develop general guidelines for government payments that help countries implement safe and efficient government payment programs.

19. The objectives of the IAG were to lead an international, collaborative effort for development of such guidelines including tools and assessment methodologies for planning and implementation of reforms. IAG aimed to develop an evidence-based guidance framework for government payments that would provide guidance on the overall design and implementation of such reform programs.

20. The IAG recognized the need for harmonized efforts in order to define general guidelines that provide governments with a directional framework for efficient implementation of reforms of government payments. IAG's process of developing a set of guidelines and assessment tools and methodologies included the following:

- Analysis and synthesis of existing material, expertise and quantitative data to extrapolate a set of best practices for government payments.

- Executing multi-stakeholder consultations through various meetings that were held in a transparent and inclusive manner to build consensus and to ensure quality of the report.

- The members of the Secretariat were primary authors of this report (with input from experts from partner organizations), which was developed via periodic review and constant dialogue with the membership of the IAG.

- The Secretariat also utilized existing examples of successful implementations of government payment programs to develop case studies of good practice; some of these cases have been included in this report as boxes and annexes.

1.4 Structure of this report

21. The Section 2 of this report defines and describes the key types of government payments. This section also proposes a conceptual framework for government payments describing the central treasury model for government transfers, and the corresponding outflow and inflow for government expenditures and collections. This section also provides a description of the importance and relevance of government payments and highlights some recent survey data and recent trends.

22. Section 3 analyzes the key areas of challenge and uncertainty that contribute to prohibiting major reforms in the realm of government payments. The discussion covers challenges in areas related to enabling environment to payment systems infrastructure reform. The discussion covers broad range of topics that can hamper developments of efficient government payments.

23. Section 4 of the report emphases the public policy goals that are closely tied to the government payment programs. It discusses how multi-faceted objectives can be served by focusing on reforms in government payments. Especially, this section discusses the important role government payments can play in increasing financial inclusion.

24. Section 5 of the report sets out the General Guidelines in depth and describes areas of best practice and discusses process of reform of government payments. And, Section 6 discusses the formulation of an approach to implementing the General Guidelines including some tools and assessment methodologies. It is important to note that the guidance on implementation and associated tools and methodologies will be further refined and published in upcoming series of documents based on the experiences and feedback from the pilot programs that are planned as part of the next phase of developing the guidelines.

25. Finally, the report also includes a set of annexes that contain supplementary information, excerpts from important materials and useful link to further information on government payments.

2. A framework for government payments

26. Government payments are classified under three main types: intra-governmental transfers, expenditures, and collections. This section describes these types of payments in some detail and introduces a conceptual model for government payments. Furthermore, this section also highlights the importance of government payments and discusses some prevailing global trends in each of these categories.

2.1 Key definitions of government payments

Government transfers: government to government payments

27. Government to government (G2G) payments includes intra-governmental transfers from one government agency to another for budgetary or extra-budgetary purposes (see box 2). These departmental or accounting transfers are an important factor in efficient public finance management as well as in enabling and maintaining the day-to-day operations of the government. These types of payments can also include government debt servicing arrangements including domestic and international payment obligations. However, detailed discussion on government debt management is beyond the scope of this report and we will focus mainly on domestic payment transactions.

28. To improve efficiency of such payments, a central treasury system is a necessity in addition to adoption of other best practices for proper public financial management. A treasury system including a treasury single account offers several significant benefits in managing public monies, including, greater financial control, lower transaction cost, and improved monitoring for transparency and accountability.

Government expenditures: government to person/business payments

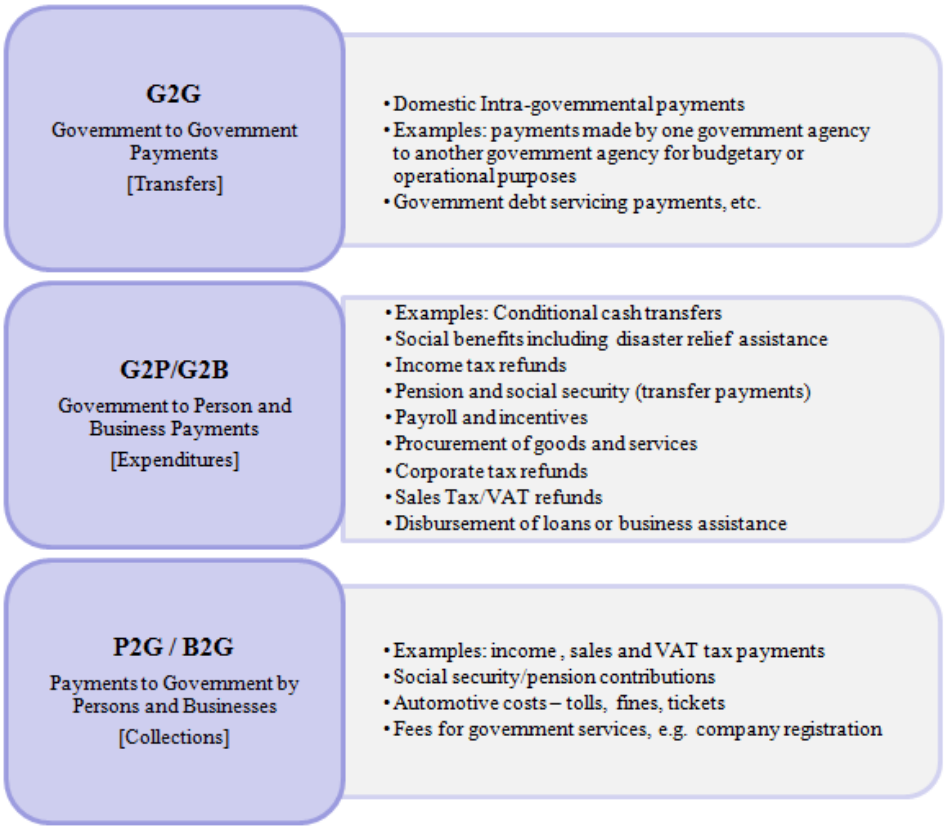
29. Government to person (G2P) payments includes payments made by governments to citizens for provision of social benefits, salaries, pensions and social security benefits, etc. These types of payments may also include payment of processing tax refunds, incentives, etc. Paper based payment instruments have dominated such payments, however, since the last 10-15 years, many governments are moving towards electronic payments instruments to reduce the costs, improve safety and provide access to finance for the underserved recipients.

30. Government to business (G2B) payments includes payments made by the government for procurement of goods and services. Such payments also include travel and miscellaneous expenses incurred by government employees on behalf of the government agency. While in most country environments such payments are still being made in cash, personal credit or debit cards where employees are reimbursed later, use of purchase orders, or paper cheques or vouchers; certain countries are moving towards the use of electronic funds transfer (EFT) and card based products for such expenditures. In environments where governments want to streamline administrative costs, seek better control and compliance with their procurements policies, such payment practices are becoming more common.

31. While there have been some positive developments in this area in developed countries, such as: introduction of card-based payment instruments (procurement cards, travel cards, fleet cards, etc.), overall, this area of government payments remains largely undeveloped.

32. In short, G2P/G2B payments are considered as expenditure related "outflow" or expenditure payments of the government. In most developing countries, reforming G2P/G2B payments not only requires a strong retail payments infrastructure but also a set of regulations and policies that allow governments to conduct business fairly and efficiently.

Box 2: Types of government payments



Source: World Bank

Government collections: person/business to government payments

33. Person to government (P2G) and business to government (B2G) payments include payments made by consumers and businesses to government or public sector organizations in the form of tax payments and payments for obtaining services from these agencies (utilities, licenses, permits, etc.). In typical cases, the most common forms of payments have included paper-based instruments (cash or cheques), however, some governments are now moving towards developing infrastructure to increase acceptance of electronic payments.

34. Such payments are considered as revenue related "inflow" or collections. Most governments prefer that revenues collected in the form of taxes, duties, fees, etc., are transferred to their central treasury account (if such an account exists in the country) during the same day.

2.2 A conceptual model for government payments

Government transfers and the role of the central treasury

35. Government banking arrangements are an important factor for efficient management and control of government's cash resources. Such banking arrangements should be designed to optimize the payment flows, to minimize the cost of government borrowing and to maximize the opportunity cost of cash resources. This requires ensuring that all cash received is available for carrying out government's expenditure programs and making payments in a timely fashion.

36. Many emerging market and low-income countries have fragmented systems for handling government receipts and payments. In these countries, the ministry of finance/treasury lacks a unified view and centralized control over government's cash resources. As a result, payments are delayed or mismanaged and at other times, the cash lies idle for extended periods in numerous bank accounts held by spending agencies while the government continues to borrow to execute its budget.

37. A central treasury system can establish a unified structure of government bank accounts via a treasury single account (TSA) to solve these problems and to improve cash management and control. It should, therefore, receive priority in any public financial management (PFM) reform agenda. A TSA also facilitates better fiscal and monetary policy coordination as well as better reconciliation of fiscal and banking data, which in turn improves the quality of fiscal information. Finally, the establishment of an effective TSA significantly reduces the debt servicing costs.

38. A TSA is a unified structure of government bank accounts that gives a consolidated view of government cash resources. Based on the principle of unity of cash and the unity of treasury, a TSA is a bank account or a set of linked accounts through which the government transacts all its receipts and payments. 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 cash in transaction specific bank accounts. This enables the treasury to delink management of cash from control at a transaction level. For it to be effective, TSA essentially should include the following main features:

- Government banking arrangements are unified to enable treasury/ministry of finance (MoF) to have oversight and a single view of government cash flows in and out of these bank accounts.

- Effective cash management requires an advanced payment and settlement system infrastructure (such as RTGS) with an integrated financial management information system (IFMIS) so that this information will be available in real time. As a minimum, complete updated balances should be available daily.

- All government agencies/line ministries operate under the oversight of the treasury/MoF.

- Consolidation of government cash resources should be comprehensive and include all government cash resources – budgetary and extra-budgetary.

- Sound legal basis to ensure robustness and stability of TSA is a precondition for effective functioning especially in country environments where autonomous nature of some government agencies can create obstacles to implementation of TSA.

39. The primary objective of a TSA is to ensure effective aggregate control over government cash balances. However, there are other benefits as well, such as: minimizing transaction costs during budget execution, notably by controlling the delay in the remittance of government revenues (both tax and nontax) by collecting banks, and making rapid payments of government expenses; facilitating reconciliation between banking and accounting data; efficient control and monitoring of funds allocated to various government agencies; and facilitating better coordination with the monetary policy implementation.

40. As the central bank acts as the fiscal agent of the government, the custody of the TSA in most countries is with the central bank, although in theory, the main account of a TSA system may also be held at a commercial bank. In such cases, commercial bank accounts must be cleared everyday and all government cash balances should be consolidated into a central account - the TSA main account - of the treasury at the central bank.

41. In designing the TSA, it should be noted that the TSA should cover all central government entities and their transactions (centralized model, as shown in box 3). These include accounts managed by social security funds and other trust funds, extra-budgetary funds (EBFs), and autonomous government entities, and loans from the multilateral institutions and donor aid resources.

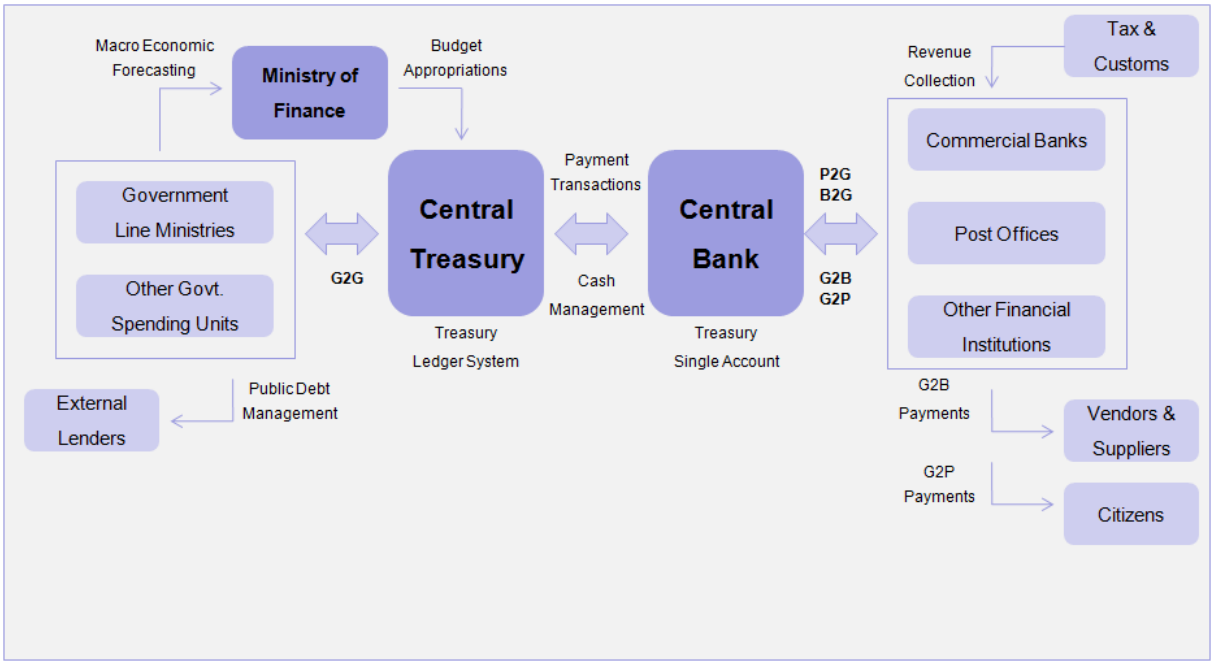
42. A TSA could also be extended, in theory at least, to include sub-national levels of government and other public institutions through the use of correspondent accounts (decentralized model). Even when the central TSA does not cover sub-national governments in a federal system, TSAs should be established at each sub-national government level.

43. The various types of functional accounts that are created in the TSA as part of the central treasury model such as TSA main account, TSA subsidiary accounts, transaction accounts and zero-balance accounts (ZBA), etc. can provide an effective way of managing public finances in a cost effective manner.

44. This integrated approach does not only improve the intra-government payment transaction processing but also improve overall public finance management through disbursement of budget appropriations, providing a real time and accurate measure of government’s cash positions, improving macro-economic forecasting as well as lowering the overall cost of borrowing for the government.

45. Regardless of their degree of development, countries should consider establishing a TSA through a central treasury model while taking into account the preconditions necessary for such models that reflect the unique circumstances present in the country.

Box 3: TSA and the central treasury model



Source: World Bank

Government expenditures and typical outflows

46. Outflow payments, or expenditures, are an important function of the government with the main objectives of an effective disbursement system being the ability to pay the government's obligations in a timely and cost-effective manner, and to reduce opportunities for fraud and theft.

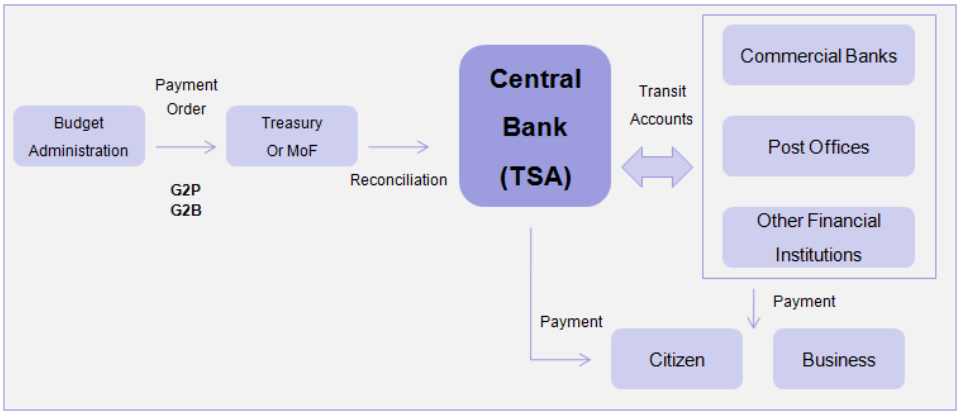
47. Manual or semi-automated treasury systems can imply slow payment processes. Many developing countries have very basic financial management systems and communication infrastructure, together with a manual or semi-automated (and often not integrated) treasury system and limited communication capabilities. In such countries, payment requests often go through regional or local treasury offices and are submitted for payment and settlement against the TSA. This results in slower payment processes than with fully automated systems.

48. A central treasury system that is computerized (such as an IFMIS) and an advanced communication infrastructure allow electronic fund transfers from the TSA to the recipient's account, eliminating payment delays and idle balances and thus reducing operational risks.

49. The objectives of the treasury when it comes to expenditure payments should be to eliminate or shorten any delay in payments. Expenditures typically include two key types of payments: government to person (G2P) payments and government to business (G2B) payments.

50. For G2P payments, good international practice has been to automate the payment processes, and adopt an electronic payment system, with direct payments to the bank account of the beneficiary or other types of payment instruments managed by the commercial banks such as prepaid cards, etc.

Box 4: Government expenditures



Source: World Bank

51. Many governments offer direct deposits (of salaries, pensions, etc.) to employees' and pensioners' accounts or submit these to a pooled account managed by a commercial bank or an eligible non-bank financial institution for payment through a prepaid account. This is efficient and less prone to fraud than other options, such as payments in cash or by cheque. Payment by cheque has advantages, but also important disadvantages.

52. Cheques provide a paper trail. However, they slow the speed of disbursements by payers, due to time delays between the issuance, encashment and clearing of a cheque, which also gives rise to significant cheque floats in some cases. Writing and delivering cheques is expensive and can introduce errors, creating the need for a separate reconciliation process, and affecting the effectiveness of the cash management system. Cheques can also be stolen or altered. This does not mean that electronic payment systems are not potential areas for fraud and do not require fraud prevention measures such as sound internal controls, passwords, restricted access, and restricted authorization to prevent access to fund transfer initiation systems.

53. Some countries have adopted the practice of making large or important payments through direct bank transfer (to the beneficiaries' accounts) by the treasury or as mentioned above through innovative products managed through prepaid accounts, whereas smaller payments are handled by cheques issued on zero-balance accounts in commercial banks, where they are settled against the TSA and reconciled. The method of direct bank transfer is often also used for payment of salaries and pensions and in a large number of countries, such accounts are linked to the salary card which is issued by the banks that maintain customer accounts. In such cases, the treasury agrees that a bank/financial institution deposit the funds directly into the bank accounts of an approved list of public employees (based on the payroll) and pensioners.

54. As noted above, the Treasury transfers the G2P payment obligations from the TSA main account to respective commercial banks using the RTGS or alternative interbank payment system. Simultaneously, the payment instructions for individual payment amounts are

generated by the Treasury or individual line agency through one of the IFMIS modules directly to the relevant commercial bank. Depending upon the payment mechanism established by the recipient or government agency, payments are made through one of the following mechanisms:

55. ACH Credit Transfers: in a typical automated clearing house (ACH) credit transaction, the payer is the government agency which is either the employer or the agency making a benefit payment, and the payee is the employee. The payee authorizes an employer to deposit his or her paycheck through direct deposit. The agency submits its direct deposit payroll ACH files to its financial institution, which then verifies the files and submits them through the corresponding ACH operator. The ACH operator routes the transaction to the payee's financial institution. The payee's financial institution makes the funds available to the payee by crediting his or her account.

56. Card Based G2P payments: other than direct deposit, the most common mechanism for payment of G2P benefits, salaries or pensions is through payment cards. These could be in the form of prepaid cards or salary/pension cards that are linked to bank accounts. In the case of the latter, financial institutions are required to open a corresponding bank account for the beneficiary and issue a payment card that functions like a debit card. In the case of the prepaid cards, the financial institution maintains a pooled account with various sub-accounts belonging to the recipients. Such products can be branded with an international payment network (Visa, MasterCard, etc.) or may be issued by a third party processor/financial institution on behalf of the government. In either case these work like debit cards and enable the recipients to use the product at both ATMs and EFT-POS.

Box 5: Russia universal electronic card

The federal program "Electronic Russia" has a strategic objective to develop and implement a universal and user-friendly electronic payment instrument for delivery of multiple social services (or benefits) and for storage of state informational within 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, and in particular, it regulates the issuance and maintenance of citizens' universal electronic cards (UEC).

The UEC will be given to every Russian citizen older than 14 years and will contain users' information in visual as well as electronic form. This information will be used for determining their rights/entitlements to receive government, municipal and other services. It will also be used to identify and authenticate the user within different operations that are executed electronically. The UEC will also contain essential passport related information for the individual. Single payment and service system will become a tool for the realization of legislation provisions concerning the universal electronic cards issuance and maintenance. The main idea of this system is to provide citizens with a wide range of electronic services within the whole Russian territory. Besides the possibility of using the UEC's payment application for government payment execution, single payment and service system will allow users to obtain: government and municipal services, including social assistance services; transport and medical services, in particular for groups entitled to special benefits; other organizations' services; financial services, including card payments.

Source: Central Bank of Russia and Federal Treasury of Russia

57. In a typical process for prepaid cards, the government agency will work the financial institution to establish the program; it may be benefits, payroll, pensions, etc. The financial institution is the issuer who manages card issuance and transaction processing. The issuer sets up the pooled account for the program (where the aggregate funds reside) and will create various sub-accounts belonging to beneficiaries. Through the TSA structure, a transfer is made to the pooled account at the issuer on the day payments are due. Depending upon the arrangement with the government, the issue transfers the funds to sub-accounts belonging to the beneficiaries.

58. G2B payments include procurement related expenses that government agencies make and business expenses incurred by government employees. A large majority of governments still use cash, cheques or bank transfers for conducting procurement related expenditures, however, through the use of electronic commercial card products, a number of countries are moving rapidly towards the use of such programs for all types of expenditures including business supplies, maintenance, repair, operational expenses and travel.

59. In some advance country environments, such as USA, UK, Australia, etc., a large number of G2B activities are occurring online and the retail payment service providers are integrating data and reporting solutions closely with such products to allow better control strategies which help governments control and audit payments throughout the procure-to-pay process (see box 6).

Box 6: Procure-to-pay process for commercial cards

Procure-to-Pay Stage	Benefits from the use of Electronic Products
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

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

60. In some countries, most notably in the USA and the UK, payment service providers have established payment gateways which allow buyers (governments), their financial institutions and suppliers to all participate in procurement processes which allow for preferred prices as well as fewer steps in payment processing and reconciliation. Such platforms allow both EFT as well as card based purchases.

61. Electronic G2B programs are being used in many countries in the form of purchasing cards, fleet cards and travel cards. Additionally financial institutions and payment networks are focusing on innovations that provide additional payment authorization controls through other electronic mechanisms. Unless it is a cheque payment or a credit transfer, government agencies typically conduct such procurements through the use of credit cards or EFT based

payment gateways, and the funds are settled by the treasury through RTGS links with the commercial banks who are the issuers of such products.

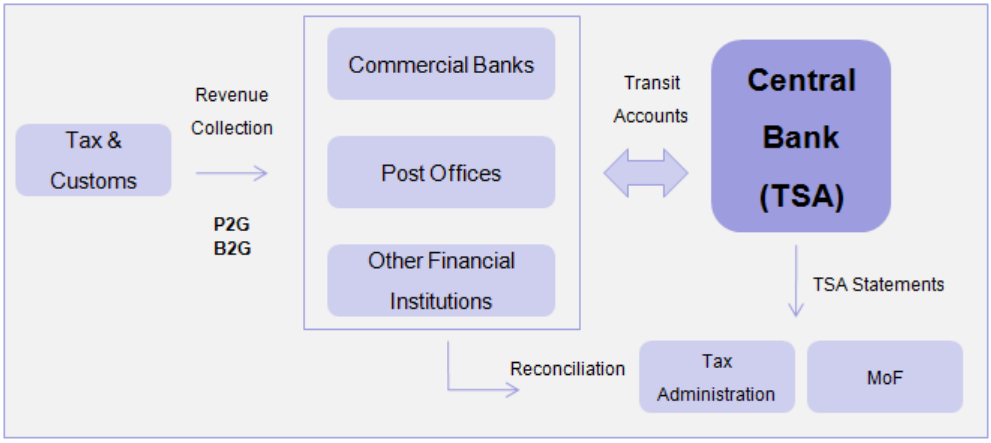
62. A typical flow for centralized payments by the treasury is described in box 4 above. The spending units submit payment requests (payment order (PO)) to the treasury, which checks them against the authorized limits and processes them for payment from the TSA through one of the interbank payment systems. The funds are deposited in the recipient's account in a commercial bank

Government collections and typical inflows

63. Inflow payments, or collections, are essential for efficient function of the government itself. In many countries, revenue collection is being increasingly handled by the commercial banking networks (see box 7). The taxpayers usually make the payment to a transit account at a commercial bank. The funds are automatically remitted to the government (to the TSA) in the central bank at regular intervals (for instance, at the end of the business day or at more frequent intervals if an RTGS is used).

64. Each day the bank submits an account statement (ideally in electronic format to facilitate reconciliation) to the tax authority and to the treasury, which is used for reconciliations against taxpayer records (tax authority) and the TSA (MoF/treasury). In order to avoid the issues of float, RTGS should enable within-the-day transfers from taxpayers' accounts to the TSA, via commercial bank accounts.

Box 7: Government collections



Source: World Bank

65. For P2G or B2G payments, payment methods may vary from fully electronic to partially electronic to paper based. Box 8 below shows the available mechanism for taxes and other forms of collections in the US. In countries where the banking system does not have a network of branches with ample coverage and the communication infrastructure is inadequate, the treasury might have to collect revenues through its regional offices or through the postal network.

66. In some countries, the treasury contracts with private sector companies (non-banking companies) for the collection of government revenues in geographically dispersed areas. Also for collection of fees owed to public utilities, countries that lack extensive banking infrastructure have looked into innovative methods for collections.

Box 8: Types of US federal government collection methods

Collection type	Collection method	Description
Fully electronic	Wire transfers	Fedwire: The payer initiates a real-time transfer of funds from its bank to the Treasury's account in the Federal Reserve Bank (FRB).
	Automated clearing house (ACH) transfers	ACH Remittance Express: The payer electronically sends an ACH credit through its financial institution to a unique routing number at the FRB.
		ACH pre-authorized debits (ACH PAD): An electronic transfer of funds from the payer's bank through the ACH network to the Treasury's account, authorized in advance by the payer.
		Lockbox ACH: The payer sends payment information to a designated lockbox bank through its financial institution. The lockbox bank then deposits funds into the Treasury's account using the payer's financial information.
	Credit or debit cards	Credit/debit card: Agencies collect credit or debit card payments through a Web interface, at the point of sale, or by mail, phone, or fax and transmit the data through a designated financial agent, which transfers the funds to the Treasury's account.
Partly electronic	Electronic check processing	Agency paper check conversion (PCC): Agencies collect paper checks over-the-counter at the point of sale or by mail, which are then converted on site to an electronic transaction or substitute check and deposited into the Treasury's account.
		Lockbox electronic check processing (ECP): Paper checks received through the general lockbox network are converted into an electronic transaction or substitute check for deposit into the Treasury's account.
Paper-based	Paper checks and cash	Federal Reserve Bank deposits: Checks and cash received by the agency are mailed or taken by courier or armored car to the nearest FRB for deposit to the Treasury's account.
		Treasury General Account (TGA) and International Treasury General Account (ITGA) deposits: Agencies collect cash and checks and deposit them at a local TGA bank (if domestic) or an ITGA bank (if international). The bank then transfers the funds to the Treasury's account.
		Lockbox General: Paper checks are mailed to a post office box designated by the collecting agency and FMS, where they are picked up by a courier and delivered to a lockbox bank, and then processed and deposited into the Treasury's account.

Source: US GAO report on electronic collections, November 2009

Box 9: Brazilian experience with correspondent banks

Brazil's correspondent model has become a well-established alternative approach to expanding access to financial services and an important tool for democratizing the provision and use of these services. Correspondents first appeared in the 1970s, when banks were allowed to enter into long-term contracts with companies to receive payment of bills and payment orders under the jurisdiction of the contracting financial institution.[1] In 1999, monetary stability had allowed correspondents to expand their services to include: (i) receiving and referring proposals for opening demand, fixed term, and savings deposit accounts; and (ii) receipts and payments for demand, fixed term, and savings deposit accounts, as well as investments and redemptions of investment funds.[2] However, these new services could only be delivered by correspondents in sites considered unattended, i.e. in areas without bank branches.

[1] Circular No. 220 of 15 October 1973

[2] Resolution No. 2640 of 25 August 1999

By 2000, regulations had changed to allow correspondents to set up anywhere in Brazil, dramatically improving access to financial services.[3] In essence, the regulation recognized that financial institutions make decisions about financial services provision based on customer profiles, the nature of the service, and the complexity of an operation. Changing the regulations to give financial institutions more flexibility ensured that the physical service network would expand, and it also improved market competitiveness. The current regulation allows all financial institutions, and other institutions authorized to operate by the BCB, to contract companies to carry out correspondent functions regardless of whether the companies are members of the SFN.[4] Correspondent services include referring proposals for opening accounts, receipts and payments for deposit accounts, receiving and referring applications for loans and financing, bill and tax payment, and receiving and referring credit card applications.[5]

It should be emphasized that services offered by correspondents are the sole responsibility of financial institutions and are subject to mandatory public disclosure of the status of mere provider of services to the contractor. In terms of the distribution of financial services, correspondent banking has been very successful: since 2002, every municipality in Brazil has had banking services and only 34 lack correspondents (they are served by other channels, however). The number of correspondent service points has grown steadily over time, and although these are concentrated in the Southeast region, every region has better access to financial services.

Payment tools like cash and collection orders can be used by anyone. Those who do not have an account, loan, or insurance policy from an authorized financial institution can pay their bills at branch or correspondents. Using one type of payment service ultimately makes it easier to use other financial services because financial institutions open or expand services once they have gathered more information about the profile of the people who are using them. In other words, it fosters a favorable environment for facilitating financial inclusion. Among all types of transactions (withdrawals and deposits, balances queries and statements, credit transfers, payments, and others), the most-used distribution channels are the Internet, self-service machines (ATMs), and traditional branches/outposts.

The Internet surpassed ATM networks in the second half of 2009, with the number of transactions almost doubling between the first half of 2006 and the first half of 2010. When only credit transfers and payments of collection orders and public utility services are analyzed, the most-used channels are correspondents, followed by the Internet and traditional branches and outposts. As already mentioned, even non-bank customers require payment services, which explains the increased use of correspondents and branches.

Correspondents play a particularly important role because they allow financial institutions to expand their services without overloading their branches. As for the Internet and traditional branches and outposts, different trends can be seen: while Internet use grew 17% between 2008 and 2009, the use of branches declined by 2%.

Source: Banco do Brasil

2.3 The importance of government payments and recent trends

67. In many countries, especially developing countries, the value of government payments including G2G, G2P/G2B and P2G/B2G transactions can exceed the gross domestic product (GDP) of the country and can also amount to a significant portion of the national payments transactions. In general terms, in the advanced economies, national payments are driven by commercial activities. Despite the fact that the value of government payments may account for a small fraction of the overall national payments ecosystem in some advanced economies, their size is still significant.

[3] Resolution No. 2707 of 30 March 2000

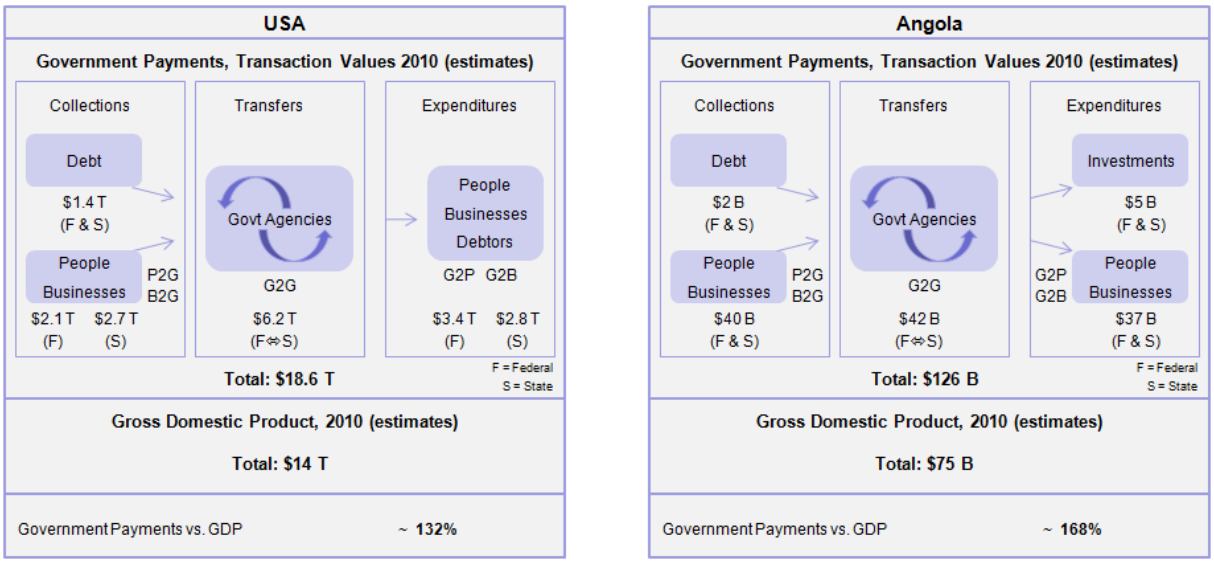
[4] Resolution No. 3110 of 31/072003, as amended by Resolution No. 3156 of 17/12/2003 and No. 3654 of 17/12/2008

[5] Items I to X of Article 1 of Resolution No. 3110, 2003

68. Box 10 shows a comparison of an advanced economy and a developing economy (USA versus Angola): in the USA, government payments are estimated to be $18.6 trillion and is 132% of GDP and in Angola, government payments total $126 billion and is 168% of GDP (2010 data). In both cases, this value of government payments is significantly higher than the annual GDP. This value is generally higher in countries where the government sectors tend to be large employers, such as the Netherlands.

69. In many countries, the sheer value and scale of government payments implies that the consequences of the reform within the government payments system and the leadership displayed my national authorities on such issues will have far reaching consequences on the modernization of overall national payments system of the country as well as impact the impact the public policy goals of financial inclusion of the underserved communities.

Box 10: Government payments vs. gross domestic product



Source: World Bank, IMF, US Federal Reserve and National Bank of Angola

70. Beyond the overall size of government payments, some other issues that also highlight the significance of government payments are:

- Management of government cash resources for budgetary and extra-budgetary transfers is a key component of public finance management. Many line ministries and departments within the government struggle with complex operations of keeping the government working. An efficient government payment mechanism based on central treasury and a treasury single account can enhance functioning while reducing wastage in the intra-governmental payments. Despite recent progress, government payment programs in many countries around the world, especially those for collections and expenditures, are largely dependent on paper-based payment instruments. As governments start to look towards replacing these instruments (or at least offering as an alternative) with electronic payment instruments, the ripple effect of this change will be felt on the core payment system infrastructure of the country stimulating the development of broader retail payments infrastructure.

- Moving to a safer and efficient payments platform through the introduction of electronic payments for government payments can have various benefits, such as: cost reduction and overall efficiency in the payment transactions, fraud reduction, improved control as well as reduction in the time to process payments, etc. In this respect, the role of the central bank as the fiscal agent of the government is critical as they typically centralize efforts, both in terms of collection of payments from and to the citizens and businesses.

- Furthermore, setting up centralized interbank clearance and settlement infrastructure, such as: real time gross settlement systems (RTGSs), automated clearance house (ACHs), etc. can have a significant impact in commercial entities using such back-bone infrastructure to create retail end-points for payments, such as: point-of-sale stations (POSs), automated teller machines (ATMs), and other card-based systems.

- Consumer adoption can also be facilitated by introduction of efficient retail payment instruments through the context of government payment programs. For many users, such government programs may be the first introduction to modern payment instruments, and a successful initiation by a trusted partner (government) may promote use of these instruments in many other commercial transactions.

- In addition to developing the infrastructure that improves the availability of acceptance points for such payments, governments can play a key role in this by developing proactive consumer education and communication programs in conjunction with major implementation efforts.

- Electronic payments can also extend financial services to previously under-served segments. Social welfare programs that use modern and efficient payment instruments can arguably promote financial inclusion and, in many cases, ensure that correct amounts of payments are being processed to the designated citizens on time.

- In order to launch reforms of the government payment systems, key legislation should also be introduced that facilitates replacement of paper-based payments methods with electronic instruments. Some of these legislations include: rules for participation by payment systems operators, consumer protection policies, fraud protection, anti-money laundering, fair pricing, financial literacy, etc. These changes can have an important catalytic impact on the enabling environment for promoting further innovations in the payment system.

- Often, these regulations are also accompanied by requirements on consolidation and use of treasury single accounts for public financial management. These steps not only improve efficiency but also enhance the capacity of regulatory bodies to enforce and monitor such legislation including changes to policies and practices.

- Finally, use of electronic payment systems can vastly improve the level of control and management of the systems that the overseers require thus reducing the overall level of risk. Greater safety of payments can be achieved with greater openness and transparency through increased audit capability of the reformed payment systems.

Current status of government payments

71. In 2010, World Bank's Payment Systems Development Group (PSDG) launched the latest version of its global survey to collect information on the status of national payment and securities settlement systems worldwide, including specific sections on government payments[6]. An analysis of the responses received from the central banks of nearly 130 countries is presented below and detailed results are summarized in box 11:

72. Globally, only about 50% of the responding countries incorporated electronic payments as part of their government payments arrangements. However, over 20% of the responding countries still used cash and over 40% used paper-based payment methods for government payments. Encouragingly, however, many of the responding countries reported some plans in the qualitative sections of the survey to improve government payments through implementation of electronic payment methods, use of central treasury arrangements, etc.

Box 11: World Bank Global Payment Systems Survey 2010

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%
Benefit transfers	9%	52%	46%
B2G Averages	12%	55%	51%
Global Averages	**20%**	**42%**	**53%**

Source: World Bank

73. G2P: Amongst the various types of government payments, G2P universally had the highest rate of use of electronic payment methods. Most importantly, payment of salaries to public sector employees included electronic payment methods in over 75% of the responding countries. Further, pensions and social benefit transfers also included electronic payment methods in 67% and 52% of the countries, respectively. P2G: Conversely, P2G universally had the lowest rate of use of electronic payment methods. On average, 50% of the

[6] Further details can be found here: http://www.worldbank.org/paymentsystems

responding countries reported collecting revenues from taxes, utilities, etc. via cash and 40% using other paper-based methods. While only 40% reported incorporating electronic methods for collections.

74. G2B: In terms of governments making payments to businesses for procurement of services and tax refunds, the response was balanced between electronic and paper-based based payment methods (mainly cheques) with nearly 50% incorporating each type of payment method. B2G: Collections of taxes, utilities payment, etc. by governments from businesses also saw balanced responses between electronic and paper-based based payment methods with nearly 50% incorporating each type of payment method.

75. In addition to the World Bank survey, a 2007 report by the Economist Intelligence Unit (sponsored by Visa Inc.) titled Government E-Payments Adoption Ranking (GEAR)[7] studied the extent to which selected countries (43) provided key government payment services through electronic platforms. The countries were chosen to represent all regions, many cultures and political systems, and broad levels of economic development and accounted for approximately 83 percent of the total human population and approximately 91 percent of global economic output (in 2007).

76. EIU's analysts and contributors conducted online research to test sixteen important transactions, including tax payments and refunds, automotive costs, social-welfare benefits, registration of businesses and government procurement. Data were also incorporated on the countries' payments infrastructure, and their educational, economic and political context. The adoption scores were based on 31 indicators grouped into 6 payment categories, including consumer-to-government; government-to-consumer; business-to-government; government-to-business; infrastructure; and educational, economic and political context (complete list of indicators is included in Annex E).

77. The report highlights that many leading countries allowed their citizens and businesses to conduct a large number of transactions online or electronically. They also combine well-developed information and communications infrastructures, technologically and financially sophisticated populations, and governments that are committed to electronic payments and to integrate the informal economy.

Trends of reform in government payments

78. The adoption of electronic payments for government payments has evolved over time. The degree with which such payment instruments have been adopted has varied amongst payment types: with most success in G2P payments, and, from one country to another. Some highlights of these developments are included below.

[7] Government E-Payments Adoption Ranking, A Briefing Paper From The Economist Intelligence Unit (EIU), Sponsored by Visa Inc., October 2007

Government to government payments

79. In many countries, treasuries have played a major role in improving the efficiency of the payment system, developing electronic payments and reporting procedures for the departments of the central administration. It has also indirectly influenced the way commercial banks provide a similar service to local governments and other public entities. Such transactions are initiated between different sub-accounts of the treasury single account general ledger. These transactions, even if they do not have, by definition, a direct impact on the final balance, can be very important both for the monitoring of the general government finance and for the managing of public sector cash resources with a consolidated approach.

80. In the case of 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 treasury has had to play a significant role in managing public spending. This has particularly been true due to the large amount of debt and a strong commitment to reviewing public spending mechanisms. The solution provided by Banca d'Italia has been to develop a consolidated treasury model for the 'asymmetric' financial flows structure, where the collection of revenues is highly centralized while spending procedures (and responsibilities) are decentralized; transfers of resources from the central to the local level are the fulcrum of whole the system. The proliferation of treasury sub-accounts (over 17,000 accounts), in the name of local governments, social security institutions and other autonomous public institutions with extra budgetary funds, are all located at the Banca d'Italia. These G2G payments account for 67% of total amount but only 1.2% of total number of payments executed by Banca d'Italia.

81. The wide use of a sub-account 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. As all sub-accounts are consolidated in the treasury general ledger, the treasury single account reduces the volatility of cash flows, thus allowing it to maintain a lower cash buffer to meet unexpected events. Further integrated systems such as SIOPE (the Italian acronym for General Government Transactions Information System), started in 2006, have been implement to collect data and information on public payments and revenues together with a transaction code identifying the kind of underlying operation. This provides improved mechanism to manage public monies.

82. In the case of Turkey, the Ministry of Finance (GD of Public Affairs) and the Central Bank jointly developed government payments software know as the Public Electronic Payment System (KEOS) which fulfills the TSA function. The system has four key steps: (a) electronic transmission of payment requests by various ministries to the Treasury for payments to individuals, institutions or businesses using the Public Expenditure and Accounting Information module (KBS, upper system sheltering KEÖS); (b) the payment request is electronically fulfilled by the Treasury through KBS; (c) dispatch orders issued by the accounting units affiliated to the Ministry of Finance are electronically transferred to the Central Bank through KBS- KEÖS (subsidiary system); and, (d) the Central Bank conducts the act of payment for the dispatch orders and thus the cash is transferred to the accounts of the concerned individuals or institutions from one center.

Box 12: Central treasury and TSA implementation in France

France has a well developed TSA at the central bank (Banque de France). The TSA includes the balances of local authorities, municipalities, and quasi-governmental bodies as well as of central government revenue and spending departments (including overseas authorities). Social security funds are managed by public accountants (under the Direction Generale des Finances Publiques, DGFIP), but not by the treasury. They are not held in the TSA, but in a state-owned savings bank. Cash (and debt) management is the responsibility of Agence France Trésor (AFT), which is an agency of the French Treasury, which in turn is part of the Ministry of Economy, Finance and Industry. AFT actively manages the TSA, and has developed a cash flow forecasting capability accordingly. 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. AFT operates a centralized payment system. The spending agencies make expenditure commitments and forward payment requests to one of the nearly 4500 regional treasuries. Payments are made from the regional sub-accounts of the TSA. Closing balances in the sub-accounts are swept into the TSA in real time. The government does not use accounts with commercial banks.

Historically, the coverage of the French Treasury (Trésor) has been very broad compared to treasuries in other OECD countries. It extended beyond the general government and covered other public entities including state-owned enterprises (SOEs). The Trésor also received deposits from the public. Government cash management in France refers to the management by the AFT of all cash flows that are brought to account in the TSA at the Banque de France. All central government cash flows (including investment flows) and financing transactions are included, with only very marginal exceptions.2 It also includes the cash flows of “treasury correspondents”; these are the regional and local governments, public establishments and businesses which, by virtue of legislative obligations or convenience, keep an account within the TSA. 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. Under recent reforms, however, the coverage of the TSA has been steadily shrinking. During 2002, the “Trésor public” stopped receiving deposits from the public, and removed the SOEs and Postal department from its purview. Apart from the main government flows, currently only major extra-budgetary funds like social security are managed by the Trésor. Social security funds are not held in the TSA, but in the Caisse des Depots et Consignations, a state-owned savings bank. However, the scope of the TSA remains very broad and avoiding its shrinking is part of the structural commitment to optimize government debt.

Source: Banque de France

Government to person payments

83. The Electronic Benefit Transfer (EBT) program in the USA was one of the pioneering G2P programs in the world, as an efficient replacement for coupons, cheques and other paper benefit delivery methods. The success of EBT in the US led to governments at all levels - federal, state and local to expand the delivery of transfer payments and payroll through electronic payment instruments.

84. Within the European Union, in addition to the more conventional electronic payment instruments such as ACH direct credit, a number of central and local governments are increasingly using innovative payment instruments such as prepaid cards or smart cards to make various types of payments. In Poland, for example, some payouts of the central and local government benefits are now being handled through the prepaid cards instead of cash distributed by the banks or post offices. 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.

85. In the UK, over four million people currently receive some form of government benefit paid through the Post Office on the Post Office Card Account (POCA) and many of these do not have any viable alternative. The POCA, which can only be used to draw cash across a Post office counter, is due to be phased out by 2010 and there is real political concern as to the effect this will have on some of the most vulnerable in people in society. Replacing the Post Office Card Account with a prepaid card that features both ATM cash withdrawal and POS functionality, would ensure the continuation of a popular method of benefit receipt and spend.

86. The trend towards the use of electronic payment instruments for government payments is not limited North America and Europe. Several countries in the CIS region and Latin America have also taken bold and innovative steps to launch various types of government payments using electronic payment instruments. In Russia, the launch of Universal Electronic Card on a chip based smart card has made possible inclusion of several government benefits like transportation, healthcare, utility, etc., on one card. Similarly, another smart card product from Russia - Muscovite Card delivers pensions to over 4 million recipients. In Tunisia, with the introduction of e-Dinar Card by the Tunisian Post Office, the payment of utility payments has become streamlined and efficient. Similar payment options are also being developed under World Bank funded projects in Azerbaijan and Kyrgyzstan.

87. In the Caribbean, the government of the Dominican Republic (DR) also addressed the challenge of efficiently and effectively delivering safety net benefits to needy citizens through electronic payments. Before the launch of the Solidarity Card program benefits were distributed manually. Aid was not always reaching eligible recipients and the government had no efficient way to monitor distribution, measure results, and plan program improvements. An economic crisis in 2003 caused the government to look for a better way to deliver assistance to its needy citizens and at the same time improve public spending by identifying the key targets of the population that should benefit from the government subsidies.

88. 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; and, creating a single flow of benefits that government could control and monitor. The ADESS launched a unique card-based distribution program for food subsidies. Beneficiaries of the Comer Es Primero (Eating is First) program were able to purchase groceries at small neighborhood merchants who were provided with card acceptance terminals. The program was carefully designed to deliver the targeted assistance through prepaid cards that allowed no cash access and allowed users to use the card at select merchants.

89. The use of electronic payment instruments for government payments has also been growing in some developing and least developed nations. There is a strong overlap between government payments and many social safety net (SSN) programs including unconditional and conditional cash transfer (CCT) schemes. It is estimated that today, nearly 170 million poor people in the world receive government payments worldwide in some form of social transfer programs. However, many of these programs still rely on non-electronic delivery methods and would benefit from a move towards a more efficient and effective payment system.

Box 13: Government to people payment project in Pakistan

Government of Pakistan launched in 2008 one of the largest cash transfer programs yet seen in a low income developing country: the Benazir Income Support Program (BISP). In 2010, BISP began collecting information on all eligible households to create a standard unified database. The rollout of BISP has been greatly aided by the fact that Pakistan has a unique national identity card (CNIC) and associated ID number. These numbers are issued by and stored on a national database maintained by NADRA, a state agency. Initially, BISP aimed to reach 3.5 million families or 40% of the population below the poverty line, although the target number was revised upwards to 7 million in 2010. By June 2010, BISP had registered 2.2 million households, and disbursed almost $500m in cash grants. Pakistan's formal financial system has a much more limited reach: according to the 2009 FinScope survey, only 12% of Pakistani adults were banked. Consequently, most BISP grants are delivered in the form of a money order issued by the Pakistan Post to the doorstep of beneficiaries by their postman. For this service, Pakistan Post receives a fee of 1.5% of the value.

With some 11,000 post offices nationwide, Pakistan Post offered a much wider reach than the banking system and was able to adapt its existing money order product to start payments rapidly. Official reports are that 96-98% of payments are delivered on time by the post office, although it is very difficult and slow to reconcile the payments using the manual system of the post office. In early 2010, BISP published a request for proposal inviting banks to participate in a pilot of a smart card payment process in 4 districts. United Bank Limited (UBL) was able to offer to use its emerging agent network (Omni) to allow beneficiaries to withdraw their cash from limited mandate accounts which were set up for the pilot. These special purpose accounts allowed only withdrawals and had no other functionality. For UBL, this offered an opportunity to bring more business to its new agents, provided they had enough liquidity to meet the demand for cash and could satisfy the additional process requirements of BISP.

Agents again receive a fee of 1-1.5% of the amount paid ($0.12) per BISP payment out of the fee of 4% paid by BISP to UBL. BISP cards for the pilot were customized by government identity agency NADRA. The cost of around $5 per smart card was paid by BISP. Each card had a chip embedded on the front and a 2D barcode on the back containing the CNIC number. This bar code could be read by the mobile phone camera of the agent. The mobile phone scanning method initially provided to have high error rates, although these declined as agents became more familiar with photographing the image correctly. The BISP smart card was also issued with a PIN number contained in an attached mailer. At the time of payment (usually first week of the month), the beneficiary presents herself at the agent; and hands over her CNIC & BISP cards to the agent. The agent scans the 2D barcode and the beneficiary enters her PIN number into the agent's mobile phone or keypad to authenticate the transaction. In areas with a high volume of BISP payments, UBL provided agents with barcode scanners at its expense to expedite the process of reading the number and also provided internet access to Omni via a PC (paid by agent).

Source: CGAP

Government to business payments

90. The US Government's commercial payments program is managed by the General Services Administration (GSA). GSA manages all G2B payments. GSA issues a "master" RFP to the commercial banks and based on the responses, selects 4-5 commercial banks to provide services to various agencies. When commercial banks are selected within the master contract framework, it does not guarantee them businesses with individual agencies. They have to bid again to win the work for each agency. Master contract simply gives them the 'ticket to play'.

91. In the UK, The Treasury Office of Government Commerce (OGC) issued a similar tender a couple of years ago to manage the government procurement programs more efficiently. The federal and provincial governments in Australia also have mature G2B payment programs that are used for control and compliance of procurement and employee travel.

Box 14: The Brazilian experience with government to business payment programs

In 2001, the Brazilian 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 the Federal Government Payment Card or in Portuguese (Cartão de Pagamento do Governo Federal (CPGF), is supported by the state-owned bank Banco do Brasil (BB), the exclusive financial agent of the Federal Government.

Prior to the establishment of CPGF, 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 (Contas Tipo B). 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 Type B account or when the funds were spent by the approved employee, the Treasury faced a challenge in maintaining visibility or direct 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 CPGF allowed the government to keep all funds in the central account until transactions 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 the issuer BB. Another advantage of the card is that it enables the federal government to permit higher value individual transactions (up to 50% higher in most cases) than was possible with the Type B Accounts, which were eventually extinguished in 2008. Additionally, and most important, the CPGF allowed to achieve more transparency and accountability in the use of government funds. Through the Federal Government's transparency website (www.transparencia.gov.br), the expenses made with payment cards can be tracked by agency and individual card-holder, providing full disclosure of value of the transaction, date and type of merchant. At present, 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$28million in the first six months of 2010, while government agencies using the program have doubled from 10 to 22 respectively[8].

A number of legislative and regulatory changes have taken place over time to allow the successful implementation of the CPGF. The overall administration of the CPGF was improved through Executive Decree No. 5.355 enacted by the President in January 2005, which paved the way for a broader and more consistent use among all federal agencies and departments. This decree was later modified by Executive Decree 6.370 enacted in February 2008, which limited cash withdrawals to no more than 30% of the eligible funds available to each government entity. Representatives from the Ministry of Planning, Budget and Administration, the National Treasury, and the issuer bank BB are part of a working group that is responsible for managing the card program on an ongoing basis and this cooperation has been crucial for the success of the program, including a highly efficient on line reporting. It is worth noting that Banco do Brasil is also implementing several other payment programs with state and municipal governments that are similar to the CPGF program but not subject to the same regulations. Brazilian state and municipal governments are as the federal government. As a result, many agencies use their Visa payment cards for travel and representation (entertainment) expenses, and/or low-value purchases. BB provides the same services, including online reporting, for these programs as it does for the federal program, allowing the state and municipal government clients to enjoy the same benefits as those of their national level counterparts.

Source: Visa

Person/Business to government payments

92. The use of modern payment methods can increase the revenues and effective management capabilities of the government. In Korea, a program to implement credit cards and cash receipts has dramatically improved tax collection. It is estimated that taxable resources automatically exposed as a result of credit cards and cash receipts stood at a mere 12.1% of total private consumption spending in 1995 and 15.5% in 1999, but started to grow with the introduction of various credit card incentives that followed in 2000, before

[8] Information obtained from www.transparencia.gov.br

reaching a plateau at the lower 40% range. The numbers picked up with the introduction of a new cash receipt system to 50.8% in 2005 and to as high as 56.9% in 2006, an indication that transparency was improving. The effect on exposure is clearly visible in the drastic increase in taxes paid voluntarily on the income earned for the year ending December 31, 2006.

93. In the USA, over the past 5 years, more than 80 percent of funds collected by federal agencies other than the Internal Revenue Service (IRS) were collected using fully electronic methods, including wire transfers and credit cards. This shift was largely a result of a growth in electronic cheque-processing capacity. Taxpayers may still use paper cheques but due to development of Electronic Cheque Conversion (ECC) technologies and their wide adoption by government agencies, a large number of payments collected by the agencies are getting converted to ACH at the point of interaction (POI). For income taxes collected by the IRS, taxpayers are also making tax payments by debit or credit card with or without e-filing the tax return. These payments are made at the time of e-filing over the telephone or online. However, there usage is still limited as the taxpayer has to absorb the merchant fee, which is passed on by the payment network in the form "a convenience fee." For credit cards this is 2.49% of the tax payment and for debit card payments, they charge a flat fee of $3.95.

94. In the case of Russian Federation, as a result of cooperation between Bank of Russia, Federal Treasury and the Ministry of Finance, an innovative legal framework was developed to allow implementation of electronic technologies into the processing of the budget payments collected from individuals and executed without opening of the bank account (P2G without bank accounts). These payments are legally free of charge (as well as B2G payments which are also free). The new service which has been developed by the Bank of Russia enables credit institutions to transmit information about payments through the Bank of Russia electronic communication channels towards Federal Treasury for its further delivery to budget income administrators[9]. The structure of the transmitted information will allow confirmation of the execution of the government payment. This service gives a way for credit institutions to enhance the traditional practice of sending only one cover payment in Bank of Russia payment system by usage of simultaneous transmission of the information about every particular payment through the information channel. It also allows budget income administrators to execute the personalized accounting of payment from every individual and to increase the speed of data processing.

Box 15: Turkey's custom electronic payments collection

Turkey's Customs Electronic Payment Collection System has been developed for taxpayers to pay customs taxes. The payers use a dedicated debit card for such purpose: GÜMKART (Customs Electronic Payment Card) at the POS terminals installed in the Customs Accounting Units affiliated to the Ministry of Finance. The system has been 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.

95. As discussed in many examples above, the clear trend is positive for all payment types. Many governments are making efforts to reform government payment programs.

[9] Organizations that control the budget's incoming payments.

3. Key issues concerning government payment programs

96. This section analyzes in detail the key issues and challenges faced in the design and implementation of various types of government programs. In particular, what are the key problems faced by the government institutions involved in the development of the reform agenda and the potential solutions that can be developed as part of the reform agenda.

3.1 Legal and regulatory framework

97. There is no single legal and regulatory framework which applies universally to the various types of government payments. In broad terms, the payment types that utilize the retail payments infrastructure - G2P and G2B on the expenditure side and P2G and B2G on the collections side - fall under the purview of the prevailing laws and regulations that have been developed and implemented in support the banking and retail financial services activities within the country such as, the laws related to regulation and supervision as well as those related to transparency and providing a level playing field for all players. There are usually no special legal and regulatory requirements for government payments. However, specific to the intra-government payments, special legislation or regulation may be needed for the establishment and operation of the budgeting and accounting systems such as, the TSA.

98. ***Government transfers*****:** in many countries, there is a general trend towards of the reform of public financial management systems; however, it is not a common practice where these countries set their treasury management functions within the overall framework for government fiscal management which, among other functions, may include tax administration, budget preparation and expenditure allocations, macroeconomic forecasting and management.

99. It has also been observed in some countries that the implementation of the TSA and other accounting and budgeting applications[10] starts well before the implementation of a sound legal and regulatory framework that will support such systems or the implementation has evolved overtime and been done in a piecemeal fashion. In either case the effect is sub-optimal as the legal and regulatory framework should be typically in place prior to the design and implementation of such systems as they will be required to abide by the rules set out in the framework.

100. Other commonly observed areas of uncertainty concerning the legal and regulatory framework for intra-governmental payments include:

- Lack of political support, leadership, or the willingness to undertake lengthy reform of the legal and regulatory framework may further contribute to the uncertain environment for the development of TSA and other related systems. Lack of will is sometimes evident in piecemeal implementations of regulations which are hastily implemented to support the development of the TSA and/or other public financial management tools (such as IFMIS).

[10] Integrate Financial Management Information Systems (IFMIS)

- The respective roles of the National Treasury, Ministry of Finance, and other line agencies or ministries which are responsible for controlling and executing government expenditures and collections, and the role of the central bank as the custodian of the TSA[11]. On the expenditure side, ambiguity in respective roles can have an impact on the control structure of the public finances including how budget appropriations are authorized, documented and executed. Similarly, on the collections side, ambiguity may arise in the recording and processing of transactions and the procedures for maintaining audit trails.

- Delineation of the boundaries of TSA is another area where there is a lot of uncertainty. Typically, defining the boundaries works well when the legal and regulatory framework is well defined, however when the framework is weak or non-existent, defining the boundaries is a challenge including where the different government accounts should be maintained – custody issue; which ones should be integrated with the TSA and which ones should be maintained outside the TSA including extra budgetary funds (EBFs), pension funds, loans from donors, etc. Lack of a proper framework can lead to ambiguity on critical public financial management issues such as the legal right of the government to use surplus cash from the EBFs, pension funds or other trust funds for short term funding needs.

101. ***Government expenditures and collections***: government expenditures and collections are handled through the retail payments infrastructure of a country which supports both paper and electronic payment instruments. The electronic payment instruments include EFT based products, payment cards, emerging technologies such as prepaid cards and mobile payments, and specialized e-payment gateways for G2B payments. For such instruments a country's legal and regulatory framework for retail payments is relevant and sufficient.

102. However, due to the importance of government payment programs at the national level, if certain provisions are unavailable then the government has the capacity to expedite the implementation of legislation and/or regulations that addresses the specific gap in the framework. For instance, if the legislation for electronic money does not exist in a country and a government is planning on launching a large G2P program based on prepaid cards then they have the capacity to expedite the necessary regulations that will support issuance of such products by the banks or non-bank financial institutions. In general terms, the issues and challenges concerning the use of electronic payment instruments for government payments and collections can be categorized as follows:

- Lack of effective oversight of payment instruments used for government payments and collections: A commonly encountered problem regarding the payment instruments used for payments and collections is the lack of proper oversight mechanisms and a designated institution that is responsible for the oversight function. Effective oversight is seen as an important mechanism to ensure that the payment instruments used for delivering and collecting payments are consistent with the public policy objectives of financial inclusion and safety and efficiency.

[11] Typically the custody of the TSA is with the central bank but in certain countries the main account of the TSA can also be at a commercial bank. However, location of TSA at the central bank has advantages as it may limit the exposure to credit risk.

- The practice of associating retail payment services with traditional retail banking activity typically influences the regulators to treat retail payment services as an extension of banking activity and has far-ranging implications for regulation and oversight as only banks may be permitted to provide retail payment services which may limit competition and also inhibit specialization and innovation in payment services. The use of innovative payment instruments such as prepaid cards or mobile payments may be restricted to only banks. The uneven application of regulations makes it difficult for both bank and non-bank payment system operators both from a financial perspective in terms of capital requirement and also from operational requirements like data retention, KYC norms, reporting and other statutory requirements.

- Lack of recognition of electronic payments as valid means of payments and the responsibilities and rights of the persons and businesses involved in payments and collections: In many jurisdictions, the prevalent legal framework may not recognize electronic payment mechanisms as the legal form of payment, as these may not have existed when the relevant legal framework was developed such as, The E-Money Directive (2009/110/EC)[12] of the European Parliament and of the Council. This creates significant legal risk for financial institutions offering electronic payment services and forces them to protect themselves using bilateral agreements whose legal basis are not very sound, and is some cases forces them to hold back on introducing electronic payment services.

- Non-acceptance of digital signatures, digital records and digital exchange of payment instructions as equivalent to their physical equivalents. Electronic payment instruments and mechanisms involve digital signatures/electronic authentication binding the parties to transactions, electronic transmission of payment instructions, recording of transactions at electronic devices and maintenance of digital records instead of paper records. The legal framework needs to recognize and accord these mechanisms the same protection extended to their paper equivalents. In the absence of this, the payment system operators are left to protect themselves using a series of bilateral contracts with their customers and other players in the value chain. These bilateral contracts in the absence of a clear enabling legal framework recognizing electronic transactions would expose all the entities to significant legal risk. A related aspect is recognition of frauds impacting electronic payments as crimes, and clear rules with respect to usable evidence, sentencing and other law enforcement aspects.

- Lack of enabling environment for innovative payment instruments: underdeveloped or missing legal and regulatory framework could often constrain innovation in payments, in the context of the government payments and collections, these constraints include: lack of specific regulatory framework that allows issuance of innovative payment instruments such as e-money instruments, direct debits, etc.; entry barriers for new entrants in the form of disproportionate regulatory requirements; restrictive rules related to customer identification, reporting and other such aspects which could constrain development of innovative mechanisms; inadequate protections against anti-competitive practices which could impact introduction of innovation payment services by non-banks or specialized entities; and, lack of flexibility in the legal framework to accommodate innovations thereby exposing innovative mechanisms to legal uncertainty.

[12] More details here: http://ec.europa.eu/internal_market/payments/emoney/index_en.htm

- Lack of established guidelines for government procurement: for government procurement practices to be fair and efficient, it is important that there are uniform guidelines developed and adopted by all line ministries or agencies that are involved in procurement of goods and services. Such guidelines or rules must outline: the general roles and responsibilities of persons/entities involved in conducting and approving procurements; controls to monitor and prevent misuse of government funds, fraud and leakages, wrongful or incorrect payments, and other forms of waste and abuse; and risk management policies and their compliance with the appropriate laws and regulations that govern public procurement and/or agency/ministry regulation.

103. ***Consumer protection***: government payments and collections use the domestic retail payment infrastructure and in a large number of circumstances, government programs reach populations without adequate access to payment services, such as conditional cash transfers (CCT) to the rural poor. As noted previously, in absence of other mechanisms, such programs are a means to introduce electronic payments and promote financial inclusion among recipients who have very little knowledge of electronic payments and are typically very skeptical of their benefits. To ensure that such programs are successful in terms of adoption by the intended recipients and serve the public policy objective of financial inclusion, they should not only be transparent but also set the overall standards for consumer protection and financial literacy which could be broadly utilized throughout the retail payments sector. Transparency promotes accountability and provides information for citizens about what the government is doing and how to engage and interact with it.

104. However, in the handling of government expenditures and collections by financial institutions, there are always imbalances of information and resources. Consumers do not always have full and transparent information on the products that they are using or the government obliges them to use. Reforms in the legal and regulatory framework can address some of these challenges faced by consumers and enhance consumer protection, such as:

- Lack of choice in selecting the payment instruments. On efficiency grounds governments may mandate electronic payments; however, if electronic payments are not a cost-efficient or a convenient choice for the recipient then it impacts their ability to adopt that payment instrument fully. Ideally, full information on fees and prices should be disclosed to consumers for all instruments if multiple choices exist.

- Transactions such as ATM withdrawals, balance inquiries, POS usage may be costly for consumers to conduct. Additionally, financial institutions may slap monthly fees, overdraft fees or other fees associated with product usage or maintaining a bank account.

- Lack of availability of statements or the ability to consumers to access their account information at a reasonable cost or in a timely manner.

- Lack of wide-scale acceptance or availability of infrastructure for the product that the government may have mandated for payments and/or collections. For example, salaries or pensions may be mandated on payment cards but the recipients have very few functioning ATMs or EFT POS terminals where such products could be used.

- Lack of formal financial literacy materials that educate the consumers on their rights and enforceability of such rights in legal courts.

Box 16: Poor practices in consumer protection in USA G2P programs

- The Michigan child support card has $20 overdraft fees even if the purchase is approved by financial institution.
- The Indiana unemployment insurance card provides no statements, charges $0.50 to check balances at an ATM, and recipients cannot switch to direct bank deposit.
- A Missouri man was charged $6 for two $40 withdrawals from his unemployment insurance card.
- Consumers can lose funds on most cards if unauthorized charges are not disputed in 60 days, even if the consumer never sees the charges.
- Those relying heavily on Social Security income pay nearly $1 billion in fees for unauthorized overdrafts. Overall, citizens 55 and older pay $4.5 billion in overdraft fees.
- Debit card transactions are the most frequent trigger of unauthorized overdrafts for older adults, despite the fact that they are less likely to use debit cards than their younger counterparts. Account holder who overdrafts using a debit-card pay far more in fees than they receive in credit.

Citizens 55 and older overwhelmingly want the option to avoid unauthorized overdrafts and would rather be declined at the checkout if their debit card purchase would otherwise result in a fee averaging over $30.

Source: US National Consumer Law Center (2009) and Center for Responsible Lending (2008)

3.2 Payment systems infrastructure

105. Government payment programs, except those that are entirely cash-based, depend at some stage on the domestic payments infrastructure for clearing and settlement. Improvements to the underlying retail payments infrastructure can be seen as an important prerequisite for successful implementation of government payment programs. Lack of interoperability in payments infrastructure or other obstacles such as lack of a well functioning RTGS or ACH can impede the conversion of paper based government payment programs to electronic ones.

106. Sometimes gaps in the payments infrastructure may be addressed by the market itself. However, given, the diverse nature of the institutions involved in the provision of the infrastructure and the potential for conflicts of interests and a lack of coordinated approach in terms of meeting the public policy objectives, the public authorities led by the central bank, must consider either direct intervention in the provision of infrastructure of develop a strategy for coordination of efforts by various private sector payment service providers. The extent of government involvement in the provision of payments infrastructure depends upon the type of government payment as the issues and challenges are different for each type.

107. ***Government transfers:*** one of the key challenges faced by countries interested in central treasury model is the best process for consolidation of cash balances through the TSA through its interface with the accounting and payment processing systems. In theory, a TSA can operate with both centralized as well as decentralized[13] payments processing and accounting systems. However, the feasibility of implementation of a TSA depends on the level of payment system infrastructure within a country as well as the extent of development of various systems within the government, including an IFMIS and a reliable ICT infrastructure. Poor payments infrastructure in a country can become an obstacle to

[13] In a centralized model, the treasury department controls all financial transactions and makes payments on behalf of the spending agencies; whereas, in a decentralized model the treasury department may set cash limits for transactions but spending agencies have the power to transact payments directly through the commercial banks. In either case, the treasury department maintains central control of cash, sweeping idle balances from spending agencies' accounts and consolidating the government's cash position at the end of each day.

combining consolidation of cash balances with decentralization of payment processing. Countries with underdeveloped interbank payments infrastructure (e.g. RTGS) the daily clearing of accounts with various banks could be more difficult than daily settlement within a set of accounts at the central bank. Maintaining a large number of accounts at commercial banks could also hinder the implementation of appropriate clearing and consolidation procedures. In such environments, centralized systems are deemed as better solutions as payments requests are made by various government agencies and payment execution and accounting is done centrally. This approach However, such an approach may also lead to inefficiencies if the integration of TSA with payments and accounting system is not properly coordinated, leading to high transaction costs and potential for fraud and leakages.

108. Another challenge faced by countries in implementing a TSA (and IFMIS) is whether to implement a commercial off-the-shelf solution of to develop a customized solution. Both approaches have their advantages and disadvantages. Whereas, the customized solution is likely to be the best solution as it will be developed according to the structure of the TSA and its interface with the accounting and payment processing systems. However, implementing a customized solution requires a disciplined project management approach to avoid any cost and time overruns. On the other hand, off the shelf solutions are well developed these days but require a careful selection to ensure that the right package is selected and it can be tailored to the requirements of the country. The ideal choice is typically in between: a solution that is off the shelf but is modular and can be customized to fit any circumstance. This avoids the challenge of building a solution from scratch but also retains flexibility to some extent.

109. Linked to the challenge of selecting the right solution is the issue of timing or phasing of implementation of the TSA in parallel with other modules of IFMIS. In addition to what kind of relationship the TSA has with other systems - centralized or decentralized, there is a challenge with the development of interfaces between the TSA and various national or sub-national systems. All systems have to abide by a Common Chart of Accounts which is the basis for the accounting system. Establishing the Chart of Accounts can be a long process and implementation of a TSA prior to a well established structure can be inefficient.

110. ***Government expenditures and collections:*** concerning various types of government payments and collections, which use the domestic retail payments infrastructure, there are several challenges that must be addressed either by the public authorities through government-wide coordination or in partnership with the private sector.

- From an efficiency standpoint, the retail payments infrastructure which supports government payments and collections can pose a challenge if the availability and accessibility of such systems is sub-optimal at best or in many cases nearly negligible due to limited interoperability between various domestic payment systems. This may be due to use of different technologies or message formats or because of adoption of policies by system owners that restricts processing of transactions belonging to a non-proprietary format. Since government programs may be national in scope and reach out to large number of individuals or businesses in many different areas of the country, reasonable coverage at the national level for a particular payment service (card payments, EFT, etc.) may be difficult to achieve due to lack of interoperability for a particular payment service.

- Another aspect that is critical from the efficiency of payments infrastructure for government payments and collections is the method for final settlement of such transactions and the application of appropriate risk management practices. By settling through the RTGS System, the financial institutions can attain higher levels of settlement efficiency compared to settling in commercial bank money where the

participants operate multiple settlement accounts in designated commercial banks. Even though a large number of countries have moved in this direction, some of the smaller emerging markets are still conducting clearing and settlement in either commercial bank money or through cheque clearinghouses.

- In addition to settling through the RTGS, financial institutions and other non bank financial institutions that provide the retail payment instruments used for government payments and collections must have automated and centralized account management infrastructure. Electronic payments involve transmission of the payment instructions between the payer's financial institution and payee's financial institution and these exchanges of instructions happen in real-time or near real-time, the financial institutions would need an automated centralized customer account management system[14] for processing these, as a decentralized system would require additional steps which would be inefficient, and if the operations are manual, impossible. Such a system is particularly relevant for payments and collections that are made by financial institutions using EFT based instruments across geographic regions. Without such systems in place, receipt or payment to an individual in a remote region will not be possible until the bank branch or outlet has the ability to electronically confirm such payments.

- Underdeveloped or missing payment services infrastructure has resulted in relatively high transaction costs and low penetration of payment services for the lower income populations who receive government benefits in many countries. Factors such as the small amounts of money involved in the payment transactions, and the often marginal social status of the underserved segments has resulted in a lack of safe and efficient options that satisfy the payment needs of people who do not have adequate access to payment services. Very often, financial institutions find it too costly to service these customers using traditional retail payment products and do not have an incentive to extend the payments infrastructure in the form of EFTPOS terminals and ATMs or simply do not want the business of low income customers. In the 2010 World Bank survey[15], 61% of the central banks surveyed reported that account opening charges were lower or negligible, but only 25% reported the same for account maintenance charges.

- Keeping pace with the changing technology and evolution of payment infrastructure such as, changes in the messaging formats, changes in technical and computing standards, etc. has been challenging in many countries.

- In recent years, many countries have seen the emergence of innovative payment solutions that have been successful in improving the access to payment services for low income populations, by devising new business models. In such environments, whereas the banks have found it difficult to either set-up or extend costly branch infrastructure beyond the larger urban and semi-urban hubs to serve the poor, significant improvements in technology combined with new product offerings have been adapted mostly by non-bank payment service providers to satisfy the payment needs of lower income consumers. These solutions have been developed either using the conventional payments infrastructure, e.g., prepaid cards using the

[14] Also referred to as Core Banking Systems

[15] World Bank Global Payments Survey 2010

payment cards infrastructure made available by international or domestic card schemes; or the use of mobile payments platforms in conjunction with a network of business correspondents or agents for the provision of non-cash mobile based payment services. Increasing the access to payment services to promote financial inclusion and has been a challenge.

111. ***Payment process automation***: with the goal of achieving efficiency in the payment process as part of the reforms in the payment infrastructure, it is important to consider the process automation aspects of payments. Electronic payment systems offer inherent advantages to all stakeholders involved in the government payments value chain on the grounds of speed and efficiency of payments, however, it is essential to pair this advantage with the appropriate processes to exploit the facilities.

112. In terms of government transfers, efficiency can be hampered as a result of lack of effective consolidation and automation of government cash resources through a TSA structure facilitating government cash management and minimizing the borrowing costs for the government. To ensure efficiency, processes and systems need to be in place for transaction processing, accounting and other overall controls such as, segregation of functions, management approvals, and third party audits and reconciliations.

113. In terms of government expenditures and collections, automation of programs and systems such as, defining eligibility entitlement systems, and linking them up with electronic payments is an effective way to manage efficiency. Government payment programs should calculate payments based on existing policies and criteria of government agencies.

114. For example, G2P benefit payments made by a line ministry must be based on some calculation of the beneficiaries' entitlement during a time-period. Each entitlement or case has to be recorded (either directly into the payment system or into an ancillary case management system), and the payment system should use the data entered to calculate the payment.

3.3 Risk management

115. When it comes to the implementation of government payment programs, government agencies are inherently risk averse. For governments, in addition to the systems being efficient and cost effective, they must also be proven, reliable and secure.

116. ***Government transfers:*** governments face several challenges related to effective risk management practices when it comes to establishing a central treasury model and its associated systems:

- Technological requirements must be feasible for the banking system to participate in the operation of a TSA and report on the TSA transactions. If technological requirements are developed in a way that the banks find it difficult to adopt then the TSA may not function effectively. In some environments, a decision to implement a TSA may trigger the acquisition of necessary technology by the banking system as the banking services will

be remuneration based. However, additional incentives may be required in environments where the banks do not want to make the necessary investments.

- One of the key challenges faced in some emerging market countries in the implementation of a TSA is the non-existence of an electronic interbank settlement system such as the RTGS. Since the RTGS plays an important role in the daily cash management of government accounts, a well functioning RTGS and its connection to major commercial banks that participate in government payments and collections is an important pre-condition to efficiency in government payments. This requirement is of special importance in the case of a decentralized TSA architecture.

- Alternatively, an electronic interface between the treasury and the banking network through an IFMIS would facilitate a full-scale centralized TSA. This should be addressed during the conceptual design phase of the TSA and the IFMIS.

- Information loss: establishment of a TSA, some information that is currently available from the banking system is likely to be lost. As a good risk management practice, if such data are relevant for budget management purposes, they should be captured through the chart of accounts, which may require modification. This work should also be completed during the conceptual design phase of the TSA and the IFMIS.

117. ***Government expenditures and collections:*** in terms of selection of payment instruments and services, risk management is also one of the key criteria why government chose electronic payments over cash and paper based instruments. Such systems can reduce risk in two ways: by reducing the probability that the event causing the risk will occur or by transferring risk to another party.

118. With paper based payments, the main risk is associated with fraud and leakages. Payments can be made to someone other than the intended recipients of the funds or in incorrect amounts. This is also true for incoming payments (utilities, taxes) where there is potential for loss of revenue to the government.

119. Government programs also suffer from eligibility risk, that is, the risk that the recipient of the payment is ineligible to receive it. This again is true for both outgoing (benefit payments) and incoming payments (incorrect billing) which can hamper government operations.
120. Another type of risk is the risk of an incorrect payment - either a wrong amount paid to the right recipient or a payment made to someone other than the right recipient.[16] Further, there is also the risk of incorrect amount collected, which then needs to be resettled with the originating party.

121. If the commercial banks are used to provide a payment to a recipient, the risk to the government lies in ensuring that the correct information is provided to the bank for transferring the amount into the recipient's bank account. Hence controls need to be in place in the government payment system to ensure that correct payment instructions are provided to financial institutions as they become the bearer of risk during the payment process.

122. Obviously, there is a risk that entitlements may be wrongly calculated or may not be recorded. However, the use of electronic payments also carries certain other types of risks such as:

[16] These two conditions are not mutually exclusive; an incorrect amount could be paid to the wrong recipient.

- Settlement risk: arising from liquidity or credit risk problems of the participants;
- Fraud risk: usage for unlawful activities like money laundering;
- Operational risk: inability to use an instrument due to operational problems;
- Data theft: resulting in compromise of sensitive customer information.

123. Governments continue to adopt electronic payments for risk management purposes, however, security risks have also kept pace with the use of electronic payments and have become even more complex as payment instruments have become more closely integrated with the newer innovations such as the internet and mobile phones. Data security and customer information protection are some of the risks a typical electronic payment instrument and its users are exposed to.

124. For G2B payments that use card based products such as purchasing cards, fleet cards, travel cards, etc., risk management can be a challenge in the form of non-compliance with guidelines established by the administering government agency for the use of such products. Typical risk management issues faced in such programs include:

- Lack of separation of duties among key functions of procurement including making purchases, authorizing purchases and payments, certifying, reviewing, auditing, etc.
- Lack of measures to check creditworthiness of government employees before they are given payment cards for travel or are entrusted with procurement responsibilities.
- Inability of program managers to monitor payment delinquencies on the part of accountholders or persons responsible for procurement or travel.
- Lack of procedures for erroneous or improper purchases.
- Lack of reporting or data management tools that allow program administrators to monitor program activity and identify hot points.

125. A major category of risk, often given insufficient focus, is disaster recovery planning. The process of assessment of the potential risks to the government payments which could potentially result in the inability for the government to function or to perform its day to day operations. The vulnerabilities could be many, from natural disasters to man-made (perhaps an act of sabotage) ones, however, the government payment program managers should be ready with a process to maintain business continuity.

126. Finally, as is evident by many recent events, government payment programs can also be affected by global economic and financial crises. The challenge is in predicting the impact of such events on government payment programs such as, increased demand for entitlement payments (volume spikes), etc. In the wake of such developments, it is very important for the government payment programs to create crisis management contingencies related to such events.

3.4 Market structure and competition

127. Payment service providers engaged in the provision of government payments services require competitive access to the domestic payment systems. Since government payments and collections have the potential to promote financial inclusion, ensuring competitive access to payment systems for non-bank financial institutions can contribute towards this public policy objective. In such cases, the high cost of indirect access to the payment systems might prove to be a deterrent for entrepreneurs and other FIs to successfully participate in the evolution of the payment programs.

128. Furthermore, lack of interoperability may also foster anti-competitive practices. An interoperable environment would enable participation of multiple participants and thus enable competition amongst the providers of the particular payment mechanism.

129. Government expenditure and collections can be considered a scale business and in a lot of cases retail payment service providers that engage in such services make significant upfront investments to build the necessary payments infrastructure.

130. This is especially true in countries where government expenditures and collections are also seen as a way to promote financial inclusion. Either due to the early market entrants who make significant investments or due to government induced arrangements where only public sector banks can provide such services, such practices are anti-competitive where significant entry barriers for new entrants can emerge. These practices can be summarized as follows:

131. Control and management of the expenditure and collections services in bulk by financial institutions due to the large scale of government payment programs, large network of POS/ATMs and restricted access to the payments infrastructures for the customers of other entities. This may also be due to the use of domestic card schemes by national governments especially for government benefits and salary card programs.

132. In many cases, such schemes are not interoperable with other prevalent schemes in the country. Such practices though meet the objective of providing low cost payment instrument but do not promote competition, innovation and wide-scale adoption by the users. Additionally, a large number of merchants or recipients of payments build businesses processes around such payment arrangements which further entrenches the payment instruments they accept and a fully interoperable environment. This restricts entry for newer types of payment schemes.

133. Some markets prohibit non-banking entities from providing any type of retail payment services, even those not directly linked to a bank account. Such policies restrict the use of innovative payment instruments for government programs (e.g. prepaid cards).

3.5 Governance and transparency

134. Good governance can guide the relationships between various stakeholders that facilitate the implementation of government payment programs. Good governance is consistent with the overall public policy objectives of safety and efficiency and can be achieved through a balance between cooperation and competition among the policy makers and the services providers. A good governance structure that allows maximum freedom but also fills in the regulatory gaps in instances when the participants within the payment systems cannot self-regulate, preventing the abuse of power and self-serving conduct. Additionally, it restricts imprudent and high risk behavior by individuals, and resolves conflicts of interests between competing parties.

135. Proper governance and transparency rules can thereby help in exercising oversight on both internal and external payment programs and reduce high risk activities. Transparency promotes accountability and provides information for citizens about what the government is doing and how to engage and interact with it. Government departments and agencies should also solicit public feedback for improvements and to identify information of greatest use to the public. Authorities should also strive to create audit, evaluation, and investigative capabilities in an independent format to identify and combat potential sources of malpractice, corruption and general wastage in the system. These measures not only make the overall program more efficient but will also create trust and acceptance by the users of the services.

136. ***Government transfers***: the development of central treasury model and the TSA and other related modules is related to the government's objective of maintaining transparency in the overall fiscal management system. An effective TSA allows to establish control over spending – but does not provide a complete solution on its own. The improvement of fiscal transparency provides overall framework including reforms targeting treasury systems. With regards to transparency and governance, such reforms typically are designed to target the following issues faced by governments in implementation of TSA and other related systems:

- Lack of effective mechanisms for disclosure of fiscal information including level and composition of government debt and spending. This is also related to how governments typically report its budget to the public and whether certain benchmarks are maintained.

- Lack of standards and procedures for internal government accounting and procurement which are equally accessible, understood or practiced by all agencies that participate in the treasury systems.

137. ***Government expenditures and collections***: governance and transparency issues can be bundled into two key areas for payments and collections.

- Governance and transparency related aspects in the selection of payment services for various types of government expenditure and collections programs: governance incorporates the processes by which public sector entities and their resources are controlled and regulated. This mainly refers to the processes related to expenditures and collections conducted through the use of retail payments service providers including commercial banks. The issues related to governance and transparency in selection of the payment service providers for such services can be summed up as follows:

- Lack of established guidelines for government agencies to conduct procurements and disburse/collect funds from persons and businesses through the use of commercial banks and other non-bank financial entities. This includes a lack of an open and competitive tendering process for such programs and the dominant state owned financial institutions by default get the contract for provision of such services. This may help the government to exercise its public policy objectives of promoting financial inclusion and safety and efficiency in payments as it can directly control the outcomes, however, such practices may restrict the use of most competitive technology and price for the provision of such services, and may also restrict innovation in the provision of such services.

- There may be a tendering process prevalent for government payment programs but it is not open, fair and competitive and lacks transparency in the post award disclosures and challenge procedures providing remedial actions for the bidding payment service providers.

- The actual procurement of goods and services or G2B payments across the government sector in a country may not be flexible or advanced enough to allow use of multiple procurement methods including the use open, selective bidding for high value contracts and the use of purchase cards and other electronic payment methods for transactions below a certain threshold. As an example, in the USA, the GSA mandates the use of purchase cards for transactions below $3,000.

- Lack of clear audit guidelines that require a regular audit of government procurement and disbursement/collection practices. Such audits, depending upon how the guidelines are set, typically check employees' professional qualifications, conflicts of interest, performance of the financial institution contracted to make payments and collections, and compliance with other government procurement/disbursement/collection rules and guidelines. In many environments, such guidelines may actually exist, however, either audits are not done on a regular basis or the results of the audits are not properly enforced.

- In a broader sense, applicability of principles that balances the tradeoff between the use of legal and regulatory framework for regulation of payments industry versus industry self-regulation. Excessive reliance on this type of 'command and control' regulation by government can have significant implications for competition and economic performance, and may not be effective in meeting the broader public policy objectives. Closely linked to greater access to industry knowledge and expertise is the issue of efficiency and costs. Self-governance typically allows greater access to industry specific information maintained by participants in the payments industry implying a lower governance cost structure. Payment systems are a network industry and their regulation can be a complex matter which can add challenge to designing an appropriate governance framework. Some of these challenges are listed include:

- Many service providers participate and interact, including different types of service providers, such as card issuers and acquirers, ACH infrastructure owners, the users of the system – persons and businesses that make and collect payments, the public authorities, etc. Lack of coordination between the activities of the different players in the value chain may result in operational inefficiencies in the payments industry.

- Some retail payment service providers may be direct competitors in their respective activities such as payment networks and card issuers may compete with one another to attract end customers, while at the same time may need to cooperate with one another to establish commonly agreed standards and rules that govern the industry practices for the purposes of ensuring the safe and efficient operation of the payments system.

- Some network industries, including payment systems, operate as two-sided markets, with two distinct, interdependent groups of users. In the payment systems context, this requires balancing the interests of payers with the interests of payees, having regard to the interaction of network effects between those two groups.

- Network industries, and particularly payment systems, often require high levels of infrastructure investment, for example to cater for new technological developments and new technologies to comply with security and fraud standards. Once a network technology, such as a particular payment system, becomes ubiquitous it may become entrenched, making it harder for other technologies to develop and prosper and may restrict future innovation.

138. Given these challenges, there is always an issue facing regulators on to what extent the payment systems should be under government regulation versus industry self-regulation. This is to ensure that the public policy objectives are met for safety and efficiency, financial inclusion and good governance and transparency in payments.

3.6 Cooperation and partnership

139. Cooperation and partnership between various stakeholders is critical to the success of government payment programs. Government payment programs can involve several types of stakeholders depending on the type of the program: with government transfers typically requiring wide-scale cooperation and coordination between public authorities; and government expenditure and collections between the public authorities and the private retail payments service providers.

140. ***Government transfers***: introduction of any new arrangements for intra-governmental transfers including payments and collections require reorganization and re-alignment of the roles and responsibilities of related government agencies, such as the MOF, the Central Bank and the Treasury and their relationships to the line ministries. This also requires fundamental reforms of the functional processes that these agencies perform. The biggest challenge with technology based solutions such as the TSA and IFMIS is that often times they are viewed as simple fixes to processes which may be inefficient.

141. Simply automating inefficient processes does not necessarily make them any more efficient or automating tasks that did not need to be carried out in the first place. It requires changes in management and organizational structures, in workflows and changes in roles and responsibilities. All this requires a review of all systems, functional processes, methods, rules and regulations, legislation, banking arrangements and related processes. New procedures will have to be established and standardized throughout government and all this requires cooperation and partnership between the key stakeholders.

142. Additionally, the interface between the treasury, line agencies and the banking network should be agreed by all the stakeholders and formalized through agreements. Such agreements could provide for the modalities for payment processing through the TSA and RTGS (or another form of interbank clearing and settlement system), and the arrangements for reporting and reconciliation.

143. ***Government expenditures and collections***: the effective implementation of government expenditures and collections can be complex and may require cooperation and coordination amongst a number of public authorities and the payments service providers. To ensure that the public policy objective of safety and efficiency and financial inclusion are met, public authorities, led by the central bank, should encourage cooperation on technical, regulatory and oversight matters as well as on matters related consumer awareness and protection.

144. In situations where implementation of the payment programs involves multiple domestic authorities, public policymakers should ensure that domestic policies are coordinated and that the authorities cooperate at the policy and implementation levels.

145. Government payments are generally part of the retail payments industry which is usually made up of many big and small operators and service providers. As we have discussed, all of the activities of each of these players cannot be regulated all the time. Some level of self-regulation through watchdog groups, industry councils, etc. that can provide an internal system of checks and balances would be helpful. This cooperation is not only to ensure fair competition but also promotes a unified consumer protection goal across many service providers.

4. Public policy goals and financial inclusion

4.1 Public policies goals and needs of stakeholders

146. Government payments include a broad range of activities including intra-governmental budgetary allocations and management of public finances, personal and business related expenditures, collections of government revenues in the form of taxes, fees, etc., and as noted earlier, account for a significant volume compared to a country's GDP. Due to their importance to the national economic development, the public policy goals pertaining to government payments need to be broad as well as strategic. In this context the public policy goals for government payments can be identified as follows:

147. **Provision of modern payments infrastructure** to support availability of payment services and to further economic stimulation is a key goal of any government. For government transfers, efficient payment services imply the availability of treasury systems that promote safe and efficient management of government cash resources. To develop an appropriate payments infrastructure and related IT systems, government can chose commercial banking services; however, it is more effective if the systems were developed by the government itself.

148. Government expenditures and collections, which use the underlying retail payment services, rely on the availability of certain shared infrastructures like payment networks, clearinghouses and ACH's and institution level infrastructure like a centralized account management system, ATMs, POS terminals etc. In the absence of these infrastructures, payment services market may remain underdeveloped or may develop alternatives which may not be fully interoperable with each other. During the last several years, there have been many promising innovations which are being considered for government payments and

collections as a way to address the apparent infrastructure gaps in some country environments. These developments include: (i) widespread adoption of mobile phones as a means to offer electronic payment services, where the payment instructions can be initiated and received on mobile phones, reducing the need to deploy conventional infrastructure like ATMs and POS terminals; and, (ii) use of Business Correspondents equipped with mobile phones and/or custom-built POS terminals to provide banking services reducing the need to rapidly expand traditional banking infrastructure. However, these developments may not reach their full potential without the availability of a centralized payments infrastructure for clearing and settlement. Hence the policy formulation should focus on leveraging the new trends and also focusing on developing the common clearing and settlement infrastructures. In addition to the infrastructure in banking and financial services institutions, the internal systems of Government, billers and other commercial establishments also need to be automated to enable efficient processing of electronic payments.

149. **Safety and efficiency of payments**: safety and efficiency of government payment systems is an important public policy objective due to their strategic importance. At the highest level, safe and efficient management and control of government cash resources is critical including efficiency in the banking and cash management arrangements that minimize the cost of borrowing and maximize the opportunity cost of cash resources. This ensures that all the cash that is collected from citizens or businesses in the form of revenues is efficiently managed and available for government's expenditure programs and making payments to citizens or businesses in a timely fashion. Lack of effective mechanisms for safe and efficient cash management of government resources can lead to: idle cash balances that reside in commercial banks failing to earn market-related remuneration; and, government not having a unified of its resources can incur additional borrowing costs on raising funds to cover short term funding needs. At the payments and collections level, safety and efficiency is also of paramount concern both for the government as well as the citizens and businesses that make or collect payments from governments. Safety and efficiency implies that the payer and the payee both have confidence in the payment instruments used on the right amount as well as timely payment.

150. Therefore, as a public policy goal, the government should promote safety and efficiency in the management of government cash resources as well as the choice of payment services for expenditures and collections from citizens and businesses.

151. **Cost-effectiveness of payments**: there are a wide range of payment instruments used worldwide; however, the proportion of their usage varies significantly from country to country due to a variety of reasons including availability of the underlying infrastructure, customer preferences, socio-cultural reasons, etc. Usage of payment instruments also entail certain costs for the user, with some payment instruments faring better for certain types of payment needs as it may be more convenient for a user to use an instrument despite a higher cost of transaction. As an example of this trade-off, the incidental costs related to usage of an electronic payment instrument like account maintenance fees might make credit transfers and debit transfers unviable for poorer sections of economy, a prepaid instrument might be more suitable for them.

152. Since government payments and collections programs have the ability to promote the use of electronic payments amongst the underserved segments, at a broad level, in addition to the promotion of usage of such payment instruments, the public policy objective should focus on monitoring their corresponding costs of such payment instruments and their impact on consumer's ability to use such payments for various payment needs.

153. Providing appropriate consumer protections in the form of “reasonable” cost, and choice in terms of availability of a wide range of electronic payment instruments, fulfill the overall objective of achieving a optimal level usage of electronic payment instruments.

154. **Benefits to various stakeholders** in the government payments value chain: the interventions designed as part of government’s public policy goals require coordination between various stakeholders in the payments value chain, all of whom gain from such initiatives:

- 155. **Public authorities** can gain efficiency, transparency, convenience, security, by reducing the transaction processing time and costs associated with intra-governmental payments as well as the distribution to and collection of payments from consumers and businesses. Public authorities also gain from achieving the broader objective of strengthening the domestic retail payments infrastructure through reduced risk to systemically important payment systems. Further, increased cooperation and competition benefits the payments industry and improves financial inclusion underserved segments. Lastly, users of electronic payments may also benefit from improved consumer protections and affordability of such payment instruments compared to paper based instruments and cash.

- 156. **Retail payment services providers**[17] benefit when governments strategically introduce electronic payment instruments as a way to pay and receive payments from consumers and businesses. Due to the volume, scale and strategic significance of such payments, there is often sufficient financial incentive for retail payment service providers to participate in such arrangements. Such participation often ensures that the international best practices and innovations are employed in the design and delivery of payment products, which in turn helps promote the overall adoption, propensity and capacity of retail payments within the country.

- 157. **Consumers and businesses** also benefit significantly as governments adapt electronic payment instruments to make and collect payments. Such policies not only result in improving financial inclusion and the overall access of retail payments for a large number of previously unbanked or under-banked consumers but also benefit the existing users of such instruments in terms of more safe, transparent and efficient infrastructure that supports them. Businesses involved in receiving or making payments to governments also benefit from such efficiency gains as payments are more secure, reliable and timely compared to the paper instruments.

[17] Retail payment service providers include commercial banks, non-bank financial institutions, payment networks and clearinghouses, and third party payments processors.

4.2 Government payments and financial inclusion

158. A key public policy goal for many governments of developing countries is to increase financial inclusion of the masses. Consultative Group to Assist the Poor (CGAP) contends that any type of G2P payment program provides an opportunity to increase access to financial services for the unbanked, as approximately 155 million people around the world receive regular payments from their governments, however less than 25 percent receive them via a bank account or through non-cash payment instruments issued by bank and non-bank financial institutions.[18]

159. Empirical evidence has also shown that expanding broad based provision of electronic payments to the unbanked consumers may not only address the public policy objective of improving financial inclusion through the distribution of social benefits, pensions and other government supported payments but may further result in savings and growth at the macroeconomic level. A recent study by McKinsey and company[19] estimated that the Indian Government has the potential to save INR 1000 Billion (1.6% of 2009 GDP) by moving all its Government payments to electronic non-cash mechanisms.

160. It is also important that the market gap for payment service be addressed because improved access to payment services is an important determinant in achieving universal access to broader financial services including savings, credit, insurance, etc. Without proper access to payment services, it is difficult for people to satisfy their payment needs. For instance, in cash dominant environments, almost all transactions must be carried out face to face. Furthermore, it is difficult and unsafe to transport cash for remote transactions. The lack of non cash payment options also limits the overall growth of commerce and economic activity as people do not have safe, transparent and convenient options for satisfying their payment needs.

161. The cost of using payment services including both direct and indirect costs should be reasonable and affordable for all stakeholders involved in the government payments value chain. Since government payment programs are significant in scope and size, they have the capacity to influence the cost and accessibility of the domestic payments infrastructure.

162. There may be a gradation in the level of services and other features included in the payment and financial services, however, at in general terms all types of consumers should have a cost effective, affordable and reliable access to payment instruments and services. This is crucial both in terms of improving the domestic financial infrastructure as well as promoting financial inclusion.

163. If significant sections of a society do not have adequate access to electronic payment services then the usage of cash may continue to remain high; and, these populations may not get the opportunity gain access to other financial products such as loans, deposits, credit, etc. Payment services are a primary, and perhaps the most basic component of financial inclusion. Financial inclusion has been defined in many different ways, for the purposes of

[18] Further details can be found here http://www.cgap.org

[19] The Benefits of E-Payments to the Indian Society, October 2010, McKinsey and Company

this document, financial inclusion is defined as availability of basic financial products to meet the payment, savings, credit, insurance and investment needs of a society at a reasonable cost.

164. Limited financial inclusion in a country may also have perverse effects on the the "demand" for non-cash payment instruments which in turn affects the level of financial intermediation and eventually the GDP growth. The key requirement for accessing non-cash payment mechanisms includes the user entering into a formal relationship with a financial institution like a bank (or in some cases a non-bank institution) that provides support for electronic payment instruments. Satisfying this requirement will typically open discussions on the level of financial inclusion in the country.

165. As a public policy goal - affordable and ease of access to electronic payment instruments and services through government payments and collections programs, is best placed under an overall goal of achieving full financial inclusion. Electronic payment products are based on: (i) an underlying banking account; (ii) a prepaid transaction account; or; (iii) a stored-value instrument. Adequate access to any one of these accounts is a prerequisite to the use electronic payments. However, access to these accounts is a necessary but not a sufficient condition for financial inclusion. Sufficiency implies that there should also be an adequate access to payments infrastructure for the use of electronic payments. For instance, a prepaid card may require an ATM and EFT-POS terminals to support its adoption by the consumers.

166. G2P payments, especially in the form of recurring benefit payments to low-income, unbanked individuals are increasingly being made directly to the poor to establish a social safety net. Some of the best known examples of these payments are conditional cash transfers. These programs have been tremendously successful when the payments have been large and continuous and have actually reduced poverty in some countries. For example, Mexico's Oportunidades program is credited with having a major role in helping slash the proportion of Mexico's population living in extreme poverty from 37 percent to 14 percent between 1996 and 2006.[20]

167. Government policy makers working on such programs can enhance basic savings and transactional services and achieve the goal of reducing the vulnerability of the poor and prepares the way for building assets, participating in the economy more fully, and potentially providing a pathway out of poverty.

168. Many governments are interested in making payments efficient, timely, and cheap as well as less prone to fraud. Electronic delivery channels, as against handing out cash directly from government offices, are increasingly the norm. But programs such as setting up basic bank accounts can also offer financial services, can reduce poor people's vulnerability, help them build assets, and begin to participate actively in the economy.

[20] http://info.worldbank.org/etools/docs/reducingpoverty/case/119/summary/Mexico-oportunidades%20Summary.pdf

5. General guidelines for government payments

169. In order to achieve the public policy objectives, the report sets out general guidelines covering seven key areas: (1) legal and regulatory framework; (2) payment systems infrastructure; (3) risk management; (4) market structure and competition; (5) governance and transparency; (6) cooperation and partnership; and (7) financial inclusion.

170. The seven guidelines correspond to the seven areas of uncertainty pertaining to the implementation of government payment programs as outlined in Section 4 of this report. In this section we shall outline general guidelines for each of these areas - which are not meant to be prescriptive in nature but should just be treated as general guidelines that can be adapted for specific situations.

5.1 General Guideline 1: legal and regulatory framework.

Government payments should be supported by a sound, predictable, non-discriminatory and proportionate legal and regulatory framework in relevant jurisdictions.

171. The legal and regulatory framework concerning financial infrastructure in a country typically includes law relating to contracts, payments, securities, banking and retail payments, debtor/creditor relationships and insolvency. In relation to government payments, while there is no single law or set of laws that are applicable for various types of payment and settlement activities for intra-governmental transfers, expenditures and collections, the existing legal and regulatory framework can address many of the requirements for safe and efficient functioning of government payments at all levels. Wherever certain gaps exist for safe and efficient functioning of a particular type of government payment, specific laws and regulations may be needed to address those issues. Due to the importance of such programs at the national level, the implementation process of the required laws and regulations should be expedited.

5.1.1 Sub-Guideline 1.1: validity of electronic payments.

Validity of electronic payments should be legally recognized.

172. To ensure that electronic payment instruments can be used for government payments and collections, their recognition as a valid medium for payments and collections including the rights of persons and businesses paying or receiving funds to the government have to be in place. If the existing legal framework does not contain such provisions then these measures have to be adopted as part of a broader Digital Records and Digital Signature legislation that creates certainties for transactions conducted in an electronic format. Therefore, such laws and regulations must ensure recognition and functional equivalence between electronic and paper-based transactions, providing for a legal binding effect of such transactions and legal recognition of data messages, electronic signatures and electronic evidence.

173. In environments where electronic documents and transactions are already legally recognized, and the government is authorized to carry out its administrative and transactional functions electronically, the adoption of electronic based authentication and record keeping may also be important to ensure consistency and efficiency of the process.

174. If the authentication process involves a physical signature then this undermines the efficiency in the overall process. The authentication methods may vary according to the levels of assurance and security needed to validate such related transactions including the use of passwords, personal identification codes (PINs), user IDs, smart cards and biometrics, however implementation of such methods are challenging due to high costs and security concerns.

Box 17: Institutional reforms to promote the use of electronic payments in Italy

SIPA is the acronym for "Government Payments Computerized System" and refers to all payments initiated by the Italian Central Government (such as Ministries and other central Departments, decentralized officials). SIPA is based on an agreement (2000) between the main institutional actors of the Italian Government Payments System which are: the General Accounting Office, Digit PA (the Governmental Agency for the innovation in Public Administration), the Court of Auditors and the Central Bank (as State Treasurer).

The main aims of the System were to:
- Introduce ICT in expenditure and reporting procedures in order to ensure reliable data and information;
- Also for effective controls, timely payments;
- Replace paper with electronic data;
- Execute payments using, as a rule, electronic payment instruments

The decision to reform the existing operational framework came from two main needs: to increase the performance of payments procedures in terms of cost reduction, timeliness and process reengineering; to have timely data for both controlling State budget execution and for monitoring general government spending. The main challenge to face was an old and inorganic Treasury services regulatory framework. Even before the year 2000, in fact, the introduction of innovative procedures used to produce new regulation instead of a general reform of the overall framework. In order to simplify the regulatory framework, a deregulation process was initiated. In 1994 new regulation introduced the possibility to promote inter-institutional protocols with the aim of replacing all paper-based documents with electronic flows. The experience made on previous projects led to the creation of SIPA. Apart from the architectural and technical aspects, SIPA is mainly an agreement and a method. The general agreement signed in 2000 is a sort of memorandum of understanding, defining roles and responsibilities of each signatory Institution, identifying the technical architecture and setting which are the steps that every single actor has to make in order to introduce (or to share) a new innovative procedure.

The SIPA has been acting through a strategic Committee, chaired by the General Accounting Office, and a Steering Committee, chaired by the Governmental Agency for the innovation in Public Administration. The technical architecture of the system rests on a gateway between the General Government Electronic Network and the Interbank Network. All payments initiated by 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 Department. In less than 5 years the System has lead to the dematerialization of about 40,000,000 payments; as a consequence of this, in the last ten years the Bank of Italy has experienced the reduction of about 50% of human resources employed in treasury services. The collaboration among different Institutions within the SIPA Committee and a strong strategic commitment were very important for the achievement of this goal.

Source: Banca d'Italia

5.1.2 Sub-Guideline 1.2: role of the central bank.

Central bank should play a key role in promoting reforms of government payments.

175. In addition to its payment systems oversight role, the central bank of a country could champion the need for a specific law or any other equivalent legal measure to address the specific needs of government payments.

176. Since the payments area is a dynamic one both in terms of the technology and payment service delivery models, legal measures should have the flexibility to quickly address the emergence of new payment instruments (e.g. prepaid cards) or payment service delivery models (e.g. correspondent banking). Such an approach has to be a collaborative one which requires support of various government entities as well as the private sector. The central bank could adopt a collaborative approach to oversee retail payments system.

5.1.3 Sub-Guideline 1.3: sound regulations for payment instruments.

Sound regulations for new and innovating retail payment instruments should be enacted.

177. Implementation of specific laws and regulations that promote safety and efficiency in the broader retail payments sector also have relevance for the safe and efficient implementation of government payment programs as these depend upon the country's retail payments infrastructure, especially for expenditures and collections. In particular, the focus should be on creating a broad regulation on electronic transfers that also addresses government payments and covers issues such as mistake, fraud and protection of the user of the payment device that will jointly include innovative payment instruments including ACH debit and credit, electronic money, electronic commerce, and others.

178. For electronic money instruments, such as prepaid cards and mobile payments, appropriate regulations may be needed that allow issuance of such instruments by institutions other than those currently regulated under a country's Banking Law or non-bank financial institutions. In addition to the issuance of such products the regulation must also extend the oversight powers of the central bank to oversee such payment instruments.. For issuance of any innovative payment instruments such as prepaid cards or mobile payments, additional regulations will thus have to be developed to support their issuance by non bank financial institutions. If there is a discrepancy in a country on the application AML/KYC procedures by banks and non bank financial institution then the regulation should also potentially close this loophole to provide an even playing field.

179. For ACH debit, which is critical for promoting the use of electronic payments for non-tax government collections, rules must to be established that allow commercial banks participating in such transactions to complete service requests, including requests for a direct debit funds transfer, within the agreed-upon time stated in the rules. The regulations should be developed to account for a bank's customers, who have signed up for preauthorized direct debit payments, such as utility bill, to fulfill the payment obligation correctly and on time. Mistakes or errors created after a bank neglects to make a preauthorized direct debit payment must be addressed by the bank and the consumer must not be held accountable. If banks mistakenly debit payments from a customer's bank account, the customer should be entitled to a full, immediate refund.

180. Furthermore, direct debit customers should be allowed to cancel direct debit payments at any time by writing to their bank or financial institution. Under direct debit regulations, consumers should be entitled to full disclosure of all procedures related to direct debit transactions including transaction methods, cut-off times for requested debit dates and any reporting obligations for larger debit transactions.

181. Increasingly, business correspondents (BCs) and agents are playing a significant role in making and collecting payments in environments where the payments infrastructure is not well developed. To enable BCs and agents to function properly special regulations may be needed. Such regulations should establish rules and criteria for banks and/or non-banks to appoint agents or BCs. The regulations at a minimum should address the following criteria:

- Eligibility criteria for BCs and agents related to selection criteria, performance of duties and functions and related issues.

- The governance criteria for such entities and their regulation, such as, for an independent business entity with limited liability, as an extension of the bank, or a non-bank.

- Details on activities covered by BCs. This may include identifying customers; account opening and account maintenance including verification of primary information or data; creating awareness about deposits and other payment products and education and advice on managing money and debt counseling, processing and submitting applications to banks, promoting and monitoring disbursing small credits, accepting tax and other government payments, etc.

5.1.4 Sub-Guideline 1.4: integrity and certainty of payments.

Appropriate legal and regulatory framework that promotes integrity and certainty of payments and minimizes fraud and risk should be enacted.

182. A sound legal and regulatory framework is necessary to ensure integrity and certainty of payments, in addition to the other complimentary elements such as, governance and risk management, which will be discussed in subsequent guidelines.

183. Before implementation of any electronic payment program for government payments, such as commercial card programs, a central government agency that oversees the governance of public procurement should develop laws and regulations as well as corresponding internal procedures that may include the following:

- Making arrangements with financial institutions that may be eligible for provision and maintenance of payment accounts to ensure settlement finality.

- Formation and performance of government contracts.

- Competitive and fair public procurement with appropriate attention to cost and pricing.

- There should not be preferential treatment for third party organizations and it should be incumbent upon the government to ensure a level playing field for payment service providers.

- After due process, a preferred merchant program could be implemented with, potentially, a list of preferred suppliers that can improve efficiency of procurement.

- Allowable and disallowable items list, as appropriate, should be included.

- The threshold values of purchases or transactions that can be made using a particular payment instrument.

- Treatment of intellectual property related to government contracts.

- Reporting requirements for agencies and employees.

- Rules and tools for audits that check compliance with government guidelines.

184. Further, important issues related to implementation of new payment instruments such as, designing a payment cards based program for acceptance of taxes and non-tax revenues, should also be supported with guidance by MOF and/or central bank for agencies and sub-national governments.

185. At the highest level, the legal framework should have the provision for payment to government through such instruments. There should also be guidance on what type revenue related payments are permitted on which instruments, and how to address the merchant discount fee issue.

186. For certain payment instruments, such as payment cards, merchant discount fee can vary between one and three percent and there should be a clear guidance on how this will be treated: whether it will be absorbed by the government entity or will be passed on to the tax payer. If the fee is being passed on to the tax payer then appropriate disclosures must be made to citizens and business prior to the payment of taxes and fees. Since the government is acting like a merchant, there should also be guidance for agencies that have POS terminals on the administrative costs involved in installation and maintenance of such infrastructure.

5.1.5 Sub-Guideline 1.5: sound public finance management.

Legal and regulatory requirements for efficient public finance management as related to implementation of central treasury model should be implemented.

187. As a pre-requisite to designing and implementing a central treasury model and related systems such as the TSA, IFMIS, etc. that provide an interface for conducting budgetary and extra-budgetary transfers, it is important to first take a comprehensive view of the overall institutional framework for public financial management systems in a country and then address the legal and regulatory requirements. For such systems it is a good practice to take relevant legal and regulatory reforms prior to the implementation of TSA and related systems. Legal and regulatory measures may include the following:

- Development of a comprehensive banking management law that includes a framework for management of government finances including provisions for:

    - Collections or receipts of payments plus the banking arrangements.

    - Public expenditure management process through the TSA and its linkages with IFMIS modules for controls and appropriations.

- Specific rules for the TSA including its coverage, structure, participation, etc.
- Other aspects of public financial management including borrowing and investing, asset management and control, and reporting and audit.
- Roles and responsibilities of Treasury, MOF and other line ministries or agencies including the role of central bank as the custodian of the TSA.

- Rules and procedures for setting up the TSA at the central bank and for processing government payments and collections against this account.

- Regulations and operating manuals for the implementation of ancillary IFMIS modules to assist with TSA based budget execution process (spending limits, cash allocations, commitment and payment control, payment processing, accounting and reporting).

- Establishment of cash management unit at the Treasury and formulation of the operational procedures for their functioning including interfacing with the central bank for cash management purposes through the TSA.

5.1.6 Sub-Guideline 1.6: consumer protection.

Government payment programs should incorporate adequate consumer protections including appropriate information disclosures and legal recourse.

188. Consumer protection and financial literacy promote efficiency, transparency and deepening of the domestic retail payment infrastructure[21]. Since government payment programs are heavily dependent upon the domestic payments infrastructure, any imbalances in the information provided to the users of payment systems can have a serious implication for consumer adoption, and ultimately achievement of the public policy goals.

189. Government payment programs have the capacity and influence to redress this imbalance, by requiring payment service providers, contracted by the government, to give individuals clear and complete information on which to make informed decisions, by prohibiting financial institutions from engaging in unfair or deceptive practices, and by providing adequate mechanisms to resolve disputes between individuals and financial institutions. Empowering the customers with information and basic rights—and who are aware of their responsibilities—is an important source of market discipline within the financial sector. This also encourages financial institutions to compete by offering better products and services rather than by taking advantage of poorly informed consumers.

190. Government departments and agencies should also solicit public feedback for improvements and to identify information of greatest use to the public. Authorities should strive to create audit, evaluation, and investigative capabilities in an independent format to identify and combat potential sources of malpractice, corruption and general wastage in the system. These measures not only make the overall program more efficient but will also create trust and acceptance by the users of the services.

[21] World Bank Publication, August 2010 – " Good Practices for Consumer Protection and Financial Literacy in Europe and Central Asia: A Diagnostic Tool"

191. Adoption of such measures generally results in a positive externality for the safety and soundness of the broader financial sector as consumers who are empowered with information and basic rights through government payment programs - and who are aware of their responsibilities - provide an important source of market discipline to the financial sector, encouraging financial institutions to compete by offering better products and services rather than by taking advantage of poorly informed consumers.

192. Financial literacy helps consumers understand the information and make risk/return choices that optimize their financial wealth. Consumer protection also improves governance of financial institutions. By strengthening transparency in the delivery of financial services and accountability of financial firms, consumer protection helps build demand for good governance of the sector and the strengthening of business standards in the financial sector. In addition, consumer protection and financial literacy help promote deepening of the retail financial sector, attracting first-time consumers to access financial services and building public trust in financial institutions.

193. Through government payment programs, minimum standards for consumer protection and financial literacy can be created which can be used as baseline for provision of all retail payment services. These standards could be in the form of a Law, regulation, guideline or even a self-regulatory mechanism. Where universal adoption of these standards is not possible, the usage of a service mark to identify compliant organizations could be a useful strategy.

Box 18: Recommendations from study on responsible lending (US Social Security)

Prevailing overdraft practices in the USA have failed to protect the income of social security recipients. Based on a survey conducted by the Center for Responsible Lending in 2008, the following recommendations were drawn for changes to overdraft policies of the financial institutions:

- Federally-protected income from Social Security should not be permitted to be automatically taken to repay overdraft loans and bank fees;

- Banks and credit unions should be prohibited from manipulating the order in which charges clear and the time for which deposits are held to artificially increase overdraft fees;

- In addition, policymakers should take the following steps to protect consumers and provide them with choices and information regarding overdraft loans:

o Require banks and credit unions to provide consumers with the choice to “opt-in” to overdraft loan programs, rather than automatically including it as an account feature;

o Require banks and credit unions to comply with the Truth in Lending Act for high-cost overdraft loans by disclosing their cost in terms of an annual percentage rate;

o To prevent consumers from falling into a cycle of debt, limit the number of high-cost overdraft loans a bank or credit union can make to a customer per year;

o Require banks and credit unions to warn customers whenever an ATM withdrawal or debit card purchase will overdraw an account and give them a choice of whether to proceed or to cancel the transaction; and

o Allow banks and credit unions to cover ATM and debit card POS overdrafts without warning only if the customer has elected, in writing, to participate in a lower-cost protection program that pays overdrafts from a linked savings account or line of credit.

- Finally, older citizens should consider only doing business with banks that allow them to link their checking account to their savings account, or that offer them a less expensive line of credit for back-up funds so they can avoid unauthorized overdraft fees.

Source: Center for Responsible Lending, 2008

194. If such practices are not already prevalent for the retail payment services, through government payment programs Ombudsman services can be implemented to provide the consumers an easy, reliable and cost-effective mechanism to resolve disputes and advice on recourse that could not be resolved bilaterally with the service provider. The figure below captures statistics[22] on the prevalent mode of disputes resolution for financial services.

195. Having access to complete and easy to understand information on the government payment program, including what is allowed for free and what is allowed for a fee should be available. This could be a requirement that the government imposes on the payment service provider as part of their contractual obligation, or could be done centrally through a central bank or alternative information site for all government payment programs. At a minimum, such information could include some high level indicators:

- Account opening fees;
- Overdraft fees;
- Account maintenance fees;
- Per transaction fee paid by payer/payee;
- Account enquiry fees;
- Account closing fees;
- Interest rate charged and method of computation, where credit is provided.

5.2 General Guideline 2: payment systems infrastructure.

Improvements to payment systems infrastructure that have the potential to increase the efficiency of government payments programs should be encouraged.

196. Availability of core financial infrastructure is critical to the safe and efficient functioning of government payments. Due to the diverse nature of government payment programs, the safety and efficiency depends upon a number of factors.

5.2.1 Sub-Guideline 2.1: organization and implementation of treasury systems.

Organization and implementation of central treasury systems should be carefully planned for efficiency in government transfers.

197. A crucial step in implementing a treasury system is to ensure that organizational responsibilities for each element of the system are clearly defined as clearly as possible at an early stage, particularly when major process changes are involved. Clarification of these

[22] Source: Financial Access 2010, World Bank and CGAP.

responsibilities is essential to ensure that institutional and organizational reform proceed in parallel and are consistent with system design and it identifies those users that should participate in detailed reviews of each element of system specification.

198. In the design of treasury systems, the budget function has the primary authority over the budget authorization management and review processes. The Treasury (or Budget Execution Department) generally operates under the general policy guidance of the Budget Department in this respect. In this sense, both data management and organizational responsibilities must be clearly defined as between budget management systems and the treasury system. The treasury system should provide relevant information for each stage of the financial management cycle, independently of the organizational setup.

Box 19: Key processes linked to a treasury system

Level 1 Process	Level 2 Process
Management of Budget Authority	· Budget Apportionment & Allotment · Warrant allocations · Budget Transfers · Supplementary Authorizations · Budget review
Commitment of Funds	· Procurement of Goods and Services (within-year contract) · Procurement of Goods and Services (extended contract) · Creating/filling new staff positions · Payroll commitments
Payments and Receipts Management (or collections)	· Verification of Goods and Services Receipt and Payments · Payroll Payments · Receipts
Debt and aid Management	· Debt Recording and Servicing · Grant receipts · Loan receipts · Issuance of Securities · Guarantees
Cash Management	· Expenditure forecasts · Revenue Forecasts · Cash Monitoring · Borrowing strategy

Source: IMF

199. In addition to the organizational requirements, physical implementation of the central treasury systems such as TSA and IFMIS, including relevant guidelines for the IT service providers, system procedures and operations, maintenance, etc. should be carefully planned and implemented.

200. The underlying applications for the treasury system will need to have the set of modules which perform specific functions to support the functional processes listed in box 19. These can be done through off the shelf application software packages which were originally developed for large financial institutions and the corporations, and are now available for government sector. However, a detailed specifications for each of the Treasury systems modules will still have to be determined and whether one or more of the commercially available off the shelf application software packages would meet the requirements of the entire Treasury system.

201. Broad functional requirements have been developed by the IMF-World Bank[23] for this purpose; however, they will need to be customized for a specific country to take into account country specific requirements. In particular the input and output formats of the various transaction documents, the specific data formats of the various data entities used by the system and the formats of the reports required from the system will need to be specified.

202. However, these requirements do give a sense of the overall functional requirements for a treasury system and could form the starting point for development of a more country specific version that could be used for the acquisition of the application software. In case it is found that none of the commercially available off the shelf application software package has a good fit with the requirements then the application software may need to be custom developed based on these functional specifications.

5.2.2 Sub-Guideline 2.2: interoperability of payment infrastructure.

Adoption of common standards for interoperability within the payment infrastructure should be promoted.

203. The infrastructure for expenditures and collections can be varied and depending upon how this is provided in a country, can lead to systems and processes that are not interoperable or do not have common standards. Government programs should help promote adoption of common technical and usage standards for payment services, which in turn will help promote inter-operability amongst the systems and enable wide-spread adoption by the users of the system. Common standards are the basic requirement for development of inter-operable systems, improvements in efficiency through enabling straight-through processing and providing a consistent user experience. Retail payment systems that support government payments and collections processes involve a multiple levels of standards[24]:

- Customer to financial institution;
- Inter-bank standards;
- Financial institution to customer standards.

204. There have been multiple developments in the area of inter-bank standards like ISO20022, ISO 8583 etc. focusing on data formats for transaction processing. In addition, there have been standards focused on specific areas like authentication - 3D Secure for ecommerce card transactions, EMV for chip cards; data security - Payment Card Industry Data Security Standards (PCI DSS); and, account numbering - IBAN.

205. There are also standards for specific products like SEPA credit and debit transfers, the standards for specific card products by the international payment network brands like Visa, Master Card and American Express. Lack of common standards will result in each payment

[23] IMF Treasury Reference Model

[24] Harry Leinonen, Changing Retail Payments Landscape, 2009

service provider needing to create its own proprietary systems, procedures and in many cases enter into specific business tie-ups with payees and payers.

5.2.3 Sub-Guideline 2.3: automated and centralized account management.

Automated and centralized account management systems should be implemented where appropriate.

206. For government expenditures and collections one of the most important aspects is that the payment service providers, especially commercial banks that utilize their banking infrastructure to make and collect payments have automated and centralized account management systems. For collections, banks may develop their own non-standardized applications the necessary technical interface with the collection and billing systems of government agencies, rules for settlement procedure etc. Also this service is offered only to the bank customers and not anyone who can walk in a branch and make a payment to the government.

207. This makes the whole process of delivering the service inefficient both for the bank and the public sector entities on behalf of which the bank is collecting payments. Availability of a common bill payment standard riding on an existing EFT infrastructure would enable all participating banks and payment service providers to offer bill payment and collection services efficiently, and would also open up possibility of a service provider being able to offer bill payment services to customers of another service provider as well, for (e.g.) through the service providers ATM.

208. This enables a far wider reach for the bill payment services, than would have been possible with the non-standardized organization specific services. On the payments side, use of automated account management systems in commercial banks will enhance the ability of the banks to provide electronic payment instruments, such as debit cards, direct debit and credit transfers.

5.2.4 Sub-Guideline 2.4: use of bank and non-bank financial infrastructure.

Using bank and non-bank financial services entities to provide payment services efficiently should be promoted.

209. Enabling non-bank financial services entities to provide payment services efficiently will also help financial inclusion. In many countries the banking industry is tiered, with many small institutions having a local/regional focus, such as credit unions, co-operative banks, savings societies, postal banks etc.

210. These organizations collectively serve a very large number of customers, but typically have very limited automation of their operations. Facilitating automation of the operations of these entities could go a long way in enabling these organizations also to offer electronic payment mechanisms.

211. One viable approach is for these organizations to collaborate and create a service bureau infrastructure which can be used by these smaller entities to offer electronic payment products, and also link up their service outlets to provide a virtual large service delivery network.

Box 20: Azerpost: use of postal financial network for payments and collections

Azerbaijan is a small country in the Caucasia Region with 9.1 million people. In 2004, small urban and rural areas were not adequately served by the banking and non banking sectors, and lacked adequate payment and broader financial services. The banking sector was represented with 44 banks, of which one public bank largely dominated the sector. Access to payment and financial services outside Baku (capital) was very low, inconvenient and costly. The banks did not see a profitable business case in extending such services outside Baku (as such, they had 199 branches in Baku and only 155 in regions). Microfinance institutions and other non bank credit organizations were mainly operating in the capital. Azerpost, the postal network of Azerbaijan, had a network of 1,200 post offices (POs) around the country and was the only institution providing payment and financial services in smaller urban centres and rural areas. As a classic post office, they provided only three types of cash-based financial services: postal money orders, pensions and social security payments. However, due to low technical capacity and old connectivity system available at the Ministry of Communication and Information Technologies (MoCIT) and other similar factors, the speed of transactions and whole efficiency of services provided were incompliance with the existing standards.

For more than a decade the Central Bank of Azerbaijan (CBA) had played a very active role in launching of more efficient interbank payment systems including a Real Time Gross Settlement Systems (RTGS) in 2001, and a Low Value Bulk Clearing and Settlement Systems (BCSS) in 2002 which completely eliminated paper-based turnover among banks. However, the payment infrastructure did not yet effectively integrate to all the mass payment billers, relative government entities and did not cover the entire territory of the country. Collection of utility bills and execution of government payments were ineffective, costly and slow. Cash was the predominant form of payment in Azerbaijan and the payment card base was low. The State Program for the Development of the National Payment System played as a key promoter, that was approved by the President in 2004 for the period 2005-2007 and aimed at: (a) extending access to payment and financial services for population living in the underserved rural areas; and (b) promoting availability and the use of electronic payment options for bill payments for citizens and businesses throughout Azerbaijan. It was envisioned using a modernized Azerpost as an instrument for increasing access to financial services in the underserved areas by integrating it with the payment system. In that regard, the World Bank's financial assistance was requested for the implementation of the latter part of the strategy.

The project was implemented over 5 years. As a result of the project implementation, broad regional branches of Azerpost are enabled to open and maintain postal accounts, provide wire transfers, issue payment products: debit cards, foreign currency exchange operation, deliver cash and other valuables along with delivery of traditional postal services for the population. At the same time, full integration to local and international payment system being the key goal of the Azerpost was realized. Thus, interface to the CISMP, RTGS and BCSS provided. In order to provide international payments the system is integrated to SWIFT. Moreover, integration to Western Union, Coin-Star and others successfully completed.

At project-end, Azerpost enjoys a substantial amount of its network interconnected and expects to interconnect all the targeted 1,079 post offices through nearly the entire territory of Azerbaijan by the end of the 2nd quarter of 2011. Coupled with its new license, Azerpost is expanding the previously provided financial services (i.e., utility payments and money transfers) and starting to deliver a number of new financial services (post accounts, correspondent accounts, issuance of debit cards, foreign exchange services, transportation of cash). The role of Azerpost in collecting government payments also increased significantly: 11 million payments in the amount of 183 million AZN were processed during 2010 through CISMP. 88.7% and 90.5% of value and volume of total payments were collected by Azerpost branches and divisions. The head office, 59 post branches and 593 POs of Azerpost have already been granted licenses by the Central Bank for providing financial services. This process is going on. Azerpost has already involved in card scheme and issued 200 local payment cards. Now Azerpost conducts negotiations with international card processing companies in order to issue international cards. Successful implementation of Azerpost project facilitated access to financial services even in small urban and rural areas that weren't adequately served by the banking and non banking sectors, and lacked adequate payment and broader financial services.

Source: Central Bank of Azerbaijan

5.2.5 Sub-Guideline 2.5: payment process automation.

Adequate levels of automation should be adopted for government payment programs.

212. As the central treasury model interacts with large value and retail payment infrastructure, automation and integration of TSA with electronic interbank payment system is also essential. The key to efficient cash management of government resources is the effective consolidation and automation of government cash resources. This can be achieved through careful planning and implementation of processes and systems for transaction processing, cash management, budget execution and audit.

- Placement of TSA in the central bank and its integration with RTGS (or equivalent interbank payment system). This has inherent advantages including: safe handling of government cash deposits which minimizes credit risk exposure; efficient management of government liquidity, and central bank's ability to coordinate its monetary policy operations in managing liquidity in the economy with government's cash and debt management functions; cost effective banking arrangements and speedy settlements through its integration with the RTGS system; and clarity of banking arrangements and remuneration policies between the treasury and the central bank (a service level agreement is normally negotiated to clarify obligations and responsibilities when the central bank acts as the clearing house for government operations).

- Implementation of a computerized treasury system (or IFMIS) in conjunction with an advanced communications infrastructure can allow electronic funds transfer from TSA to beneficiaries' account in a commercial bank. This automation is considered good international practice and helps governments with direct deposits of many government payments (salaries, pensions, vendor payments) into beneficiary. This is efficient and less prone to fraud compared to paper based systems. A TSA can be established without an IFMIS, but an IFMIS enhance its efficiency. The advantages with an IFMIS are that any number of sub-accounts that are needed for financial management purposes can be created. It allows for effective interfaces between the treasury and spending agencies on the one hand and the banking system through the RTGS (including commercial banks providing transaction banking services) on the other, so as to reduce transaction costs for electronic payments and revenue transmittals.

213. It is important that during the planning and implementation process of such systems, efforts distributed among key stakeholders throughout government. Therefore, coordinating mechanisms should be created to ensure that a common set of policies, procedures, and standards is in place for managing data and systems government-wide.

214. Manual or paper based eligibility systems used for determination of eligibility and validity of government expenditures and collections are prone to fraud and leakages. As a complement to the government cash management function, such eligibility systems should be developed at an agency or program level. Although the movements of funds to or from the government works through the combination of TSA and the interbank payment system, such eligibility systems provide or collect payment instructions to/from payment service providers who are responsible for paying or collecting payments.

215. While such systems are relevant to most government payments and collection programs, they are critical for the efficient functioning of conditional cash transfer G2P programs where the eligibility and the amount received are dependent on certain rules

defined by the government. Depending upon the feasibility of creating a centralized MIS for such programs, several agencies can also develop simple interfaces that link their databases to a centralized, rules based entitlement engine which operates at a government wide level. Such engines are more common at state or district level programs which are not linked to the cash management function of the central or federal government.

216. The key aspect of centralized engine is to manage payment processes for beneficiary enrolment, event recording, payment execution, and monitoring and evaluation of G2P programs. Such systems streamline and automate the payment process. The automated system is typically accessible through an online tool available at centers where beneficiaries enroll for programs. Agency staff is responsible of inputting/updating information concerning the beneficiary directly into the centralized MIS system. The entitlement engine then exchanges payment processing information with the payment service provider that was chosen by the beneficiary for receiving payments. These options could be EFT, card or other innovative mechanisms. The payment service providers are also responsible for providing recipients with the access points (e.g. ATMs) as well as financial education materials and customer service and their activities are generally governed by the prevailing central bank regulations for payment services. Wherever feasible, the centralized system should interface with as many conditional or unconditional programs to ensure consistency and efficiency in the government wide payment process. This is because in many instances, one beneficiary may receive multiple payments (e.g. child support and unemployment benefit). Their design framework should also be flexible enough to accommodate changes to existing programmes and integrate with new banks or payment service providers.

Box 21: Automated, rules-based entitlement system for CCT in Bihar

Based on the recommendations from a recent study conducted by the IFC-World bank team for the Bill and Melinda Gates Foundation on improving efficiencies of health related G2P payments, the Government of Bihar (GOB) is considering implementing a rules based entitlement engine that will automate the determination of G2P entitlements, and in the process separate the payment approval and payment processing functions which previously contributed to delayed or incomplete payments to beneficiaries. One of the key components of conditional G2P payments is the program MIS - also known as the entitlement engine - which is responsible for 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 the payment service providers to post payments in recipients' bank accounts or payment instrument of choice. The IFC-World Bank proposed entitlement engine for Bihar – 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 state government. The system is designed to handle payments for multiple programs and as a rules-based system it will require detailed information on the types and amounts of payments that need to be made. This should consist of configuration data based on government policy, such as the amount of incentives to be paid to health workers. Using configuration data allows system parameters - such as incentive payment amounts - to be adjusted without requiring a programmer to change the application. The HOPE system will make extensive use of configuration data for each health program that it supports, enabling policy changes to be implemented quickly and efficiently without changes in the underlying software. For risk management purposes, accountability and segregation of duties are key conditions for defining user roles and responsibilities in HOPE. One challenge in developing an automated payment system is the lack of computer skills and sophistication among users. Many recorders of events or conditions that trigger G2P payments, such as medical officers on duty for births, are not computer literate and cannot be expected to enter data in the case tracking system that monitors the event. It is expected that the data will be recorded after the event, with data entry done by the MIS data entry staff. The HOPE system is designed to ensure segregation between data entry of events and approval of payments. There should be a clear audit trail of payments and the events that triggered them. The expected benefits of the system are: compliance with Government of India policy for conditional G2P payments; ability to monitor recipients' eligibility overtime and corresponding G2P payments; centralized inventory of all events that trigger cash payments combined with payment processing and tracking allowing for more accurate audits; ability to generate payment instructions to multiple payment service providers using different payments instruments (prepaid cards, bank accounts, smart cards, mobile payments, etc.); payment notification for recipients.

Source: IFC-World Bank Project Study for Bihar G2P Program, 2010

5.3 General Guideline 3: risk management.

Government payment programs should manage risk through comprehensive planning and monitoring.

217. As described in Sub-Guideline 2.5, automation of payment processes goes a long way in ensuring that the electronic payment systems satisfy the desired objective of safety and efficiency for government payment programs. Furthermore, there are other appropriate standards for risk management that must be enforced.

218. We have discussed how safety of government cash resources can be enhanced using a central treasury model. Further, the implementation of a computerized system (TSA, IFMIS) in conjunction with an advanced communications infrastructure can allow electronic funds transfer from the treasury to beneficiaries' account in a commercial bank. This eliminates the payment delays, minimizes credit risk and also reduces operational risks.

219. A benefit entitlement system containing details of beneficiaries can help reduce the eligibility risk in which the information on person or business receiving or making payment is inaccurate. The other risk is the payment risk in which the payment service provider pays the wrong amount due to inaccurate payment instruction provided by the government agency. Automation of eligibility systems for payments and collections and developing adequate interfaces with the payment services infrastructure is the appropriate way to handle such risks related to fraud, leakages and wrongful payments.

220. Within the infrastructure of the government payment programs, standards should be developed to cover the protocols for communications, data entry, editing, and updating screen input and output formats, back-up and recovery, security, contingency and technical and user documentation. This reduces operational risk associated with various such payment programs. There also needs to be strong procedures in place for protecting sensitive customer information which could be prone to high data theft risk.

221. Government procurement programs must ensure that proper guidelines and procedures are in place for separating duties of employees among key functions of procurement. Payment programs should include standard credit checks before entrusting credit responsibilities to employees. Along with the internal procedures to protect against fraud and mismanagement in procurement, proper data mining, reporting and auditing tools must be in place to reduce risks.

222. Government payment programs should be ready with a process to maintain business continuity in a proper documented format in case of natural disasters or man-made events. These could also include service level contracts with service providers, availability and uptime requirements, back-up and restoration procedures, etc.

223. Finally, it is very important for the government payment programs to create crisis management contingencies related to systemic financial crises and other macro-financial events. Often, these events include externalities that are larger in scope than the payment program managers, however, planning and discussion on potential impact to payment programs should take place with appropriate contingency planning.

5.4 General Guideline 4: market structure and competition.

Competitive market conditions, including appropriate access to domestic payment infrastructures, should be fostered.

224. To ensure that the access to domestic payments infrastructure for government payments and collections is competitive, and it does not lead to the development of parallel infrastructures that are not interoperable and do not satisfy the overall public policy objectives, careful monitoring and oversight of aspects related to anti-competitive behavior like exclusivity arrangements, unfair or denied access to infrastructure etc. is required.

225. For the main types of payment services used for government payments and collections, ACH and payment cards, authorities should establish an arrangement where they can monitor the activities of market and system participants' over time. This can be done through establishment of a formal stocktaking approach.[25] The actual investigation and decisions on these aspects could be the responsibility of other specific authorities, but inclusion of monitoring of these aspects in oversight activities of the central bank would help in identifying such instances faster and taking remedial action.

226. The public authorities could include a rigorous and sustained analysis which evaluates the economics of the a particular payment service, e.g. payment cards, ACH, etc. in the country overtime and establish appropriate regulations concerning pricing models and other factors influencing the provision of services in the market.

5.5 General Guideline 5: governance and transparency.

Government payment programs should be transparent and accountable.

227. The measures for fiscal transparency developed by the IMF in 1998: *Code of Good Practices on Fiscal Transparency – Declaration on Principles*, 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 the overall health of the fiscal management system – improvement of fiscal transparency should be expected to lead to improved fiscal management decisions and sound fiscal policies. Countries should adopt these in conjunction with the implementation of their Treasury Systems. Such measures can be used as benchmarks to set priorities for reforms and coordinate efforts between various agencies that are relevant for the operation of the TSA. These include:

- Clarity of Roles and Responsibility: 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. This requires that far as possible all extra-budgetary funds should be handled by treasury or, at a minimum;

[25] Also refer to the World Bank methodology for retail stocktaking which is being prepared in association with Banco Central do Brasil and European Central Bank.

reports by extra-budgetary funds should be consolidated within the treasury system, applying at least equivalent standards of accounting policy, timeliness and periodicity.

- Governance of treasury systems: Treasury management should be governed by comprehensive laws and administrative rules applying to budgetary and extra-budgetary activities. Any commitment or expenditure of government funds should have a legal authority. Periodically, the legal framework must be reviewed and modified to ensure effective treasury operations.

- 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, an advance release date calendars for fiscal reporting to the public should be announced.

- Transparent procedures for procurement and public reporting: For transparency purposes, the treasury system must be comprehensive and should be adequately integrated with all relevant treasury modules. The system should provide a reliable basis for assessing payments arrears. To ensure effectiveness of the treasury systems, procedures for procurement and employment should also be standardized and accessible to all interested parties (see below). Lastly, the 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 (e.g., bank borrowing and bond issues) should be provided.

228. To achieve the transparency and good governance objectives in government payments and collections, it is important that there are standardized guidelines developed and are available to all government agencies and line ministries for the process of selection of payment service providers for provision of government payment and collection services. Such services can include government procurement practices, distribution of government benefits and transfer payments, and collection of revenue and fees. The guidelines have to be transparent as well as clear about the types of payment instruments that can be used for which payment or collection service. For instance, combination of ACH and prepaid card may be used for payroll and pension payments; definition of threshold values for government procurement where goods and services above or below a certain value may be subject to a specific payment method. The larger the value of payment transaction more transparency is needed in the selection of the payment method and the payment services providers.

229. Upon setting up the criteria, further guidelines – either internal to a government agency or at the intra-governmental level must be developed that clearly define operational rules and procedures including monitoring of fraud and security risks associated with such payments. The goal of these guidelines should be to standardize the implementation of more efficient payment methods for all procurements that require a non-cash payment[26]. Standardization can help: Reducing administrative costs and time for purchasing and paying for goods and services; ensure the most effective controls are in place to mitigate the risk of fraud, misuse, help monitor policy compliance and inform management decision-making to drive a more cost effective card program.

[26] Such thresholds may vary from country to country and will be dependent on the legal framework for public procurement.

5.6 General Guideline 6: cooperation and partnership.

Cooperative ecosystem within the government authorities and with those within the payment industry should be fostered.

230. Implementation of the TSA and other related modules mainly require coordination between public authorities for program definition and implementation. Commercial banks play an important role; however, their role is not central to the process of implementation of a TSA. The approach typically advocated by the IMF and the World Bank is that the key stakeholders establish a steering committee and working groups responsible for program implementation. Steering committee can provide policy input and guidance, and the working groups can be responsible for handling day to day operational matters and could be the vehicle to provide user input to the technical team responsible for implementing the project. It will also establish systematic data sharing arrangements, protocols, and schedules between the various systems so that all agencies have access to financial data as-required.

231. In the case of a TSA these groups would include representatives from the Treasury, other departments of the Ministry of Finance, the Central Bank, the line ministries and spending units, and the revenue collection agencies. During the early planning phase and design phases of the project, senior functional management input is particularly important. The main skill requirements for the design phase are in-depth knowledge of the functional area and a managerial capacity to ensure that the project is accepted by users within the functional area. The technical aspects become important only during the later implementation phases. The steering committee and working groups would ensure sponsorship from the highest levels of the functional areas involved in the project and participation from the widest possible range of users. They will also ensure that the project is owned and adopted by the users once it is completed.

Box 22: Cooperation between Mexican public authorities and the commercial banks

In Mexico, one of the roles of the Central Bank – Bank of Mexico (BoM) is to act as financial agent for the federal government. Among other things, this includes the disbursement and collection of payments that the Treasury (Tesorería de la Federación - Tesofe) performs on behalf of the federal government. In 2007, the Mexican Federal Treasury and the Central Bank initiated a project to establish a Treasury Single Account (TSA) in order to improve the financial management of the federal funds. The TSA includes the collection of taxes and the disbursement of government payments via the Central Bank's real-time payments system (SPEI) of all the payments that the federal government does to businesses (service providers, contractors, etc.) and its employees (payroll, incentives, etc.). The goal was to set up a process to pay directly from the Treasury´s account in the Central Bank to the bank accounts of the beneficiaries.

In October 2008, the Central Bank facilitated the connectivity between Tesofe and SPEI which became the main tool to accomplish the task. By December 2010, the total number of G2B and G2P payments processed by SPEI surpassed 1.5 million per month, with a peak of more than half a million of such payments in one single day. Prior to the implementation of the TSA and SPEI, the federal agencies had individual agreements with commercial banks to disburse their payments. Tesofe wired the budgetary funds to the agency accounts in commercial banks, and an agency would have under their discretion the management of the funds and the payments to be made from their accounts. In all cases, the arrangements with the banks included payment services through tariffs but mainly through at least 2 or 3 days of float for the distribution of electronic payments.

The federal agencies had many bank accounts in the commercial banks and, for the payment of the payroll; the employees were forced to open an account with the bank that the agency had agreement with. The Tesofe and BoM teamed up to be the driving forces behind the project, including implementation of a successful legal mandate government for the use of TSA as the starting point. They then defined responsibilities among all participants, which included other government agencies and commercial banks, and coordinated the overall implementation process. The government agencies and ministries adapted their processes and systems to make the payments through Tesofe and, at the same time, reviewed their agreements with the commercial banks.

The commercial banks also made technical and operational changes to be prepared for the increase on volume of payments that the used to process in their SPEI connection. In order to coordinate the project, Tesofe and BoM set up a working group with the Mexican Banking Association (ABM) that met every two weeks, during the 8 months that lasted the implementation process. The working group identified the IT and operational changes needed and defined a critical route to complete the project. Some of the key operational adjustments made to facilitate the implementation included:

Modification of SPEI's opening time in order to give commercial banks more time to receive and process the payrolls during the night shifts. Since commercial banks complained that the number of payments was potentially large and their IT applications might not be fast enough. SPEI now opens at 7:30 p.m. (Mexico City's time) the day before of the value date of the payments. The system remains open until 5:30 pm of the following day. 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. The capacity of connection between Tesofe and BoM was increased to facilitate faster transmission of large volumes of data. Many tests were run, both bilaterally and multilaterally between Tesofe, BoM and the commercial banks for the financial transactions. A series of tests were also conducted with each agency and certifications provided to each one of them for (a) testing their procedures and systems with Tesofe, and (b) to check that the payments would reach their employees.

Source: National Treasury of Mexico and the Bank of Mexico

232. For governments to achieve their public policy objectives of safety and efficiency in government payments and collections as well as the promotion of financial inclusion and access to payment services, active cooperation and partnership with the payment service providers is a prerequisite. Commercial entities – banks, payment networks, third party processors, and other non bank service providers – that own and operate payment systems supporting government payment and collections processes interface and manage the relationship with the end users of the payment systems – citizens and businesses. Therefore, during implementation of any government payment program it is critical that the role of private sector is well defined. The primary role played by such entities is that of a “financial agent” of the government which designs and implements the program on behalf of the government and also maintains the relationship with the end customers as required by their contract with the government.

233. Ideally, the selection process for such agents should be on a competitive basis; however, in certain special circumstances if this is not feasible then the government can nominate a commercial bank to act as the financial agent. In addition to the day to day operation of the program, the responsible entity also has the responsibility towards ensuring that they comply with applicable laws and regulations, including AML/CFT requirements. They should also implement appropriate governance and risk management processes to help improve the safety and soundness of their services and to meet their fiduciary responsibilities to their customers.

234. Public authorities also have a key role in ensuring that the cooperation and partnership with the private sector is productive and helps them achieve their policy objectives. This can be conducted either at a project level or more broadly in the form an ongoing dialogue with the private sector on areas of cooperation. In areas where public authorities do not necessarily see cooperation and partnership as the best mechanism for addressing certain market failures such as product pricing, consumer protection, etc., they could resort to establishing guidelines or passing regulations these however, before doing this they should weigh the perceived benefits of such regulation against the costs of compliance and possible market distortions.

235. The public authorities, especially the central bank, also need to ensure that they are vested with adequate legal powers to effectively oversee the broader domestic payments environment as a whole. To address the demand side barriers and issues relating to financial

inclusion and access to payment and financial services through government payments programs, commercial banks should be encouraged to create low-cost payment and banking products. Additionally, the legal and regulatory framework should be adopted so that key non-banking financial institutions like postal banks and smaller banking institutions like co-operative banks, credit unions etc., are allowed to issue innovative payment products and also be present in areas where commercial banks do not operate. The public authorities should also address the supply side barriers that payment service providers face in providing payment services including availability of a wide-spread acceptance network to their customers. Enable the suppliers of payment services to innovate to reduce cost, promote and incentivize customers and in general allow necessary freedom to innovate.

Box 23: US Treasury Direct Express Card

The Financial Management Service (FMS), a bureau of the U.S. Department of the Treasury, provides centralized payment services to federal agencies and operates the federal government's collections and deposit systems. In 2009, FMS collected nearly $2.86 trillion in government revenues and disbursed nearly $2.3 trillion to more than 100 million individuals through Social Security, veterans' benefits, income tax refunds and other federal payments.

In 2005, FMS kicked off the Go Direct® campaign, an ongoing public education effort that encourages benefits recipients to transition from paper cheques to electronic payments – reducing the time, materials, and cost of mailing cheques, while providing recipients with a safe, convenient, and highly reliable payment option. Underscoring the campaign's tremendous success, today nearly 80% of the almost one billion annual FMS payments are electronic.

However, within the Social Security Administration (SSA) alone, there were approximately 10 million Social Security and Supplemental Security Income (SSI) beneficiaries receiving paper cheques each month. An estimated four million of these recipients do not have a bank account and cannot enroll in direct deposit. Working closely with the SSA, FMS' goal was to create a cost-effective electronic payment solution that provided additional safety, convenience and usage features for Social Security and SSI recipients without a traditional banking relationship. Aside from the fixed costs associated with their disbursement, cheques can also be delayed, lost or stolen. When this happens, recipients are required to file a claim which involves processing the claim and the eventual issuing of a new cheque. As FMS reviewed alternative electronic payment solutions for Social Security and SSI recipients, FMS recognized that many cheque recipients were not customers of mainstream financial institutions or familiar with their products and services, such as debit cards and cash back at the retail point of sale. The objective became clear: create a solution that was easy, simple, and no cost or low cost to recipients.

In October 2007, US Treasury issued a RFP to commercial banks seeking one or more qualified "financial agents" to provide prepaid debit card solution for unbanked recipients. Upon completion of the RFP process, FMS and SSA launched the Direct Express program in April 2008 with the selected financial agent and payment network. Within the next two years, more than 860,000 Social Security and SSI recipients – nearly a quarter of the total without bank accounts – had already enrolled in the program.

A 2009 survey of Direct Express cardholders, revealed that the program's goals had already been achieved based on the overwhelmingly positive reaction by cardholders to the benefits of electronic payment – 95% were satisfied with the program and 86% said they would recommend it to family members or friends who receive a federal benefit payment. According to recipients, the top three reasons for their high satisfaction included: 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; safety – no need to go to a cheque cashing provider and carry around lots of cash; and convenience – payment is received no matter where they are with access to millions of retail stores they visit in their everyday lives where they can use the card. Beyond these advantages, the program also provides significant cost savings to the U.S. government and taxpayers.

It costs $1.03 to issue a federal benefit payment by cheque and only $0.10 for an electronic payment. Therefore, by converting from paper to electronic, the potential cost savings are $0.93 per transaction. Building on the tremendous early success of the program, FMS is working with other US federal agencies such as the Department of Veterans Affairs and the Railroad Retirement Board – to leverage the program and drive further cost savings.

Sources: US Treasury FMS and MasterCard

5.7 General Guideline 7: financial inclusion.

Government payment programs should incorporate adequate measures to promote financial inclusion.

236. Coupling financial inclusion with electronic G2P payment mechanisms can greatly enhance its development impact as the cash payments to recipients are replaced by non-cash payment instruments, which have the potential to deliver the funds more safely and efficiently. Such payment instruments contribute to reduction in risks of leakages and fraud due to improved quality of the information flows and a safer guarantee that the payments reach the right people. These instruments can also be leveraged to accelerate access to financial services such as deposits, loans, remittance services, and insurance. This strategy may also improve access to financial services in the surrounding communities because the payment infrastructure used to deliver cash transfers can also be used to deliver financial services to non-beneficiaries. For example, a banking outlet that has been installed to support G2P payments can also be used to provide other financial services to the village population, such as deposit accounts and remittance payments. Delivering the benefit of access to financial services for the wider community can increase their support for a scheme from which they would otherwise receive no direct benefit, and has the potential to improve the business case for the payment service provider.

237. Whereas G2P payments are the primary mechanism through which financial inclusion can be promoted, P2G payments or collections also have the potential to promote financial inclusion. Even unbanked individuals have to pay for government services including utility payments and such payments can be facilitated via a financially inclusive account to reach the unbanked.

238. A financially inclusive account has three main characteristics:

- It provides safe storage,
- It provides transaction capacity, and
- It is easily accessible in terms of cost and distance.

239. Providing unbanked G2P recipients with financial services could strengthen the development impact of G2P payments. A growing body of evidence shows that financial services enable people to better withstand shocks, build assets, and link into the wider economy.[27] In particular, it can reduce vulnerability to shocks, smooth consumption, encourage savings, provide benefits to non-beneficiaries, and possibly contribute to graduation from grant dependence.

240. Identify high-level payment options to formulate a payment strategy:[28] To prepare for a financially inclusive payment system, governments should assess various elements of the G2P program and the context in which it is implemented. This includes:

- *Understanding the program context*: what are the objectives of the program, what are the budgetary parameters, what is the timing?

[27] See *inter alia* Dupas and Robinson (2008); Ssewamala, Alicea, Bannon, and Ismayilova (2008); Chen and Snodgrass (2001); Sherraden (1991).

[28] This section on formulating a payment strategy comes from DFID. 2009. "Designing and Implementing Financially Inclusive Payment Arrangements for Social Transfer Programmes." London: DFID.

- *Understanding the profile of target beneficiaries*: where are the beneficiaries located, what is their usage of and attitude towards financial services, what is their exposure to and perception of the various types of electronic payment instruments?
- *Assessing available payments infrastructure*: What is the status of the information and communications technology (ICT) infrastructure that supports the payments infrastructure both traditional (ACH and card based) and innovative (mobile payments, etc.), how expansive is the existing branch network of banks and ATMs, are there other agent networks that can be leveraged as payment points?
- *Assessing potential payment service providers*: how well developed is the retail financial system including accessibility of payment and settlement systems by the payment service providers, which financial institutions serve the low end of the market, which entities have provided payment services for G2P programs, which providers have the best capacity to do so ?
- *Identifying any barriers in the regulatory environment*: can bank and nonbanks use agents; can nonbanks issue e-money, what are the KYC procedures for account opening?

241. Certain characteristics of G2P programs affect the business case for payment providers and governments: Providing low-value transactional or savings accounts to a previously unbanked customer segment can prove to be expensive and cumbersome. G2P schemes that are best suited to financially inclusive payment arrangements have three characteristics.[29]

- Large number of recipients to provide the scale needed to attract and retain the interest of financial institutions.
- Large payments value relative to a beneficiary's income to provide a greater potential for float revenue.
- Frequent schedule of payments not scheduled to end in the short term to provide dependable fee income and to encourage account usage by beneficiaries.

242. A transition to electronic payments and financially inclusive payment arrangements should not add more inconvenience and/or expense to the payments process for the end beneficiary: While cash can be expensive for the government and lead to leakage throughout the payment process, it can also be convenient for beneficiaries if pay points are located near their homes. If payments go through bank accounts that are only accessible in distant bank branches, this may make the payment process more expensive and inconvenient for the beneficiary. Branchless banking schemes have the potential to address this issue of accessibility, and these solutions among others should be considered to avoid adverse consequences of a financially inclusive payment solution.

243. Multiple providers and technologies should be considered to reduce costs, provide beneficiary choice and increase efficiency:[30] Ideally, financially inclusive programs should

[29] Pickens, Mark, David Porteous, and Sarah Rotman. 2009. "Banking the Poor viaG2P Payments." Focus Note 58. Washington, D.C.: CGAP.

[30] DFID. 2009. "Designing and Implementing Financially Inclusive Payment Arrangements for Social Transfer Programmes." London: DFID.

offer beneficiaries an option in their payment (and financial) provider. This arrangement enables competition and therefore better services for the client. In reality, many G2P schemes will find it difficult to manage multiple providers, especially from the very start. But the program should consider the possibility of how the initial payment arrangements may evolve to multiple providers in the future. Overall, governments must consider the trade-offs between managing multiple providers and granting exclusive contracts to one provider.

244. In the same way, while proprietary technology may bring benefits in terms of specific functionality, it can also tend to be expensive and make interoperability with the broader financial system more difficult. Therefore, it is preferable to implement arrangement which have the potential to integrate into financial systems, at least in the future.

245. Governments should be willing to pay adequate fees to payment service providers: While cash payments may appear “free” to governments since most of the costs are internalized, it is important for governments to place value on the services being delivered by the payment service providers. Sufficient fees should be paid to enable the providers to subsequently pay the other actors in the value chain (including end agents) that make the last mile payments to beneficiaries.

246. An offering of financial services should be combined with proper financial education and literacy: Global experience to date suggests that usage of accounts linked to G2P payments often remain low unless the beneficiary finds the account useful to their money management needs, understands the full functionality of the account, and has relatively easy access to the account. Financial literacy helps consumers understand the information about the account and make risk/return choices that optimize their financial wealth. In addition, it helps promote the deepening of the retail financial sector, attracting first-time consumers to access financial services and building public trust in financial institutions.

6. Implementation of general guidelines for government payments

247. This section develops a broad framework which can be used by the public authorities to conduct assessments of government payment programs, and based on the outcomes of the assessments, design and implement relevant policy measures to improve the delivery of government payment programs that are consistent with the overall policy objectives.

248. Developing comprehensive reforms for government payment programs require six key considerations[31]:

- A vision of a desired end state over the planning horizon that articulates the consensus view of key stakeholder groups within the government regarding the high-level objectives, guiding principles, properties, benefits, risks and costs of the key government payment processes within a country.

- Political support, leadership and willingness to undertake lengthy reform of legal and regulatory framework and institutional arrangements for various types of government programs.

- A statement of the roles, commitments and responsibilities of the key public and private sector stakeholders in the program development and implementation process. This could be at an aggregate level (framework agreement that covers all government programs such as in the UK) or at a program or agency level.

- Observable milestones that can be measured against critical and objective success factors.

- Conceptual design of the planned improvements to the supporting payment systems infrastructure or other aspects that affect government payment processes. These could include the relation to the existing system with reference to its structure, key characteristics, functionality and potential for further expansion and re-engineering as future developments warrant.

- Implementation strategies, which includes the specific implementation priorities and procedures, and timelines, budgetary allocations and financing schemes, critical milestones and observable measures of achievement for public progress reports.

249. These strategic considerations are common to all government programs and should be considered in a holistic manner. As noted previously, government payment programs, seen from a holistic viewpoint, comprise of many individual components managed by different and disparate entities. The development of individual systems would likely be handled by both public and private sector entities; however, wherever possible the public authorities should co-ordinate, foster collaboration, and having an agreed vision during design and implementation of such programs.

[31] These are adapted from the key elements included in the General guidance for national payment systems development, CPSS, January 2006

250. Keeping in mind the strategic considerations identified above, the public authorities, led by the central bank, national treasury and ministry of finance must plan to reform the government payment programs with a well-structured approach that includes the development of action plans or strategic frameworks for the following aspects:

- Appropriate arrangements for oversight and monitoring of the payment systems that support government payment processes in coordination with relevant public authorities;
- A coordination framework that identifies the needs of all stakeholders in the government payments value chain including consumer protection and financial inclusion issues;
- A robust assessment of existing government payment programs to gain relevant information including identification of issues that must be addressed to improve the key policy objectives identified by the authorities;
- An implementation plan for policy measures with a realistic timeline and which also buy-in from the stakeholders;
- An approach that continually monitors the implementation of reforms as well as new issues in the market for retail payments, for instance, emergence of innovative payments and need for development of appropriate regulations.

251. Responsibility for implementing the General Guidelines lies with both the public authorities and the private sector. However, if a policy decision is taken to implement the General Guidelines, the authorities are likely to have to initiate the process and they will need to decide how to do this.

252. Monitoring and assessment will be helpful in carrying out public policy objectives and deciding on appropriate actions with respect to payment systems. Dialogue with the private sector as well as the consumers and vendors is an important tool that can be used to understand market trends and influence outcomes

253. Authorities may be able to help the private sector improve national payment systems by acting as a catalyst or facilitator, that is, where authorities use their influence to support or speed a market outcome. For example, they may be able to encourage appropriate codes of conduct or possibly self-regulation. Public authorities may sometimes need to use regulation to address market needs. Where they do so, they should attempt to ensure that regulatory solutions have net benefits and do not create unnecessary burden and do not discriminate for or against providers.

254. Direct provision by public authorities of certain services (such as: settlement services) to support government payments is also a possible instrument.

6.1 Self-assessment methodologies

255. A first step in establishing a reform process for the government payment programs should be to assess the degree to which the current government payment systems in each country comply with the general guidelines. In doing so, it identifies relevant in-country counterparts and describes the typical reports that could be produced as an outcome of the stock-taking exercise.

256. In order to assess government payment programs in a country against the general guidelines, a suitably experienced team should be established. The team should comprise experienced payment systems experts as well as national experts and practitioners.

257. While the team might not be able to quickly acquire all the information needed for the analysis, the team should try to combine a structured search of relevant literature and carefully arranged meetings with knowledgeable local professionals to assemble the maximum amount of information possible.

6.2 Assessment reports and other tools

258. The stock-taking exercises should provide a review of the government payment programs in the country under examination, and should provide a sound basis for developing improvement strategies and action plans to foster government payment systems. Some of the key outputs of this exercise that can be in the report could include:

- **Questionnaires and surveys**: A standard set of questions that could be used to collect quantitative data for analysis. These questionnaires could be generic to the national payment systems as well as comprehensive about government payment programs. A sample questionnaire is included in Annex C of this report.

- **Recommendation report**: This report targeted for the national authorities could (i) set-out the country's government payment systems context; (ii) analyze the current status; and, (iii) provide practical and strategic recommendations and suggestions for exploiting improvement opportunities. These recommendations could include short-term and long-term improvements to the government payment systems.

- **Public report**: The preparation of a public report containing a systematic in-depth description of government payment systems as it relates to the General Guidelines could be useful because: (i) it creates benchmarks for comparing countries; (ii) it creates awareness among stakeholders in each country; (iii) it creates awareness about the importance of the issues under discussion for the general public.

6.3 Potential actions for implementing the general guidelines

259. There are a set of possible actions related to implementation which will be continually refined based on the experiences of pilot programs. There are many differences between countries - economic, cultural and political - which mean that actions that are helpful in one country may not be equally helpful in another. These suggestions in the format below will be refined on an ongoing basis.

- Possible actions concerning General Guideline 1: legal and regulatory environment.
- Possible actions concerning General Guideline 2: payment systems infrastructure.
- Possible actions concerning General Guideline 3: risk management.
- Possible actions concerning General Guideline 4: market structure and competition.
- Possible actions concerning General Guideline 5: governance and transparency.
- Possible actions concerning General Guideline 6: cooperation and partnership.
- Possible actions concerning General Guideline 7: financial inclusion.

260. In the context of the discussion on actions for implementation, it is important to highlight that the treasury function is central to the reforms for government payments. For such purposes, it would be useful to consider the whole treasury function as a ***value chain*** [32] or, more precisely, as a value system, structured in different processes and activities (see box 24). This approach enables to properly identify all the links and the correlations among different actors, activities and outputs. Obviously, the original model needs some adjustment to fit the peculiarities of the treasury services.

261. It is difficult to consider the treasury system as a single monolithic industrial corporate, as in a treasury system there is not a single and straightforward production flow/process. Actually, the treasury system is the backbone for recording and processing all financial transactions related to the budget of any level of government, where core functional processes and form of government are mutually correlated. Also inputs and outputs of different processes are mutually correlated (for example TSA management and public debt analysis and forecast).

262. The next step is to design a high level framework that addresses the major functional components of the whole system. The chart below provides a list of activities and a brief description of the functional processes and information flows associated with the treasury system, moving from general to specific. The first level distinguishes between the general and the operational framework. The second level identifies macro-areas such as the legal framework, technology, payments or collections sectors, accounting, etc.

[32] Contributed by Banca d'Italia

Box 24: Government payments 'value chain' approach

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.
	Technological Architecture	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 databases reside at a central site. In this case it is possible to choose between a single or a multi tier architecture.
		Centralized transaction processing	
Operational Framework	Payments	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.
		Payments execution	
		Decentralized Officials payments	
	Receipts	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 (commoditization) 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.
	Treasury Single Account architecture and scope	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.
		Holding local Government's accounts	
		Local Government Treasury service	
	Liquidity Management	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 indentify 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	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 (cash basis)	
		General Government non-financial accounts (accrual basis)	

Source: Banca d'Italia

263. The third level examines the more specific activity which, as a rule, should be performed by a single actor. The aim of the description is to provide a detailed definition of each activity listed in the second or third column, in order to share the definition itself given in the chart and outline the existing correlation between different processes. A further ‘country’ column could be added to the chart to collect information about national practices.

264. The existing systems, as implemented in different countries, may obviously present several variations compared to the model. However the model should be able to satisfactorily encompass the main features. In any case it may provide a stimulus for focusing the attention on the processes – in particular in contexts where the roles of the different actors or the stages of the process are not clearly defined – and for reviewing their features, helping understand whether the current treasury system is well suited or it needs a different balance among the functions executed within the public perimeter, and between public and market sectors. This approach will also highlight the effects of the legal and institutional framework on the design of a treasury system and the necessary inter-linkages among various institutions.

Annex A: Glossary

ACH	Automated clearing house
ATM	Automated teller machine
B2G	Business to government payments
Central Treasury System	A unified structure of government bank accounts via TSA
CCT	Conditional cash transfer, a social benefit program
EBF	Extra-budgetary fund
EFT	Electronic fund transfer
FAD	Fiscal affairs department
G2G	Government to government payments (intra-governmental)
G2P	Government to people payments
G2B	Government to business payments
GFSM	Government Finance Statistics Manual
Government Collections	Incoming payment to government (taxes, revenue, etc.)
Government Expenditures	Outgoing payments from government (procurement, etc.)
Government Transfers	Budgetary transfers to various government departments
IAG	International Advisory Group for Government Payments
IFMIS	Integrated financial management information system
IMF	International Monetary Fund
LIC	Low-income country
LVPS	Large value payment systems
MoF	Ministry of Finance
OECD	Organization for Economic Cooperation and Development
P2G	Person to government payments
PFM	Public financial management
PO	Payment order
POS	Point of sale
PSDG	Payment Systems Development Group (World Bank)
RTGS	Real time gross settlement system
SOE	State-owned enterprise
STP	Straight through processing
SVPS	Small value payment systems
SSS	Securities settlement systems
TGL	Treasury general ledger
TSA	Treasury single account, a logical unification of bank accounts
WB	World Bank
ZBA	Zero-balance account

Annex B: References

1. **Allsopp, P., Summers, B., Veale, J., (2009). "The Evolution of Real-Time Gross Settlement." Financial Infrastructure Policy and Research Series, The World Bank.**

   This book identifies and analyzes some policy issues arising from central bank experience and practice in supporting RTGS systems, both as settlement authorities and as service-providing RTGS system operators.

2. **Guadamillas, M., et al, (2008). "Balancing Cooperation and Competition in Retail Payment Systems." Financial Infrastructure Policy and Research Series, The World Bank.**

   Authors look at the forces shaping retail payments markets and offer a set of policy implications for public authorities to explore in their efforts to balance cooperation and competition in retail payment systems in order to bridge the infrastructure gap enhancing economic and social development.

3. **Cirasino, M., Guadamillas, M., Garcia, J.A., Montes-Negret, F., (2007). "Reforming Payment and Securities Settlement Systems in Latin America and the Caribbean." The World Bank.**

   This book extracts the main lessons and experiences of the Western Hemisphere Initiative, describing trends in payments and securities settlement systems worldwide and assessing Latin American and Caribbean systems in relation to international standards and best practices.

4. **Cirasino, M., Garcia, J.A., (2008). "Measuring Payment System Development." Financial Infrastructure Policy and Research Series, The World Bank.**

   This note introduces a first attempt by the Payment Systems Development Group to measure payment system development levels across countries (based on the outcomes of 2008 survey).

5. **Committee on Payment and Settlement Systems (2001). "Core Principles for Systemically Important Payment Systems." BIS, January.**

   The report issued by CPSS Task Force on Payment System Principles and Practices to consider what principles should govern the design and operation of payment systems in all countries.

6. **Committee on Payment and Settlement Systems (2003a). "Policy issues for central banks in retail payments." BIS, March.**

   This report examines the policy issues that central banks face in the field of retail payments. It is the third in a series of three reports by the CPSS of the central banks of the Group of Ten countries, which set up a Working Group on Retail Payment Systems to conduct this task.

7. **Committee on Payment and Settlement Systems (2003b). "A glossary of terms used in payments." BIS, January.**

   This is a comprehensive glossary of payment system terminology as a reference document for the standard terms used in connection with payment and settlement systems.

8. **Committee on Payment and Settlement Systems (2007). "General principles for international remittance services." BIS, January.**

   This report provides an analysis of the payment system aspects of remittances and sets out general principles designed to assist countries in improving the market for remittance services.

9. **Committee on Payment and Settlement Systems (2006), "General guidance for national payment system development." BIS, January.**

This report, which was initiated by the CPSS aims to give assistance and advice on the planning and implementation of reforms in national payment systems. A consultation version of this report was published in May 2005 and was discussed in regional consultations with payment experts from central banks and the financial community around the world.

10. **Federal Reserve System (2002). Retail payments research project." F. R. System.**

This article examines the Federal Reserve's role in retail payments in light of the evolving payments system.

11. **Hashim, A., Allen, B., (2001), "Treasury Reference Model." Technical Paper No. 505, The World Bank.**

This document gives guidelines for the design of computerized treasury systems for government, aimed at two groups: (a) central bank task managers and authorities within government; and (b) software designers and suppliers.

12. **Payment Systems Development Group (2010). "Payment Systems Worldwide – A Snapshot." Financial Infrastructure Policy and Research Series, The World Bank.**

This report provides a brief overview and analysis of the outcomes of the 2010 global survey on payment systems and security settlement systems conducted by the Payment Systems Development Group of The World Bank. The survey covered 130 countries.

13. **Payment Systems Development Group (2008). "Payment Systems Worldwide – A Snapshot." Financial Infrastructure Policy and Research Series, The World Bank.**

This report provides a brief overview and analysis of the outcomes of the 2008 global survey on payment systems and security settlement systems conducted by the Payment Systems Development Group of The World Bank. The survey covered 142 countries.

14. **Pattanayak, S., Fainboim, I. (2010), "Treasury Single Account: Concept, Design, and Implementation Issues." Working Paper 10/143, IMF.**

This paper explains TSA concept, essential features, and potential benefits. It also presents alternative models and approaches for designing a TSA that take into account specific country contexts as well as the preconditions and desirable sequencing for its successful implementation.

15. **Tandberg, E., (2005), "Treasury System Design: A Value Chain Approach." Working Paper 05/153, IMF.**

The paper develops a generic value chain for a treasury system and discusses the choices that are made in designing that system. The paper provides an indicative set of good practices for treasury design in different groups of countries.

Annex C: Assessment tools for government payments

Draft Questionnaire on Government Payments

Please note that this questionnaire is strictly confidential and the World Bank will not make use of any information provided here for any other purpose than research. The questionnaire will be sent to central banks (and partner agencies) in their capacity as payment system overseers and (in many cases) payment system operators. The finalized survey is expected to cover all the key aspects of government payments including G2G, G2B/G2P, and B2G/P2G payments.

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 would you consider as obstacles in efficient public finance management?

	Major concern	***Minor concern***	***Not a concern***
a. Technical Problems			
- Organization of TSA			
- Implementation of IFMIS			
- Other technical problems			
b. 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 their clear guidelines on the procurement procedures? Are they publicly available?

   _____

9. Are there any special programs (electronic instruments) 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 to the government 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***
c. Government to person payments			
- Public sector salaries			
- Pensions and transfer payments			
- Cash transfers / social benefits			
d. Person to government payments			
- Taxes			
- Utility payments			
- Payment for services, etc.			
e. Government to business payments			
- Procurement of goods/services			
- Tax refunds			
f. 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 are 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***
g. RTGS systems	
h. ACH systems	
i. ATMs	
j. 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 to all?
_____

50. What role did payment instruments play in the government's planning for financial inclusion?
_____

Annex D: A collection of financial inclusion initiatives

India: India is working to promote financial inclusion using G2P programs. Many new central bank programs have enabled large-scale migration of government salaries, pensions, tax refunds, and other G2P payments for government employees, and most banked clients have direct EFTs to their accounts. Other G2P payments and programs directed towards rural areas have until recently been primarily through cash- or paper-based records. But 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.

States such as Andhra Pradesh having made significant progress in adoption of new payment methods with more than 11.8 million adults enrolled in January 2011. Between April and December 2010, the MNREGA distributed more than $686 M in payments. More than three-quarters of these payments were made within three days of recipients completing their MNREGA jobs.

According to the state government, following issues should be addressed to ensure effective functioning of MNREGA payments: accurate worker enrolments and registries to monitor work attendance, accurate assessment of job completion, and minimal involvement in payment execution by local job supervisors, and high-quality materials supplied to worksites. The state government uses a combination of a centralized system and increased oversight by involving NGOs and local citizens to verify these aspects.

An electronic muster and measurement system (eMMS) has been implemented to record daily work and attendance in the centralized system. Field personnel were provided with mobile phones loaded with custom software to record work and attendance, and the eMMS system has a range of business rules to validate data entries. Mandal computer centers (MCCs) have been established, with one for every 5,000 workers. The centers are responsible for enrolling workers, issuing job cards, generating muster rolls, recording details of new projects, and so on. Each centre is linked to the eMMS and to an electronic fund management system (eFMS) to process payments for wages and materials. The banking partner: Axis Bank, issues job cards and smartcards to enrolled workers. The smartcards are linked to no-frills bank accounts operated by the bank, which services these accounts using business correspondents equipped with POS devices that communicate with the bank to process transactions.

The eFMS uses eMMS data to pay for wages, materials, and other work-related expenses. All payments are made through the interbank NEFT system operated by the central bank. The Government of Andhra Pradesh transfers a lump sum to Axis Bank with a list of workers who need to be paid. The bank then credits the accounts of the workers. Business correspondents typically visit MNREGA worksites and client villages daily to provide services and answer queries.

South Africa: In South Africa three programs used the same payment mechanism to deliver US$ 12.6 million in cash payments to recipients in 2008. Because of the number of payments being delivered, the scheme's managers can offer recipients a choice among payment mechanisms. South Africa's Department for Social Development first funded old-age and child support grants, but state departments were responsible for deciding on payment arrangements. Concerns about the inefficiencies of multiple state-level contracts and rising fraud led to the recentralization of payments at the national level. The Social Security Agency was created to ensure common standards and accountability throughout the payment process.

According to the most recent report by the South African Social Security Agency (SASSA), 80 percent of grants are paid in cash at mobile payment points using biometric readers and ATMs, while 20 percent are made directly into bank accounts.[33] These schemes enable recipients to select the payment mechanism that best suits their needs. This approach is possible given the large number of recipients in these schemes. The SASSA saw its cost of delivering social transfers drop 62 percent

[33] Source: Bankable Frontier Associates 2008, p. 19.

after moving to private bank accounts.[34] This also led to an increase in the number of banked transfer recipients. A 2005 Finscope survey found that 36 percent of recipients were banked, rising to 55 percent in 2007.[35]

- In some provinces recipients may opt to open a bank account such as the Sekulula debit card account, which is issued by a subsidiary of ABSA Bank, a large commercial bank. The card is targeted at the needs of social grant recipients in South Africa. The Sekulula account meets the criteria of a financially inclusive product. Its features include no minimum balance requirement or fixed fee for holders.

- The government welfare agency pays the bank about INR 66 (US$ 1.50) a month per account. For this amount, card holders can make two free withdrawals a month at ATMs or merchants of their choice.

- The cards can be used at any other bank ATMs for a fee or POS terminals where Visa is accepted.

More than two-thirds of transfer recipients in one South African province have adopted this account. ABSA cross-sells other financial services—such as loans and life insurance—to its client base and to non-recipient clients, increasing financial inclusion in these areas.

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$ 7-45. 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.[36] 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 payment process for all social programs in Brazil. The bank manages the Cadastro Único, 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 due to beneficiaries' electronic benefit cards each month. 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. This extensive network of access points has made the bank an ideal partner for the Bolsa Familia Program. The payments process is monitored by the Caixa Economica and the Ministry of Social Development as well as municipal and state coordinators.[37]

USA: 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 program is a means-tested program that provides grants to U.S. residents that can only be used to buy food at authorized food retailers. Other states then began to consider electronic G2P payment pilots, starting with Maryland in 1989 and Minnesota in 1991. While these early pilots included cash welfare payments, the initial emphasis was on food stamps.

Maryland launched the first state-wide implementation of EBTs in the United States in 1993 and was soon followed shortly by New Mexico, North Dakota, South Carolina, and South Dakota. While other

[34] Source: Pickens, Porteus, and Rotman 2009, p. 4.

[35] Source: Bankable Frontier Associates 2006, 2008.

[36] Source: Pickens, Porteus, and Rotman 2009.

[37] Source: Lindert and others 2007.

states continued planning for EBTs, the main impetus driving nationwide implementation of EBTs was the 1996 Personal Responsibility and Work Opportunities Reconciliation Act (PRWORA), which 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 more than US$ 5.6 billion in food stamp benefits each month. The average monthly benefit per participant is about US$ 140.

As a result of the advanced telecommunications infrastructure and debit card environment in the United States, almost all EBT programs use cards with magnetic strips, such as debit cards, to access participants' EBT accounts. Today all food stamp benefits are distributed using such cards.

One of the main reasons for the relatively quick adoption of EBT programs was the support they received from retailers. Before implementation of EBTs, foods stamps were paid using paper coupons, which involved additional efforts and costs to process. Retailers were motivated to move to EBTs to reduce their transaction costs for accepting food stamps. Another factor driving implementation was recipient satisfaction and preference for EBTs. Because food stamps are means-tested, many recipients were embarrassed about using them to buy food. But 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. While EBT cards were used to pay cash benefits - particularly under the Temporary Assistance to Needy Families (TANF) program - its widespread adoption for other cash programs was limited. But in 2005 the use of prepaid debit cards started increasing dramatically with the use of electronic G2P payments for cash benefits. State programs that began using prepaid debit cards to disburse cash payments include child support, unemployment insurance, supplemental security income, and TANF payments.

At the federal level, the U.S. Treasury also supported prepaid debit cards for the largest U.S. G2P program - DirectExpress - as well as other cash payments such as veteran compensation and pensions, railroad worker retirements, and federal retirements. Because of the payment infrastructure and interchange rules implemented by the payment card associations (Visa and MasterCard), the federal government and states have been able to make G2P payments using prepaid debit at no cost to the government. The PSPs and financial institutions can obtain their revenue through interchange fees[38] to retailers accepting prepaid cards and through transaction fees[39] to card users.

As a result the U.S. G2P payments program is evolving into a two-tier market where nutrition programs from the Department of Agriculture—specifically food stamps (now called the Supplemental Nutritional Assistance Program, or SNAP, and the Supplemental Nutritional Program for Women, Infants, and Children (WIC)—use EBT cards to disburse benefits. Other cash payments are made through Visa or MasterCard branded prepaid debit cards.

Philippines: The Conditional Cash Transfer (CCT) Program of the 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 Development which intends to break the intergenerational poverty cycle through investments in human capital. The 4Ps helps to fulfill the country's commitment to meet the Millennium Development Goals, namely: (1) Eradicate Extreme Poverty and Hunger, (2) Achieve Universal Primary Education, (3) Promote Gender Equality (4) Reduce Child Mortality and (5) Improve Maternal Health.

[38] While interchange fees vary depending on the size and type of retailer, they are usually 1-2 percent of the purchase amount.

[39] The prepaid debit card account is a low-cost no-frills account for which participants are charged transaction fees for additional services, such as INR 44 (US$ 1) for ATM cash withdrawals after an initial one or two free transactions a month, or INR 11 (US$ 0.25) per ATM balance inquiry. These fees are set between banks or PSPs and contracting government entities.

The conditional cash grants to beneficiaries in 4Ps include P 6,000 a year or P 500 per month per household for health and nutrition expenses; and, P3000 for one school year or 10 months or P300/month per child for educational expenses. A maximum of three children per household is allowed. Thus, a household with three qualified children receives a subsidy of P 1,400 per month during the school year or P 15,000 annually as long as they comply with the conditions established by the government. Each household-beneficiary will receive the cash grants for at most, five years. Non-compliance to the conditions will result in the suspension of cash grants or dropping from the program.

The criteria for the selection of eligible beneficiaries includes: residents of the poorest municipalities based on 2003 Small Area Estimates (SAE) of National Statistics Coordinating Board (NSCB); households whose economic condition is equal to or below the provincial poverty threshold; households that have children 0-14 years old and/or have a pregnant woman at the time of assessment; and households that agree to meet conditions specified in the program. 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 government bank.

- Over-the-Counter via LBP branch: In cases where payment through Cash Card is not feasible, the beneficiaries shall be provided their cash grants through an alternative payment scheme such as over-the-counter transactions from the nearest LBP branch or offsite payments through LBP.

- G-CashRemit: In December 2010, the DSWD and LBP, in their desire to reach out and provide cash grants to poor families in far-flung areas, 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. According to Globe President and CEO Ernest Cu, by using the G-Cash Remit, families in remote villages don't have to spend extra just to travel and get their monthly CCT cash grants because the G-Cash Remit brings the money closer to them through its wide network of outlets in a safe and secure manner. LBP intends to use GCash Remit to disburse cash grants in Albay, Aklan, Aurora, Cebu, Iloilo, Lanao del Norte, Masbate, Sarangani, Sorsogon and others.

Measures to Verify Compliance to the Conditionality: The DSWD in coordination with the Advisory Committee composed of Department of Education (DEPed), Department of Health (DOH), Department of Local and Interior Government (DILG), National Agency for Prevention of Corruption (NAPC) and the LGU representatives at the national, regional and municipal levels will ensure conduct of compliance verification every month using the Compliance Verification System (CVS) developed for this purpose. CVS report is submitted to DSWD every 3 months and will serve as basis for the transfer of cash grants.

Annex E: Indicators used in 2007 GEAR report

Indicators used in the scoring methodology of the GEAR report (EIU and Visa Inc.):

Indicator name	Indicator type
Consumer-to-government (C2G)	
1. Income tax payments	Score
2. Social security contributions	Score
3. Obtaining and paying for a new or replacement ID card or driver's license	Score
4. Automotive costs: Toll roads, bridges, zones, fines, tickets etc	Score
Government-to-consumer (G2C)	
1. Income tax refunds	Score
2. Social security benefits	Score
3. Unemployment, workers' comp and welfare benefits	Score
4. Government health benefits	Score
Business-to-government (B2G)	
1. Income tax payments	Score
2. Sales/VAT tax payments	Score
3. Social security and other contributions	Score
4. Company registration and payment of fees	Score
Government-to-business (G2B)	
1. Income tax refunds	Score
2. Sales/VAT tax refunds	Score
3. Payments for goods and services	Score
4. Disbursements of loans (such as SBA in the US)	Score
Infrastructure	
1. Number of ATMs per 10,000 people	Statistic
2. Number of POS terminals per 10,000 people	Statistic
3. Diffusion of broadband	Score
4. Diffusion of narrowband/dial-up	Score
5. Public-access terminals per capita	Score
6. Mobile phone usage per capita	Score
7. Level of development of stored value cards/phones	Score
8. Level of development of 3G and other technologies	Score
Educational, economic and political context	
1. Literacy levels	Statistic
2. Educational levels	Statistic
3. Internet/technology savviness	Score
4. Percentage of population using banks/other financial institutions	Score
5. Percentage of businesses using banks/other financial institutions	Score
6. Government commitment to electronic payments	Score
7. Government commitment to integrating the informal economy	Score

EIU collected data and scored indicators on a scale of 0-4 based on their assessment of the ease of making these payments electronically. Some indicators were also based on quantitative data where available. Each category of indicators was assigned equal weight (14.2% each). Source: Government E-Payments Adoption Ranking, A Briefing Paper From The Economist Intelligence Unit (EIU), Sponsored by Visa Inc., October 2007.

Annex F: Members of the International Advisory Group

Name	Institution	Representation
Kamala Gurbanova	National Bank of Azerbaijan	Azerbaijan
Mardilson Fernandes Queiroz	Banco Central Do Brazil	Brazil
Ricardo Pereira de Araujo	Banco Central Do Brazil	Brazil
Leonardo Rodrigo Ferreira	National Treasury	Brazil
Anderson Brandao	Ministry of Social Development	Brazil
Fabiola Herrera	Banco Central	Dominican Republic
Bruno Doffizi	Banca d'Italia	Italy
Carlo Maria Arpaia	Banca d'Italia	Italy
Alejandro de los Santos	Banco de Mexico	Mexico
Irene Espinosa Cantellano	National Treasury	Mexico
Ricardo Medina Alvarez	Banco de Mexico	Mexico
Norma Espinosa	National Treasury	Mexico
Bella Santos	Bangko Sentral ng Pilipinas	Philippines
Natalia Pavlova	Bank of Russia	Russia
Pavel Sumbulov	Bank of Russia	Russia
Mikhail Bolshakov	Bank of Russia	Russia
Svetlana Romashkina	Bank of Russia	Russia
Mikhail Myznikov	Bank of Russia	Russia
Olga Gritsay	Ministry of Finance	Russia
Andrey Gribov	Ministry of Finance	Russia
Sergey Chernev	Ministry of Finance	Russia
Vladimir Lukov	Ministry of Finance	Russia
Liudmila Lopina	Treasury	Russia
Matvey Tarasov	Treasury	Russia
Andrey Sholkin	Treasury	Russia
Ekaterina Semenova	Treasury	Russia
Abdulmalik Al Sheikh	Saudi Arabian Monetary Agency	Saudi Arabia
Hussam Mahmoud	Saudi Arabian Monetary Agency	Saudi Arabia
Lizette Labuschagne	National Treasury	South Africa
Ibrahim Kirdaban	Central Bank of Turkey	Turkey
Secil Cicek	Turkish Treasury	Turkey
Burak Deste	Turkish Treasury	Turkey
Mahmut Varol	Ministry of Finance	Turkey
Ayse Dagistan	Central Bank of Turkey	Turkey
Lois Quinn	Department of Treasury	USA
Lisa Hoskins	US Federal Reserve	USA
Patrick Dwyer	Mastercard	Private Sector
Neil Dugan	Mastercard	Private Sector
Pilar Ramos	Mastercard	Private Sector
Salvador Perez-Galindo	Visa	Private Sector
Paveena Singh	Visa	Private Sector
Jim Wills	SWIFT	Private Sector

Name	Institution	Representation
Norbert Bielefeld	ESBG-WSBI	NGO
Alfred Hannig	AFI	NGO
Xavier Rame	IMF	Multilateral
Christine Sampic	IMF	Multilateral
Marc Hollanders	CPSS - BIS	Multilateral
Can Okay	CPSS - BIS	Multilateral
Natasha Bajuk	IADB	Multilateral
Mattia Adani	IADB	Multilateral
Jennifer Isern	IFC	Multilateral
Sarah Rotman	CGAP	Multilateral
Mark Pickens	CGAP	Multilateral
Kabir Kumar	CGAP	Multilateral
Yanina Seltzer	CGAP	Multilateral
Lucian Pop	World Bank	Multilateral
Zaid Safdar	World Bank	Multilateral
Massimo Cirasino (Chair)	World Bank	Multilateral
Hemant Baijal (Secretariat)	World Bank	Multilateral
Rahul Kitchlu (Secretariat)	World Bank	Multilateral