

NATIONAL RETAIL PAYMENT SYSTEMS TO SUPPORT FINANCIAL INCLUSION

THIS GUIDELINE NOTE HAS BEEN DESIGNED TO FOCUS ON KEY PRINCIPLES AND AREAS THAT REGULATORS AND POLICY MAKERS MAY TAKE INTO ACCOUNT IN DEVELOPING LAWS AND REGULATIONS ON RETAIL PAYMENT SYSTEMS TO SUPPORT FINANCIAL INCLUSION.

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BACKGROUND

The role of payment systems in economic transactions cannot be overemphasized. Payment systems are the media through which economic decisions of economic agents are articulated and transmitted. Payment systems capture the very essence of demand and supply, facilitate the measurement of national statistics and guide national authorities in deriving effective policies for economic development and financial stability. Efficient, well-functioning and secure payment systems are therefore of utmost importance to governments who are increasingly turning their attention to retail payments.

National retail payment systems (NRPS) all over the world are undergoing massive transformation due to improvement and innovations in technology. Increasing number of people are demanding faster, more convenient and flexible means of payments that come with differentiated financial products that meet their needs for savings, investment, insurance and credit delivery. Furthermore, payment services have become a gateway to other financial services and are, therefore, critical tools for the extension of these services.

On the other hand, the expansion in technology has not come without a price. While there are implications for efficiency, risk becomes a major challenge. This is especially true when most developments in the payments sector are being spear-headed by non-banks who are making greater impact on the banking landscape. Technology is more often than not many steps ahead of regulation, while the latter is lagging behind. Trying to play a catch up is sometimes difficult to achieve.

Many markets have allowed innovation specifically with the view to achieving full financial inclusion while some are more cautious and have sought to rein in the development of products that the regulator does not readily understand. In this regard, the following policy questions arise:

- What should be the posture of financial regulators as they face challenges raised by these innovative, sometimes disruptive financial products and services?
- Which regulatory and oversight approaches are suitable and which ones should be adopted?

In their role as both catalysts and overseers of payments systems, central banks face various issues and challenges such as, but not limited to fraud, money laundering, cyber-crime, consumer protection, credit and over-indebtedness, competition and cooperation amongst bank and non-banks. There is therefore a need for appropriate categorization of these risks and threats in order to deal with them effectively.

OBJECTIVE

This Guideline Note is designed to focus on key principles and options that regulator and policy makers may take into account in developing laws and regulations on retail payment systems to support financial inclusion. While the issues are not necessarily exhaustive, a good number of principles and options have been raised to support regulators and policy makers in designing appropriate policies and regulations that suit their markets and promote the orderly conduct of national retail payment systems development. To further illustrate these principles and options, this guideline note provides for specific experiences of various jurisdictions as detailed in Section 5.0.

PRINCIPLES/APPROACHES TO NATIONAL RETAIL PAYMENT DEVELOPMENT

The key principles and options for developing a national retail payment system that support financial inclusion are discussed below:

SOUND LEGAL AND REGULATORY FRAMEWORKS

The role of legal and regulatory frameworks is to provide enabling laws, policies and principle-based regulations that will facilitate effective access and use of payment services and products. An appropriate legal framework with specific applicability to retail payment systems is therefore required for each jurisdiction. At a minimum, laws and/or regulations shall cover/provide for the following:

- > Explicit and defined authority of Central Banks over payment systems, which may be embodied in the Central Bank Act/Law (ex. Afghanistan, El Salvador, Sudan, Jordan), Payment Systems Act (ex. Ghana, Kenya, Palestine) or/and other legislation (ex. Jordan, Malaysia). Authority shall include, among others, the role to designate payment systems (ex. Kenya) and the criteria to do so, and the oversight function, which shall focus on the efficiency, safety, stability and reliability of payment systems through risk-based approach over all participants including non-banks;
- > Clarity and certainty in the roles and responsibilities of various parties involved in the NRPS;
- > High level of certainty for each important aspect of retail payments, including, among others, finality of settlement;
- > Flexibility in laws and/or regulations allowing wider access to payment systems through innovative payment services and increased access to new participants such as non bank financial institutions and microfinance institutions, whilst not compromising the safety and efficiency of the payment system;
- > Policies promoting efficiency and transparency in payments, as well as programs that encourage the use of electronic forms of payment leading to a cash-lite environment;
- > Policies addressing relevant issues such as:
 - Consumer protection;
 - Complaints procedures, recourse mechanisms (e.g. ombudsmen institute, financial stability unit of central banks) and compensation mechanisms;
 - Fair competition (this may include issues on pricing such as whether the central bank would need to set a price range for certain products or services);
 - Data Protection;
 - Fraud and Cybercrime mitigation;
 - Risk-based approach to Know Your Customer/Customer Due Diligence (KYC/CDD); and
 - Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) Policies.

OVERSIGHT FRAMEWORK

Oversight of payment systems is a crucial element for maintaining the stability of the financial system. An appropriate oversight framework needs to be adopted in order to see the condition of the payments industry at a high level and help ensure that the infrastructure and the market for payment services functions smoothly, efficiently and fairly to all participants and users. One of the main objectives of oversight is the reduction of systemic risk, which could result from legal, liquidity, credit, operational, settlement and/or reputational risk in the payment system.

The oversight framework should cover the entire process of effecting a payment. This entails the full process of enabling a payer to make a payment to the beneficiary receiving the funds. In this regard, the oversight framework should further:

- > Provide guidelines in relation to the regulatory/supervisory authorities' mandate to carry out their oversight responsibilities effectively; and
- > Ensure that participants in the payment system adopt and adhere to international guidelines, standards and best practices

GOVERNANCE GUIDELINES

Governance refers to the leadership and organizational structures and processes that help ensure achievement of identified objectives and monitoring performance against these objectives. To help bring about good governance, an appropriate governance structure or model should be adopted depending on the nature and complexity of payment activities in the country as well as maturity of the market and industry players.

In adopting an appropriate governance framework, the following are to be considered:

- > Clarity in objectives, structural arrangements, powers and responsibilities of industry participants, regulator, and management body;
- > Establishment of rules, procedures and contracts that are enforceable and address at a minimum the finality of payments and failure to settle arrangements;
- > Adoption of standards to address, among others, interoperability at the business level;
- > Transparency in pricing and other relevant policies and processes;
- > Achieving balance between minimizing cost and risk management; and
- > Flexibility of the framework to promptly respond to market and technology changes.

PAYMENT SYSTEMS INFRASTRUCTURE

An appropriate payments infrastructure should be in place. The potential to obtain substantial benefits from migrating to electronic payments depends on availability of the required payment system infrastructure to process such payments safely, efficiently and at a reasonable cost.

Likewise, to obtain and maintain the trust of consumers, the infrastructure set should be robust enough to ensure continuity of operations despite disruptions or incidents that would entail the payment system to operate outside normal conditions.

Payment system infrastructure includes:

- > National Switch, private switches, Automated Clearing Houses, Real Time Gross Settlement Systems, securities depository systems
- > ATMs, POS devices, agents, post offices, and other access/interaction points
- > National Identification, Biometric Identification systems, any other private or digital identification providers approved by the regulators
- > Swift network, virtual private network, any other network used to enable the payment systems in the country
- > Credit bureau
- > Collateral registries

There is the need to maximize the potential of the available infrastructures through interoperability and widespread usage. Channeling the operations of payment service providers to key infrastructures will promote efficiency, transparency, network expansion, and a level playing field for all players. Other issues that would have to be addressed in the area of payment system infrastructure are the following:

- > Adoption of standards in areas such as networking, communications, transaction processing and system technologies
- > Government mandate versus market-led approaches
- > Straight Through Processing (STP) of transactions
- > Settlement: Real-time vs. frequent batch settlement
- > Exclusivity versus non-exclusivity of agents and devices
- > Integration of systems
- > Interconnectivity: ATMs, POS devices, Mobile money operators
- > Information sharing that would simplify verification and identification of people
- > Business continuity and crisis management procedures to hedge against any disruptions in the payment systems infrastructure

INCREASING TRANSACTION VOLUMES THROUGH GOVERNMENT PAYMENTS (G2P AND P2G)

Most often than not, government performs the largest number of payment transactions in a country regardless whether payment is to be made by the government or to the government. Collaborating with the national government and other government agencies can make a significant impact to the usage and sustainability of electronic payments.

Governments can make a direct impact on financial inclusion by channeling social and welfare benefits as well as salaries and pension payments through electronic systems. On the other hand, government can also encourage its citizens to electronically pay to government for their taxes, social security contribution and loan payments, health insurance contributions, licenses (drivers license, business license, etc.), and issuance of government documents (birth certificate, passport, land registration, etc.) Increased government participation in

payment systems has the potential to introduce and sustain the unbanked in mainstream banking/regulated systems. This in turn has the ability to drive down operational costs to operators and ultimately, reduction in transactional costs to consumers of financial services. Branchless banking channels such as mobile phones or card based solutions that deliver financial services to poor beneficiaries of G2P payment may be more cost effective than using traditional payment channels such as tellers in banking.

To further entice the use of electronic payments, a rewards system may be adopted. Rewards can be an effective way to attract customers or convince existing ones to use a specific payment instrument for their purchases and borrowing. Recent regulatory and legislative actions have focused attention on the impact of rewards on consumer choice of payment instrument. Some of the reward schemes that could be used to promote financial inclusion include:

- > Rewards for using cards and other electronic means of payments;
- > Rewards for using financial service on specific locations; and
- > Rewards for using financial service by specific users.

REGULATORY PARTNERSHIPS

Financial regulators must seek to foster close relationships and cooperation with other regulators in the ecosystem for clarity of roles, avoidance of regulatory arbitrage and greater efficiency. Partnerships need to be built with communications authorities, insurance regulators and investment regulators. This may be achieved through signing of memorandum of understanding (MOUs), college of regulators and regular meetings.

CONSUMER FINANCIAL LITERACY (CFL)

Improved financial education can be of benefit to everybody regardless of age or income. The individual's ability to make the most of his money, manage financial risks and avoid financial pitfalls can have a positive impact on his financial wellbeing and contribute towards having a population that is more financially included vis-à-vis innovative payment systems.

The core principles for CFL programs are shared responsibility, engagement and effectiveness, encouragement of good practice and diversity and inclusiveness. Increasing financial literacy should be a shared responsibility across government, business, community and education sectors. Similarly, CFL approach tailored to life stage or personal circumstances can assist to build financial literacy and help the individual to manage money effectively. Programs, information tools and resources must be delivered in accessible manner, recognizing the diverse way people learn. The focus should be building the capacities of individuals, families and communities. There is the need to also strengthen co-ordination and effective partnerships, improve research, measurement and evaluation.

Consumers should also be educated on electronic cards security and liability features such as safety, practicality, and ease of use to overcome barriers to adoption and stimulate usage. The global financial inclusion agenda recognizes these broader needs as well as the importance of financial literacy; building consumer financial capabilities and protection policies that take

into account the conditions and constraints of poor families in the informal economy.

EMERGING MODELS AND TECHNOLOGY

New service delivery models have been emerging that leverage on technology for delivering financial services in faster, cheaper and more convenient ways. A good example would be mobile technology whereby the number of mobile subscribers has grown dramatically in the last decade. Taking advantage of the prevalence of this technology help make financial transactions more accessible and reliable especially in countries where geographic conditions pose a challenge to financial inclusion. Currently, in many countries, a person's mobile wallet is now in essence his bank account.

It is therefore necessary to keep an open mind on emerging models and technology, and leverage on them so that more people can access a broader range of products at lower costs. Consequently, the following may also need to be addressed/ considered:

- > Enhancing e-commerce;
- > Electronic payments for water, energy and education;
- > In-store retail banking;
- > Improve mobile technology;
- > Ease the access of bank account through mobile; and
- > Increase access/interaction points to financial services throughout the country, regulators and regular meetings.

INDUSTRY CONSULTATION

Finally, before making major decisions relative to the NRPS, regulators and policy-makers shall ensure that appropriate and thorough consultations among the relevant key stakeholders have been made. In this regard, it is recommended that an adhoc committee be created to serve as liaison between the central bank and NRPS stakeholders to encourage the development of effective consultation and collaboration. Said setup, in particular, shall ensure that current needs and capabilities of stakeholders are identified and largely considered in the development of the country's strategic plan/ vision for the NRPS.

GLOSSARY

Access point/point of interaction - refers to the point or location where a consumer initiates a transaction. Examples of which are Point of Sale (POS) devices and Automated Teller Machines (ATMs).

Agent - any third party acting on behalf of a bank, a financial institution or a non-bank institution (including e-money issuer or other payment services provider) to deal directly with customers, under contractual agreement. The term “agent” is commonly used even if a principal-agent relationship does not exist under the regulatory framework in place.

Anti-Money Laundering / Combating the Financing of Terrorism (AML/CFT) - Regimes that are essential in protecting the integrity of markets and the global financial framework by helping mitigate factors that facilitate financial abuse.

ATM - stands for automated teller machine. This refers to a specialized machine which enables customers to carry out banking transactions, including cash withdrawals, without the aid of a bank representative or teller.

Automated Clearing House - this refers to the electronic clearing and settlement system used for financial transactions.

Biometric Identification System - A system that facilitates the identification of a person through biometric verification or by evaluating one or more distinguishing biological traits such as fingerprints, hand geometry, earlobe geometry, retina and iris patterns and voice waves.

Business Continuity - This refers to the activities required to keep your organization running during a period of displacement or interruption of normal operations.

Collateral Registry - This refers to publicly available databases of interests in or ownership of assets, which allow borrowers to prove their creditworthiness and potential lenders in order to assess their ranking priority in potential claims against specific collateral.

Credit Bureau - An institution that collects information from various sources and provides consumer credit information on individual consumers for a variety of uses.

Crisis Management - A set of procedures applied in handling, containing and resolving an emergency in planned and coordinated steps.

Customer Due Diligence (CDD) - Often used synonymously with Know Your Customer (KYC) measures, CDD generally refers more broadly to the policies and procedures used by a digital financial services provider to obtain customer information and assess the risks of money laundering and terrorist financing posed by a customer, including detecting, monitoring and reporting suspicious activities.

Fair competition - Just, open and equitable competition between business competitors. Competition, on the other hand, refers to the efforts of 2 or more commercial businesses to secure the same business from third parties.

Financial inclusion - Delivery of financial services at affordable costs to sections of disadvantaged and low-income segments of society.

Innovation - creating more effective processes, products or ideas.

Integration - the process of stitching together different systems in order to form a larger and more comprehensive system that ideally, quickly, and easily shares data when needed.

Interconnectivity - The technical capability to enable a connection between two or more schemes or business models, such as a payment services provider connecting to another payment services provider’s digital financial services model.

Interoperability - Enabling payment instruments belonging to a particular scheme or business model to be used or interoperated between other schemes or business models. Interoperability requires technical compatibility between systems, and can only take effect once commercial interconnectivity agreements have been concluded.

Know Your Customer (KYC) - A set of due diligence measures undertaken by a financial institution, including policies and procedures, to identify a customer and the motivations behind his or her financial activities. KYC is a key component of AML/CFT regimes.

National Identification - Collecting at a national or country level data that are required under the designated KYC procedures (e.g. name, address, date of birth, phone number, etc.)

National retail payment system - The complete range of institutional and infrastructure arrangements and processes in a country for carrying out retail payments. This includes payment instruments, participating institutions, payments infrastructure, market arrangements and the regulatory framework.

Non-bank financial institution - An institution, different from a bank, that is allowed to provide certain financial services by virtue of the regulatory framework in place.

Payment services provider (PSP) - An entity that provides services enabling funds to be deposited and withdrawn from an account; payment transactions involving transfers of funds; the issuance and/or acquisition of payment instruments such as checks, e-money, credit cards and debit cards; and remittances and other services central to the transfer of funds.

Payment system - A system that enables the transfer of funds between parties.

Point-of-sale (POS) device - this refers to a compact computer that have integrated screens specifically designed for point-of-sale (the point where retail transaction is completed) application.

Real Time Gross Settlement System - A type of payment system whereby each payment order is settled as soon as it enters the system (real-time basis)

Retail payment - (World Bank definition) Retail payments are payments that meet at least one (1) of the following:
a. Not directly related to a financial market transaction;
b. Settlement is not time-critical;
c. The payer, the payee or both are individuals or non-financial organizations; and/or
d. The payer, the payee or both are not direct participants in the payment system that is processing the payment.

Straight-through Processing (STP) - This enables an entire process to be conducted electronically without the need for manual intervention, such as keying-in or uploading certain information into another system.

Switch - A payment ecosystem platform that enables payment transactions to be routed from one payment system participant to another, whether within the same network or between different networks or schemes.

COUNTRY EXAMPLES

AFGHANISTAN

SOUND LEGAL AND REGULATORY FRAMEWORK	<p>Da Afghanistan Bank (DAB) which is the Central Bank/Regulatory Body, within and/or according to the relevant laws, regulations and policies, provides an empowering and conducive environment for various financial institutions (banks and/or non-banks) to operate and provide payment services in Afghanistan. In particular, basic tasks of DAB include: to license, regulate and supervise banks, foreign exchange dealers, money service providers, payment system operators, securities service providers and securities transfer system operators; and to establish, maintain and promote sound and efficient systems for payments, for transfers of securities issued by the State or DAB, and for the clearing and settlement of payment transactions and transactions in such securities. Reference: http://dab.gov.af/en/page/about-the-bank/basic-tasks-of-dab</p> <p>Overall, Da Afghanistan Bank is responsible to act according to the following:</p> <ol style="list-style-type: none"> 1 Laws(http://dab.gov.af/en/page/laws-regulations/laws): Da Afghanistan Bank Law, Afghanistan Banking Law, Afghanistan Law on Combating Financing of Terrorism, Afghanistan Anti-Money Laundering and Proceeds of Crime Law, and Other relevant Laws. 2 Regulations (http://dab.gov.af/en/page/laws-regulations/regulations): AML/CFT Responsibilities and Preventative Measures Regulation, Electronic Money Institution's Regulation, Regulation on Licensing and Oversight of Payment and Securities Transfer systems (Payment Service Operator), Regulation On domestic payment operations in Afghanistan, and Other relevant Laws. 3 Islamic Banking Regulations (http://dab.gov.af/en/page/laws-regulations/islamic-banking-regulations): 4 Circulars (http://dab.gov.af/en/page/laws-regulations/circulars):
OVERSIGHT FRAMEWORK	<p>Oversight framework for payment systems is embodied in Da Afghanistan Bank (DAB) Law, particularly Chapter IX - Payment, Clearing and Settlement. Among others, the following are being covered:</p> <ul style="list-style-type: none"> > Article 87, Payment systems and Payment System Operators; > Article 88, Payment System Policy; > Article 89, Internal Risks of System and Settlement Certainty; > Article 90, Money Services; and > Article 91, Miscellaneous.
PAYMENT SYSTEMS INFRASTRUCTURE	None provided
REGULATORY PARTNERSHIPS	None provided

BANGLADESH

SOUND LEGAL AND REGULATORY FRAMEWORK	<p>To promote the sound retail payment system, Bangladesh Bank has issued the following regulations and guidelines:</p> <ul style="list-style-type: none"> > Bangladesh Payment and Settlement Systems Regulations 2014 (replaced Bangladesh Payment and Settlement Systems Regulations 2009) > Money laundering Prevention Act 2015 (amended Money Laundering Prevention Act 2012) > Guidelines on Mobile Financial Services (MFS) for the Banks (issued in 2011) > Guidelines on Agent Banking for the Banks (published in 2013) > Financial Institute Act 1993 > Guidelines on Outsourcing Arrangement 2015. > Guidelines for Customer Services and Complaint Management (published in 2014) > Payment Systems Act is drafted and will be published soon.
OVERSIGHT FRAMEWORK	None provided
PAYMENT SYSTEMS INFRASTRUCTURE	<p>Bangladesh Automated Clearing House (BACH):</p> <ul style="list-style-type: none"> > Bangladesh Automated Cheque Processing System and Bangladesh Electronic Fund Transfer Network. > National Payment Switch Bangladesh (NPSB) through which all the ATMs can be used by any bank customers. > Real Time Gross Settlement (RTGS) > Mobile Financial Services (MFS) > Agent Banking
REGULATORY PARTNERSHIPS	None provided

EL SALVADOR

SOUND LEGAL AND REGULATORY FRAMEWORK	<p>While there is no Payment Systems Act, various aspects of payment systems are governed through the following laws and agreements:</p> <ol style="list-style-type: none"> 1. Treaty on Payment and Settlement Systems Securities Central America and the Dominican Republic - It aims to promote legal certainty, the development and strengthening of payment systems and securities settlement with systemic importance of the region and to strengthen the powers of central banks on payment systems of member states. 2. Organic Law of the Central Reserve Bank of El Salvador, Art. 67.- The Bank shall ensure the normal functioning of payment systems and securities settlement systems, especially those that are critical to the efficiency and stability of the financial system, also dictate the technical standards that will define the income, participation, suspension and exclusion of participants and administrators of payment systems and securities settlement. 3. Banking Law, Art. 60.- The lending and borrowing transactions carried out by banks and other institutions through accounts managed in the central bank, may be made by electronic data interchange. To this end, they will have probative value records or logbooks contained in computer systems, impressions that reflect transactions for the same records and digital signatures or personal identification numbers of authorized participants in such systems. 4. Credit Card Law - This Act establishes the legal framework of the credit card system and consequently regulates relations that arise between all participants in the system. 5. Act to Facilitate Financial Inclusion - Aims to promote financial inclusion, also defines minimum regulations on new electronic means of payment such as electronic money and savings account with simplified requirements.
OVERSIGHT FRAMEWORK	<p>Article 3 of the Organic Law of the Central Bank provides for the responsibility to ensure the normal functioning of internal and external payments. In this regard, the Central Bank exercises oversight of payment systems in the country by monitoring their performance, initiating reforms and issuing regulations needed to promote safety, efficiency and modernization.</p>
PAYMENT SYSTEMS INFRASTRUCTURE	<ul style="list-style-type: none"> > RTGS - property of the Central Bank; allows financial transactions online and in real time. > CCECH- Electronic Clearing of Checks; > Massive Payments System SPM-: owned by Central Reserve Bank; mainly used for government payments, settles in a deferred manner and processes payments in batches. > ACH- Automated Clearing House - operated by the company ACH El Salvador; it is a private system that processes compensation interbank transactions arising from payments to detail (retail) electronic instructions debits and direct credit. <p>Additionally there are other infrastructure such as credit and debit cards, ATMs and others.</p>
REGULATORY PARTNERSHIPS	<p>None provided</p>

PALESTINE

SOUND LEGAL AND REGULATORY FRAMEWORK	<p>The Palestine Monetary Authority (PMA) has passed/issued the following laws and directives to promote financial inclusion:</p> <ul style="list-style-type: none"> > National payment law in 2012 > Licensing and supervision regulations on Micro-finance institutions in 2011 > Anti money laundering law, 2007. > Fair lending instructions to regulate the relationship between lenders and borrowers based on the principles of transparency and disclosure. The instructions have extremely contributed to maintaining the contracting parties' rights in accordance with the laws, regulations and international best practice. > Fees and commissions instructions to enhance the procedures of protecting customers' rights have also been issued. > Disclosure, work ethics, and complaints handling instructions to enhance transparency in the banking system were also put in place.
OVERSIGHT FRAMEWORK	<p>None provided</p>
PAYMENT SYSTEMS INFRASTRUCTURE	<p>The Central Bank of Palestine implemented the following to promote retail payment:</p> <ul style="list-style-type: none"> > National switch system in June 2015 - This provided the main vehicle for efficiently and effectively integrating payment services and streams. It also allows the introduction of new services. > RTGS for payments settlement introduced in October 2010 - This aimed at promoting financial stability in Palestine by ensuring the soundness of clearing and settlement transactions of large payments . > A credit registry system was also established. > Credit scoring system to provide an accurate assessment of current and future borrowers' risk, enhance a competitive relationship among lending institutions was instituted. > Microfinance institutions were linked to the credit registry system to facilitate prompt access of money by potential borrowers.
REGULATORY PARTNERSHIPS	<p>Palestine Monetary Authority and Supreme Judicial Council signed a Memorandum of Understanding (MOU) to enhance the capacity and capabilities of the credit information database by utilizing court rulings information to improve credit report. An MOU was also signed between Financial Follow-Up Unit and Palestinian Anti-Corruption Commission for Combating Money Laundering to enhance cooperation between the two parties, promote the principles of transparency and governance and help protect the Palestinian society from the dangers of the crimes of corruption and money laundering. Likewise, the Palestine Monetary Authority and Palestine Capital Market Authority signed an MOU with regards to the National Strategy on Financial Inclusion.</p>

GHANA

<p>SOUND LEGAL AND REGULATORY FRAMEWORK</p>	<p>There are various laws, regulations, guidelines and policies that facilitate effective access to payment services and products in Ghana. Non-Bank Financial Institutions Act, 2008, Act 774 allows nonbanks and microfinance institutions to play a role in financial intermediation in Ghana. Bank of Ghana guidelines and directives also seek to discourage the use of cash and encourage cashless modes of payment; fair competition and provide complaints procedures and recourse mechanisms for consumer; data protection, cyber crime and AML issues. Other laws and guidelines are the following:</p> <ul style="list-style-type: none"> > Electronic Transactions Act, 2008, Act 772 > Protection Against Unfair Competition Act, 2000, Act 589 > Borrowers and Lenders Act, 2008, Act 773 > Data protection Act, 2012, Act 843 > Anti-Money Laundering Act, 2008, Act 749 > Electronic Money Issuers Guidelines, 2015 > Agent Guidelines, 2015 > Payment Systems Act, 2003, Act 662 > Directive on limit on third party cheque withdrawals at bank counters (Maximum of GH¢ 5,000.00, equivalent of USD 1,250) > Ghana Bankers Clearing House Rules > Ghana Automated Clearing House Direct Credit & Debit Guidelines > Cheque Codeline Clearing with Cheque Truncation Guidelines and Operational Procedures
<p>OVERSIGHT FRAMEWORK</p>	<p>To effectively perform its oversight function, the central bank developed a framework (published in 2013) on the following broad lines:</p> <ul style="list-style-type: none"> > Objectives of payment systems oversight > Risks in payment and settlement systems > The scope of payment system oversight > Bank of Ghana's approach to oversight activities <p>The Bank deploys all the necessary resources to ensure the efficient functioning of the payment system to allow for safe, secure, reliable and timely completion of financial transactions. The Bank of Ghana shall apply the twenty-four 'Principles for Financial Market Infrastructures' (April 2012) issued by the Committee on Payment and Settlement systems of the Bank for International Settlementment (BIS) in collaboration with the Technical Committee of the International Organization of Securities Commissions for its oversight responsibilities. These principles shall be applied to all financial market infrastructures (FMIs) operating in the country, in particular: RTGS, National switch, the Cheque Codeline Clearing with Truncation, Automated Clearing House, the Central Securities Depository, and securities settlement systems.</p>
<p>GOVERNANCE GUIDELINES</p>	<p>The RTGS system in Ghana is called the Ghana Inter-bank Settlement (GIS) system, which started operating in October 2002. It is owned and operated by the Bank of Ghana. and facilitates same day settlement of funds transfer on gross basis among banks for their own account and on behalf of their customers. The system is electronically linked to GhIPSS for the settlement of net positions from retail clearing systems such as e-zwich, cheques Automated Clearing House transfers and other card based transactions. The GIS is also directly linked to the Central Securities Depository to ensure delivery-versus-payment for securities transactions. All universal banks are direct participants, while the rural and community banks are represented by their apex body - ARB Apex Bank. The Social Security and National Insurance Trust, the state owned pension institution, is also a direct participant due its significant involvement in the financial market.</p>
<p>PAYMENT SYSTEMS INFRASTRUCTURE</p>	<p>The Bank established the Ghana Interbank Payment and Settlement System (GhIPSS) to implement its retail payment strategy. Through GhIPSS, the Bank introduced the following:</p> <ul style="list-style-type: none"> > E-zwich biometric smartcard for retail payments (operates online & offline) > Cheque Codeline Clearing (CCC) with Cheque Truncation to shorten the clearing cycle > Ghana Automated Clearing House (GACH) systems for direct debit and direct credit transfers. > National Switch, called gh-link™, which ensured interoperability for ATM and POS devices in Ghana > E-commerce payment platform for online purchases > Online real time interbank funds transfer system.
<p>INCREASING TRANSACTION VOLUMES THROUGH GOVERNMENT PAYMENTS (G2P AND P2G)</p>	<p>Government and other quasi government agencies use modern retail payment channels to pay salary and make other forms of payments to beneficiaries. For example:</p> <ul style="list-style-type: none"> > Pension Payments are made using Automated Clearing House Direct Credit facility > The government has started paying salaries using a biometric smart card, which was extended to all government workers at the end of 2015. > Livelihood Empowerment Against Poverty (LEAP) program payments are made through the biometric smart card. It is a social cash transfer program which provides cash and health insurance to extremely poor households across Ghana to alleviate short-term poverty and encourage long term human capital development. > Payments for cocoa purchases are also being done on pilot basis using the biometric smart card. > The Ghana Electronic Payment Portal (GEPP) is an online payment portal for the payment of services offered by the government. GEPP offers a platform for both Ghanaians home and abroad to access and pay for government services online in real time with payment options such as mobile money, debit and credit cards, cheques as well as cash. Shipping services for delivery are also available on the e-payment portal.

	The GEPP service allows government agencies and departments to view their revenue inflows on a dashboard on real time basis, and this serves as an effective tool for planning. The benefits of the service include the reduction of human traffic at these government departments and agencies, provision of audit trail of all transactions, fraud mitigation and reduced administrative costs.
REGULATORY PARTNERSHIPS	The Bank of Ghana regularly engages other regulatory bodies involved in the supervision of the financial system. In particular, it consults and engages the National Insurance Commission (the regulator of insurance business) and the Securities and Exchange Commission to harmonize policies aimed at enhancing the financial system. The Bank also engages the National Communications Authority (NCA) on issues that affect the mobile network operators engaging in mobile money business. A memorandum of understanding (MOU) is being put in place with the NCA to facilitate joint supervision of the mobile money business in Ghana.
EMERGING MODELS AND TECHNOLOGY	None provided
INDUSTRY CONSULTATION	None provided

KENYA

SOUND LEGAL AND REGULATORY FRAMEWORK	The Kenyan payments landscape, which is dotted by both banks and non-banks, is regulated under various legal tools to ensure they are safe and efficient thereby fostering stability in the economy. Banks and microfinance banks are regulated under “The Banking Act,” and “The Microfinance Act, respectively, while non-bank payment service providers are covered under the following laws and regulations: <ul style="list-style-type: none"> > NPS Act 2011 which provides for the regulation and supervision of payment systems and payment service providers, and for connected purposes. > NPS Regulations 2014 that provides for the authorization and oversight of payment service providers, designation of payment systems, designation of payment instruments and AML measures. > Other Guidelines Pursuant to the Central Bank of Kenya (CBK) Act (Cap 491)
OVERSIGHT FRAMEWORK	CBK performs the oversight function to promote safety and efficiency of Kenya’s Payments System, ensure that soundness of the National Payment System is maintained and hence financial system stability. Said function is embodied in the NPS Act as well as NPS regulations.
GOVERNANCE GUIDELINES	The RTGS is owned and operated by Central Bank of Kenya. The participants are governed through signing of participation agreements and complying with the Systems Rules and procedures. In the retail payment, efforts towards self-governance by the industry through a payment system management body (PSMB) have commenced. This is pursuant to the NPS Act 2011 and NPS Regulations 2014 which provides for recognition of such PSMBs.
PAYMENT SYSTEMS INFRASTRUCTURE	CBK in liaison with other stakeholders in the payments industry have initiated and implemented projects to increase access to financial services and infrastructures. Payment Cards industry - The adoption of EMV standards by acquirers and issuers (ATMS, POS and cards) has enabled the users benefit from access of card services across a wider network. A number of merchants have embraced card payments thus increasing touch points. Mobile Money Transfer Services - The NPS Regulations 2014 provides for non-exclusivity of agents, which has increased financial inclusion for subscribers of the services.
INCREASING TRANSACTION VOLUMES THROUGH GOVERNMENT PAYMENTS (G2P AND P2G)	G2P are done primarily through the RTGS and the Kenya Electronic Payment and Settlement System (KEPSS). On the other hand, P2G payment initiatives are ongoing through the National Single Window, E-Citizen portal projects and Huduma Centres spread across the country.
REGULATORY PARTNERSHIPS	None provided
EMERGING MODELS AND TECHNOLOGY	None provided
INDUSTRY CONSULTATION	None provided

MALAWI

SOUND LEGAL AND REGULATORY FRAMEWORK	None provided
OVERSIGHT FRAMEWORK	None provided
GOVERNANCE GUIDELINES	None provided
PAYMENT SYSTEMS INFRASTRUCTURE	<p>With funding from the World Bank under the Financial Sector Technical Assistance Project (FSTAP), the Reserve Bank of Malawi (RBM) implemented the Malawi Interbank Transfers and Settlement System (MITASS) and the National Switch. Implementation of Microfinance Institutions Transaction Processing Hub (MFITPH) also funded under FSTAP is underway:</p> <ul style="list-style-type: none"> > MITASS, which went live in December 2014, is an automated transfer system (ATS) based solution that combines features of an RTGS and ACH on a single platform and runs together with a Central Securities Depository (CSD). MITASS has enabled Malawi to have a fully integrated payment system that links all banks including the revenue authority and Government. Meanwhile, some banks have connected their mobile payments and Internet Banking solutions to MITASS for processing of interbank payment obligations. > The National Switch became operational in February 2015 and enabled all banks' ATMs in the country to be connected. Meanwhile, POS devices are being connected so that all domestic transactions done through locally issued cards are settled in Malawi Kwacha via MITASS. Besides facilitating integration of MNO-led mobile payments solutions with commercial banks' systems, the Switch will also enable interoperability of mobile payments. > The MFITPH will link all MFIs in the country to ease processing of transactions and this will also be linked to the National Switch so that MFI clients can access any ATM and/or POS.
INCREASING TRANSACTION VOLUMES THROUGH GOVERNMENT PAYMENTS (G2P AND P2G)	All salary payments are effected through MITASS and civil servants are able to access their funds on the same day Government uploads appropriate payment batches into the settlement system. Efforts are underway to migrate the remaining payment streams (e.g. Other Recurrent Transactions (ORT) and pension payments) onto MITASS.
REGULATORY PARTNERSHIPS	In order to ensure a well-coordinated approach to oversight of MNO-led mobile payments, RBM in conjunction with the Malawi Communications Regulatory Authority (MACRA) established a Joint Working Committee (JWC) through a memorandum of understanding. The JWC meets quarterly to review developments in the banking and telecommunication industry with a special focus on mobile payments.
EMERGING MODELS AND TECHNOLOGY	<p>Banks' retail as well as corporate clients are able to effect interbank payment obligations using mobile or Internet Banking solutions via MITASS. In order to increase convenience in transaction processing via mobile and Internet Banking solutions, MITASS provides for three clearing and settlement sessions per day. In this regard, funds are made available to the beneficiaries within the same day the payer transfers funds.</p> <p>Since the National Switch will also enable integration of MNO-led solutions with commercial banks' backend systems as well as interoperability of mobile payments, it is envisaged that subscribers of different mobile payments solutions (whether bank-led or telco-led) will be able to access payments services from any point with much ease. While ownership and operation of ATMs and POS is currently restricted to banks, RBM is considering opening up for independent ATM and POS operators to participate in the payments arena as long as their solutions meet the minimum technical requirements of the National Switch. This development will increase access points across the country and fill the gap left by banks.</p>
INDUSTRY CONSULTATION	Besides the JWC, RBM established a National Taskforce on Electronic Payments (NTEP) which was mandated, among others, to formulate and implement a five-year Roadmap aimed at digitizing payments in the country through a collaborative approach. NTEP is chaired by RBM and membership is drawn from the following institutions: Financial Intelligence Unit, MACRA, Competition and Fair Trading Commission, Institute of Chartered Accountants in Malawi, Insurance Association of Malawi, representatives of MNOs, Bankers Association of Malawi and Malawi Government (through the Accountant General's Office and the Ministry of Information, Communications Technology & Civic Education). This initiative has enhanced interagency coordination in implementing the Roadmap.

SUDAN

SOUND LEGAL AND REGULATORY FRAMEWORK	<p>Central bank of Sudan (CBOS) has passed/issued the following laws, regulations, polices and circulars to facilitate the use of payment systems products:</p> <ul style="list-style-type: none"> > Central Bank of Sudan Act 2002 > Banking Regulations Act 2004 > Payment Systems Regulations in 2013 > Anti-money laundering and the financing of terrorism Act 2014. > Circular No (8/2014): Regulatory and Supervisory requirements for the Institutions under the Supervision of Central Bank of Sudan on Anti-money Laundering and Combating the Financing of Terrorism > The Electronic Transactions Act, 2007 > Licensing Payment systems services regulations
OVERSIGHT FRAMEWORK	<p>CBOS has statutory responsibility for the payment and settlement systems in Sudan, as provided in the Bank of Sudan Regulation Act 2004. In particular, this act empowers the Bank of Sudan to “promote, regulate and supervise payment and settlement systems” as one of its functions. The Bank’s responsibility for payment and settlement systems is further deepened by the promulgation of the Payment Systems Oversight Regulations 2013. This set of regulations, which is dedicated to payment and settlement systems, authorizes the Bank to establish, operate as well as designate payment systems for its supervision, in the interest of the public.</p> <p>Oversight Activities:</p> <ol style="list-style-type: none"> 1. Oversee and follow-up of payment systems and authorize of its participants. 2. Study, analyze and assess the risks posed to national payment systems. 3. Issuance of directives to prevent the risks related to payment systems and minimize them. 4. Conduct onsite and offsite audits to payment systems providers and participants (operators, banks and private sector) to ensure that efficient, reliable and safe, payment systems services had been provided to the public. 5. Assess and evaluate the security posture of payment system components and entities by periodically evaluating security risks and controls. 6. Monitoring and evaluation of payment systems performance.
GOVERNANCE GUIDELINES	None provided
PAYMENT SYSTEMS INFRASTRUCTURE	<p>CBOS implemented the following:</p> <ul style="list-style-type: none"> > National Switch: launched in 2006, it provides interoperable, robust national payments infrastructure, to provide payment services for all cardholders through ATMs and POS terminals, across the nation; as well through Short Messaging Service (SMS). <p>Services provided through the terminals integrated with the National Switch include: -</p> <ul style="list-style-type: none"> > Cash withdrawals > Balance Inquiry. > Mini statement > Change personal identification number (PIN) > Account transfer > Cash voucher generation > Voucher amount withdrawal. > Value added services (VAS) such as purchase and bill payments > Electronic Cheque Clearing (ECC): launched in 2006, an electronic image-based cheque clearing solution, designed to provide end-to-end nationwide clearing of checks within the same day. PS-ECC provides the means to electronically transfer check images and completely replaces the traditional physical routines of moving paper checks between the banks and clearing houses. > RTGS: launched in 2011: for large payments settlement aimed at promoting financial stability by ensuring the soundness of real time clearing and settlement transactions between banks. > Credit Information and Scoring Agency has established in 2011. > Mobile payment (planned to be launched by September 2016)
INCREASING TRANSACTION VOLUMES THROUGH GOVERNMENT PAYMENTS (G2P AND P2G)	None provided
REGULATORY PARTNERSHIPS	None provided
EMERGING MODELS AND TECHNOLOGY	None provided
INDUSTRY CONSULTATION	In 2006 CBOS established a consultation body “Participants Group” from the key stakeholders in the payment systems sector “banks only” for effective collaboration, knowledge sharing and consultation in the implementation of national Payment systems projects and strategy.

JORDAN

<p>SOUND LEGAL AND REGULATORY FRAMEWORK</p>	<p>There are various laws, and regulations issued by The Central Bank of Jordan (CBJ) to facilitate effective access to payment services and products in Jordan. These include the following:</p> <ul style="list-style-type: none"> > Electronic Transactions Law No. (15), 2015. Article (20 & 21) and Article (22) that gives the explicit authority and power to the CBJ to oversee payments systems in the Kingdom and to license the payments service providers and e-money issuers. > Jordan Mobile Payment service Instructions, 2013. > Jordan Mobile Payment framework, 2013 that allows both banks and non-banks to provide mobile payments and e-money. > Regulatory Framework Of The Electronic Bill Presentment and Payment System, 2015. > Regulatory Instructions Of The Electronic Bill Presentment and Payment System, 2015. > Regulatory rules for the electronic clearing cheques system, 2006. > Treating customers fairly, 2012. applied to banks only. > Anti-money laundering and terrorism financing law 42, 2007 > Anti-money laundering and terrorism financing for the payment service provider’s instructions by mobile phone , 2014. > Microfinance Companies bylaw 2015 articles (8 & 21). > Central bank new law; the “ central bank law” to ensure finality and irrevocability of settlements. > The Competition Law No. (49) 2002.
<p>OVERSIGHT FRAMEWORK</p>	<p>On April 11, 2015, the CBJ issued and approved an oversight scope as a first step to developing a comprehensive one. As of writing, it is already in its final stages of issuing an oversight framework according to the best practices and standards.</p>
<p>GOVERNANCE GUIDELINES</p>	<p>The country’s retail payments and clearing systems are co-owned by the central bank and the commercial banks within a body called The National Payment Council (NPC), whose organizational framework is consistent with the main governance principles: integrity, transparency, accountability, responsibility and segregation of authority. The systems are being operated by the central bank. In the central bank, the payments operations and payments oversight are within the same organizational unit, but have different reporting lines. In particular, the oversight reports directly to the Deputy Governor. As of Sept. 4th, 2016, the Board of Directors of the CBJ approved the segregation of the Payments Systems Dept. into new separate departments, Payments Systems Oversight, and Payments Systems Operations and Financial Inclusion.</p>
<p>PAYMENT SYSTEMS INFRASTRUCTURE</p>	<p>The CBJ along with the banks succeeded in launching and implementing a very ambitious strategy (2013-2016) to develop safe and efficient payment systems in Jordan, and to move from cash based payment environment into cash-lite economy. In particular, the following were put in place:</p> <ul style="list-style-type: none"> > Real Time Gross Settlement System (RTGS- JO): the only real time electronic interbank gross payment and settlement system in Jordan. It is a multi-currency system providing settlement finality in Jordanian dinar, US dollar, Euro and Pound sterling and taking into consideration best standards. All retail payments are eventually settled in the RTGS-JO. > Electronic clearing cheques (ECC): it is a system that clears inter-bank JD denominated cheques on a full truncation arrangement and settles the multi-lateral net positions on a T+0 basis at the RTGS-JO. > Card Network (JO-Net & MEPS): Private switch that process all the domestic ATM and POS transactions. > Mobile Payment System (JoMoPay): A centralized national switch that links the licensed banks and Mobile Payment Service Providers in Jordan and allows them to open mobile wallets according to the CBJ regulations for Mobile Payment. The switch generates a net clearing position that is settled in the RTGS. > Electronic Bill Payment and Presentment System (EBPPS): is a centralized web service payment gateway that enables banks and billers to send and receive financial requests through the “eFAWATEERcom” network for the purpose of bills presentment and payment, it’s also connected to CBJ systems for daily automated settlement. > International Bank Account Number (IBAN) : CBJ mandate all banks in Jordan to implement IBAN and STP in the first quarter of 2014. > Credit Bureau: (established in 2015). <p>CBJ infrastructures promote efficiency, transparency, network expansion, hardware expansion, high availability solutions and a level playing field for all participants. Within the infrastructure, the payment systems operate from the primary site, with a secondary site, and a disaster recovery site. As for the networks within the systems, the participants use VPN through two different sources using different technologies in addition to swift network.</p> <p>National Identification Number and cards for individuals and institutions. Starting August 2016, the government launched national identification smart cards and started to replace the old cards with the smart ones.</p> <p>Biometric systems implemented by international organizations for the refugees.</p> <p>Iris and other biometric identification systems provided by the banks to verify their customers transactions.</p>
<p>INCREASING TRANSACTION VOLUMES THROUGH GOVERNMENT PAYMENTS (G2P AND P2G)</p>	<p>In promoting the use of e-payments in the government sector, BNM and the banking industry continuously engage with the various government agencies to promote the adoption of e-payments for both payment and collection. Approximately 99% of Federal Government’s payments (e.g. salary and pension payments) are made using e-payments. E-payments are also used to facilitate efficient distribution of social benefits such as-</p> <ul style="list-style-type: none"> > BR1M, a scheme introduced by the Government to offer monetary assistance to low-income household and individuals, where the monetary assistance are credited directly into the bank account of the recipients; and > MyKasih, a nationwide food-aid distribution supported by several government agencies, where the Government issued identification cards i.e. MyKad is used to facilitate the distribution of basic necessities to the poor. <p>The Government of Malaysia had also established a taskforce participated by relevant government departments and agencies and BNM to drive the usage of e-payments in the public sector.</p>

REGULATORY PARTNERSHIPS	BNM had established an MoU with the Securities Commission Malaysia (SC), the capital markets regulatory body, to have joint regulatory oversight in relation to any system for the payment, clearing, transfer or settlement of securities. Apart from the SC, BNM also conducts regular engagements with the Malaysian Communications and Multimedia Commission (the communications authority) to discuss and coordinate actions to enhance the payment and settlement systems and the delivery of payment services in Malaysia.
CONSUMER FINANCIAL LITERACY	<p>BNM and the financial industry have made continuous efforts to promote greater awareness and instill confidence in the use of cost-effective payment instruments and services (in particular e-payments) among consumers and businesses. Such efforts include promoting online banking services, fund transfers via ATM, the usage and acceptance of payment cards, and safe practices in conducting e-payment transactions through nationwide roadshows, media engagements, workshops and other outreach programs.</p> <p>To provide financial education to the young, financial education elements are now incorporated as part of the syllabus for primary schools and will be extended to secondary schools by 2017. BNM's subsidiary, the Credit Counselling and Debt Management Agency, has also introduced a program (i.e. POWER! initiative) in 2011 targeting young individuals and first time borrowers aged between 18 - 30 years to provide them with practical financial knowledge and skills to effectively manage their finances, and tools to aid them in making sound and responsible borrowing decisions. The program also highlights the consequences of financial decisions in real life situations, focusing on common financial products such as credit cards, hire purchase and housing loans.</p>
EMERGING MODELS AND TECHNOLOGY	Financial services in Malaysia are currently delivered via multiple channels, including Internet banking, mobile banking, ATMs and POS terminals. BNM encourages the financial industry to leverage on technology to expand the access and usage of financial services. For instance, the financial industry is currently undertaking an initiative to expand the number of POS terminals to facilitate wider acceptance of payment cards at merchants' premises. Efforts are also being made to promote the use of the mobile channel as a convenient channel for banking and payment transactions leveraging on the high penetration of about 1.5 mobile phones per capita in Malaysia.
INDUSTRY CONSULTATION	<p>The National Payments Advisory Council (NPAC) is an advisory body established in 2001 to provide strategic direction, market input and relevant international experience on key payment system initiatives. The NPAC is chaired by the BNM Governor and participated by representatives from relevant regulators, foreign central banks, government departments, banking and insurance associations, major banks and key payment system operators.</p> <p>Over the years, the NPAC has been instrumental in providing strategic insights and direction that led the formulation of the 10-year roadmap in BNM's Financial Sector Blueprint to chart the development of the payment system in Malaysia. Efforts are currently being made to transform the NPAC to be more inclusive and effective as a strategy setting and industry consultation and coordination body comprising of three (3) bodies, namely:</p> <ul style="list-style-type: none"> > A Steering Committee to set high-level strategic objectives to guide the payment system development in the country; > A Service Provider Consultative Group to serve as a body to consult, coordinate and implement industry efforts in the area of payment systems to promote collaboration and avoid duplication; and > A User Consultative Group to serve as a body for BNM and the industry to solicit user feedback on existing and future payment services.

MALAYSIA

SOUND LEGAL AND REGULATORY FRAMEWORK	<p>Bank Negara Malaysia (BNM) fosters an enabling environment for various market players (bank or non-bank) to operate and provide payment services in Malaysia through the relevant laws and policies. In this regard, BNM is empowered under the Financial Services Act 2013 (FSA) and the Islamic Financial Services Act 2013 (IFSA) to specify standards and issue directions for the purpose of promoting the safety, integrity, efficiency and reliability of the payment systems and payment instruments in Malaysia.</p> <p>In regulating payment systems and instruments, BNM had issued various standards, circulars and guidelines, including:</p> <ul style="list-style-type: none"> > Guidelines on Electronic Money (2008) > Guidelines on Provision of Electronic Banking Services by Financial Institutions (2010) > Policy documents on Credit Card, Debit Card and Charge Card (2014) > Payment Card Reform Framework (2014) > Circular on Managing Risks of Electronic Banking, Direct Debit and Risks Associated with Payment Instruments (2014) <p>With respect to consumer protection, BNM had also issued various regulations, standards and guidelines in areas such as product disclosure and transparency, complaints handling and establishment of a Financial Ombudsman Scheme.</p> <p>In addition, laws have been enacted to counter money-laundering and terrorism financing, protect data privacy and promote competition. These include-</p> <ul style="list-style-type: none"> > Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001 > Personal Data Protection Act 2010 > Competition Act 2010.
OVERSIGHT FRAMEWORK	BNM plays the role of overseer in promoting the safety, integrity, reliability, and efficiency of payment systems and instruments, and to safeguard public interest. In performing this role, BNM formulates regulatory framework and conducts oversight on both large value and retail payment systems. Such role is provided for in the FSA 2013 and the IFSA 2013 that came into force in June 2013, replacing the Payment System Act 2003 and incorporating strengthened provisions and a broader range of supervisory and enforcement tools to support BNM in the performance of its oversight functions.

GOVERNANCE GUIDELINES	<p>Prior to the establishment of a payment subsidiary, i.e. the Malaysian Electronic Clearing Corporation Sdn. Bhd. (MyClear) in 2008, BNM undertook both the oversight and operational responsibilities of systemically important and system-wide important payment and settlement systems, i.e. the Real Time Gross Settlement System (RENTAS) and the National Electronic Cheque Information Clearing System (eSPICK) respectively. With the establishment of MyClear, the oversight of payment and settlement systems is segregated from the operational responsibility of BNM, which reinforces BNM's oversight responsibilities and supports more effective surveillance, independent assessment, evaluation and monitoring of the different types of risk on the major payment systems in Malaysia.</p> <p>The FSA 2013 and the IFSA 2013 empowers BNM to issue standards on corporate governance (including fit and proper requirements for directors or senior officers) and requirements to establish operational arrangements (including payment system rules) to strengthen the internal governance and risk management of the regulated financial institutions. To promote transparency, BNM had also issued Guidelines on Product Transparency and Disclosure.</p>
PAYMENT SYSTEMS INFRASTRUCTURE	<p>Large value payment and settlement system</p> <ul style="list-style-type: none"> > Real-time Electronic Transfer of Funds and Securities System (RENTAS), which enables the transfer and settlement of high value interbank funds and scripless securities transactions. <p>Retail payment systems in Malaysia include the following:</p> <ul style="list-style-type: none"> > Shared ATM Network, which enables bank customers to access their funds from any of the participating banks' ATMs. Services offered include domestic and cross-border cash withdrawals, electronic funds transfers, mobile prepaid top-up and credit card and loan repayment. > Interbank GIRO, a payment system that provides batch-mode funds transfer services among the participating banks. > Instant Transfer, a payment system that provides real-time funds transfer services among the participating banks. > Financial Process Exchange, an Internet-based multi-bank payment platform that leverages on the Internet banking services of banks to offer online payment for electronic commerce (e-commerce) transactions. > Direct Debit, an interbank collection service for regular and recurring payments enabling automated collection directly from a customer's bank account at multiple banks with a single authorization. > JomPAY, an open electronic bill payments platform which leverages on the combined infrastructure and network of the banking industry to allow any registered biller to receive payments from customers of the participating banks. > MyDebit, a domestic debit card scheme which allows cardholders to make payment using their ATM cards. <p>Credit bureau</p> <ul style="list-style-type: none"> > Central Credit Reference Information System (CCRIS), a system that collects credit information on borrowers from financial institutions in order to facilitate credit and financial management decisions among borrowers and financial institutions. <p>Repository of information related to dishonoured cheques</p> <ul style="list-style-type: none"> > Dishonoured Cheque Information System (DCHEQS), a computerised database system to collect, process, store and generate information related to dishonoured cheques. The system facilitates a market-based mechanism to promote confidence in the use of cheques as a payment instrument and to provide a reference for financial institutions in approving the opening of current account and closing of accounts due to frequent issuance of dishonoured cheques. <p>National identification and biometric system</p> <ul style="list-style-type: none"> > MyKad, a national identity smart card issued to all Malaysians by the Government of Malaysia, which incorporates both the photograph and fingerprint biometric information of the cardholder to facilitate identity verification at government counters, financial institutions and other authorized counters. In addition, MyKad may incorporate applications that can be accessed quickly and securely to undertake a variety of electronic transactions such as payment and access.
INCREASING TRANSACTION VOLUMES THROUGH GOVERNMENT PAYMENTS (G2P AND P2G)	<p>In promoting the use of e-payments in the government sector, BNM and the banking industry continuously engage with the various government agencies to promote the adoption of e-payments for both payment and collection.</p> <p>Approximately 99% of Federal Government's payments (e.g. salary and pension payments) are made using e-payments. E-payments are also used to facilitate efficient distribution of social benefits such as-</p> <ul style="list-style-type: none"> > BR1M, a scheme introduced by the Government to offer monetary assistance to low-income household and individuals, where the monetary assistance are credited directly into the bank account of the recipients; and > MyKasih, a nationwide food-aid distribution supported by several government agencies, where the Government issued identification cards i.e. MyKad is used to facilitate the distribution of basic necessities to the poor. <p>The Government of Malaysia had also established a taskforce participated by relevant government departments and agencies and BNM to drive the usage of e-payments in the public sector.</p>
REGULATORY PARTNERSHIPS	<p>BNM had established an MoU with the Securities Commission Malaysia (SC), the capital markets regulatory body, to have joint regulatory oversight in relation to any system for the payment, clearing, transfer or settlement of securities.</p> <p>Apart from the SC, BNM also conducts regular engagements with the Malaysian Communications and Multimedia Commission (the communications authority) to discuss and coordinate actions to enhance the payment and settlement systems and the delivery of payment services in Malaysia.</p>

CONSUMER FINANCIAL LITERACY	<p>BNM and the financial industry have made continuous efforts to promote greater awareness and instill confidence in the use of cost-effective payment instruments and services (in particular e-payments) among consumers and businesses. Such efforts include promoting online banking services, fund transfers via ATM, the usage and acceptance of payment cards, and safe practices in conducting e-payment transactions through nationwide roadshows, media engagements, workshops and other outreach programs.</p> <p>To provide financial education to the young, financial education elements are now incorporated as part of the syllabus for primary schools and will be extended to secondary schools by 2017. BNM's subsidiary, the Credit Counselling and Debt Management Agency, has also introduced a program (i.e. POWER! initiative) in 2011 targeting young individuals and first time borrowers aged between 18 - 30 years to provide them with practical financial knowledge and skills to effectively manage their finances, and tools to aid them in making sound and responsible borrowing decisions. The program also highlights the consequences of financial decisions in real life situations, focusing on common financial products such as credit cards, hire purchase and housing loans.</p>
EMERGING MODELS AND TECHNOLOGY	<p>Financial services in Malaysia are currently delivered via multiple channels, including Internet banking, mobile banking, ATMs and POS terminals. BNM encourages the financial industry to leverage on technology to expand the access and usage of financial services. For instance, the financial industry is currently undertaking an initiative to expand the number of POS terminals to facilitate wider acceptance of payment cards at merchants' premises. Efforts are also being made to promote the use of the mobile channel as a convenient channel for banking and payment transactions leveraging on the high penetration of about 1.5 mobile phones per capita in Malaysia.</p>
INDUSTRY CONSULTATION	<p>The National Payments Advisory Council (NPAC) is an advisory body established in 2001 to provide strategic direction, market input and relevant international experience on key payment system initiatives. The NPAC is chaired by the BNM Governor and participated by representatives from relevant regulators, foreign central banks, government departments, banking and insurance associations, major banks and key payment system operators.</p> <p>Over the years, the NPAC has been instrumental in providing strategic insights and direction that led the formulation of the 10-year roadmap in BNM's Financial Sector Blueprint to chart the development of the payment system in Malaysia. Efforts are currently being made to transform the NPAC to be more inclusive and effective as a strategy setting and industry consultation and coordination body comprising of three (3) bodies, namely:</p> <ul style="list-style-type: none"> > A Steering Committee to set high-level strategic objectives to guide the payment system development in the country; > A Service Provider Consultative Group to serve as a body to consult, coordinate and implement industry efforts in the area of payment systems to promote collaboration and avoid duplication; and > A User Consultative Group to serve as a body for BNM and the industry to solicit user feedback on existing and future payment services.

MEXICO

SOUND LEGAL AND REGULATORY FRAMEWORK	<p>In 2014, the Mexican Central Bank (Banxico), in collaboration with the National Banking and Securities Commission, issued an amendment to Law for Transparency and Legal Order of Financial Services. This is to include principles that will allow new participants in several payment systems (credit and debit cards, cheques, transfers and payment orders) that were controlled by the banking institutions. Laws regarding Popular Finance and Cooperative Financial Entities have also been updated to support the offering of new payment media and allow account opening with fewer requirements.</p> <p>Some regulation related with financial inclusion and payment systems which has been recently updated are:</p> <ul style="list-style-type: none"> > Law of Protection and defense of financial services users (CONDUSEF) > Law of credit institutions > Law for Transparency and Legal Order of Financial Services > AML secondary dispositions > Electronic Media secondary dispositions > Outsourcing secondary dispositions > Payment Media networks secondary dispositions
OVERSIGHT FRAMEWORK	<p>While Banxico is responsible for issuing payment systems regulation, the National Banking and Securities Commission (CNBV) has supervisory faculties. In particular, CNBV has a Division on specialized technological risk assessment as well as a new division for supervision of relevant payment network participants. In addition, National Commission on Financial Services Users Defense (CONDUSEF) performs consumer protection activities.</p>
GOVERNANCE GUIDELINES	<p>In 2011, a presidential act was issued to create the National Council on Financial Inclusion (CONAIF) with the participation of Central Bank (Banxico), CNBV, Ministry of Finance, CONDUSEF, Insurance and Guaranty Commission, Pension Funds Commission, Banking Insurance Institute and The National Treasury. This Council has the mandate to propose any regulatory and government action to promote Financial Inclusion. Its role includes the following, among others:</p> <ul style="list-style-type: none"> > to formulate guidelines on National Financial Inclusion Policy > to propose criteria for planning and implementation of policies and programs on financial inclusion in federal, regional, state and municipal levels > to determine medium and long term goals for financial inclusion > to propose general schemes for effective organization, coordination and communication related to financial inclusion in the different areas of government activities and the private sector within the country

<p>PAYMENT SYSTEMS INFRASTRUCTURE</p>	<p>Although SPEI is the main payment system (operated by the central bank), there are traditional payment switches that operates an inter-connected payments network, namely, E-Global and PROSA in card processing. There are also new payment networks such as: “Transfer” (a mobile payments switch); “Entura” (mobile services for Popular Finance Institutions); and “Cecoban” (cheque settlement that will start mobile services such as P2P, P2B, etc).</p> <p>Furthermore, there are fast-growing agencies networks (commercial establishments who receive deposits and perform withdrawals on behalf of financial institutions) that have increased the number of users with innovative payment services.</p>
<p>INCREASING TRANSACTION VOLUMES THROUGH GOVERNMENT PAYMENTS (G2P AND P2G)</p>	<p>The Mexican Government saves an estimated MXN \$17 billion (US\$1.27 billion) per year thanks to a strategy shift to electronic distribution of many government payrolls, pensions and social benefits. The eventual savings were the result of a sustained, 15-year effort by Mexico’s Ministry of Finance and the Mexican Central Bank (Banxico) that included work to centralize as well as digitize payments. Beginning 2010, the government further prioritized the shift, creating significant momentum and progress over the last six years.</p> <p>The electronic payments are combined with treasury centralization: centralization definitively reduced costs to government and allowed for better controls, budgeting and oversight by TESOFE (Federal Treasury) over all federal expenditure. Coordination among the different payments providers and designing appropriate incentives were essential part of a successful change strategy.</p>
<p>REGULATORY PARTNERSHIPS</p>	<p>The creation of the National Council on Financial Inclusion (CONAIF) is the main effort to coordinate actions between financial authorities in Mexico toward Financial Inclusion. Mexico’s participation with FI helped to impulse government initiatives with specific objectives.</p> <p>The financial authorities who participate in CONAIF are committed to cooperate in order to propose, plan, implement and follow-up specific financial inclusion initiatives.</p>
<p>CONSUMER FINANCIAL LITERACY</p>	<p>The protection and defense of the user’s rights and assets is the main focus of the National Commission for the Protection and Defense of the Financial Services Users (CONDUSEF), Its mission is to “promote and spread the financial education and transparency in order to make well informed decisions about the benefits, costs and risks of the offered products and services in the Mexican Financial System; as well as protecting user’s assets through supervising and regulating the financial institutions, providing services that advise and support them in their rights defense”. This is carried out through various media communication, online courses and itinerant events in different communities.</p> <p>On the other hand, the financial authorities who participate in CONAIF must establish mechanisms for sharing information on financial inclusion among agencies and public entities performing programs and actions related to financial inclusion, including those regarding financial education.</p>
<p>EMERGING MODELS AND TECHNOLOGY</p>	<p>In México, only authorized financial entities can take deposits from the people. For this reason, any electronic service (mobile banking, internet monetary services, or even electronic wallets) must be associated to a deposit account. To comply with this restriction, Telco and FinTech companies have created joint ventures with banks or other financial entities to offer new products.</p> <p>Among mobile banking products the main participants are:</p> <ul style="list-style-type: none"> > “Transfer” (Banamex, Inbursa, Coppel).-Operates by text message; does not require smartphone. > “Bancomer Móvil” (Bancomer).- User needs to download an app. > “SuperMóvil” (Santander).-It can be used through the phone browser. > “Entura Movil” (Cooperatives). - SMS; does not require smartphone.
<p>INDUSTRY CONSULTATION</p>	<p>The process for issuing new Federal regulation in México requires the evaluation of the Federal Commission for Regulatory Improvement (COFEMER) in order to avoid over-regulated issues. The process includes public feedback through publication of new rules on the COFEMER web page and receiving comments from any interested party. Each public comment must be attended by the issuer entity.</p> <p>Before the initiation of said process, financial authorities discuss draft rules with the associations of the sectors involved (Banks, Cooperatives, Credit Unions, etc.) to obtain comments and recommendations.</p>

PHILIPPINES

SOUND LEGAL AND REGULATORY FRAMEWORK	<p>While the Philippines awaits for the passing of its Payment Systems Act, the Bangko Sentral ng Pilipinas (BSP) has already issued a number of regulations to facilitate the use of retail payment systems and promote financial inclusion in the country.</p> <p>These include the following, among others:</p> <ul style="list-style-type: none"> > Circular 649 series of 2009: Guidelines governing the issuance of electronic money (e-money) and the operations of electronic money issuers (EMI) in the Philippines - This encouraged the use of e-money, which was seen as an effective tool to provide financial services to Filipinos in far flung areas and small islands that are already within the reach of mobile network. > Circular 704 series of 2010 - Guidelines on Outsourcing of Services by EMIs to Electronic Money Network Service Providers (EMNSP) - This empowers small banks/EMIs to offer e-money products despite their lack of technical capability > Circular 706 series of 2011 - Updated Anti-Money Laundering Rules and Regulations - this included, among others, relaxing KYC regulations to promote financial inclusion > Circular 857 series of 2014 - BSP Regulations on Financial Consumer Protection - this framework provides for an enabling environment that protects the interest of financial consumers and institutionalizes the responsibilities of all stakeholders
OVERSIGHT FRAMEWORK	<p>On 30 June 2006, the Monetary Board (MB) in its Resolution No. 847 approved the payments and settlements organization set-up for the BSP. This included, among others, mandating the Core Information Technology Specialist Group (CITSG) of the Supervision and Examination Sector to oversee payment and settlement systems of banks and other operators/network of systemically important payment systems (both wholesale and retail). Pending the passing of Payment Systems Act, the oversight function is limited only to those operated by BSP-supervised institutions such as banks, non-bank financial institutions (NBFIs) and e-money issuers (EMIs).</p>
GOVERNANCE GUIDELINES	<p>On 9 December 2015, the BSP, together with industry stakeholders, launched the National Retail Payment System (NRPS) framework. NRPS is a policy and regulatory framework which aims to establish a safe, efficient, reliable and affordable retail payment system in the country by defining high-level policies, standards and governance principles covering retail payment operations and infrastructures.</p> <p>Currently, governance over retail payments is driven by the major clearing switch operators in the country, which tend to do business on a silo approach and result to certain inefficiencies. Under the NRPS framework, governance shall be separated from the actual clearing operations. The BSP shall exercise oversight over the NRPS through the Payment System Management Body (PSMB). The PSMB, which shall be composed of all qualified direct clearing participants, is a self-governing industry body that is to be duly recognized by the BSP to formulate and enforce payment rules and regulations.</p>
PAYMENT SYSTEMS INFRASTRUCTURE	<p>There are two (2) major clearing switch operators that cater to retail payments in the country. These are:</p> <ul style="list-style-type: none"> > BancNet - an interbank network connecting the ATM network of more than eighty (80) banks in the Philippines. Its core services include: ATM and POS switching, interbank funds transfer, bills payment switching, internet payment gateway and payment to government entities. > Philippine Clearing House Corporation (PCHC) - incorporated in 1977 as private corporation co-equally owned by all commercial banks with the main purpose of automating the check clearing system. Currently, they operate the following systems: <ul style="list-style-type: none"> - Electronic Check Clearing System (ECCS) - implemented in 1999 to promote faster exchange of value. This enabled banks to transmit clearing checks data electronically to PCHC and deliver corresponding physical items later. - Electronic Peso Clearing and Settlement (EPCS) - an interbank account-to-account fund transfer system that supports bulk, recurring, non-time sensitive payment and collection transactions - Philippine Domestic Dollar Transfer System (PDDTS) - facility used by the banking industry for the settlement of USD transactions between banks by moving US dollar funds from one Philippine bank to another on the same day, without having to go through correspondent banks in the US. In particular, end-of-day net positions of banks arising from Overseas Filipino Worker (OFW) remittances are the ones coursed through PCHC. Other types of PDDTS transactions are coursed through the Philippine Securities Settlement Corporation.
INCREASING TRANSACTION VOLUMES THROUGH GOVERNMENT PAYMENTS (G2P AND P2G)	<p>One of the priority projects under the NRPS is the digitization of government collections and payments through collaboration with pertinent government agencies, namely, Department of Finance, Department of Information and Communications Technology, Bureau of Treasury, Bureau of Internal Revenue and Department of Budget and Management.</p>
REGULATORY PARTNERSHIPS	<p>A Financial Sector Forum (FSF) was formally established in 2004 upon the signing of a Master Memorandum of Agreement (MOA) by the heads of four participating agencies, namely, BSP, Securities and Exchange Commission (SEC), Insurance Commission (IC) and Philippine Deposit Insurance Corporation (PDIC). The FSF is essentially a voluntary cooperative endeavor of the aforementioned agencies to provide an institutionalized framework for coordinating the supervision and regulation of the financial system, while preserving the mandate of each agency. It also provides a venue for the agencies to update each other on the latest developments in their respective industries as well as any concern that may have systemic repercussions.</p>
CONSUMER FINANCIAL LITERACY	<p>In 2006, the BSP created a Consumer Affairs Unit (now called the Financial Consumer Protection Department). Its primary function is to ensure protection of financial consumers' rights and facilitate the development and enforcement of a client-focused and responsible banking industry by empowering the public to make informed decisions through personal financial education, among others.</p>

<p>EMERGING MODELS AND TECHNOLOGY</p>	<p>The BSP, as the regulator, allows flexibility in terms of regulating non-traditional banking technology like the use of e-money in mobile banking back in 2004. To provide an enabling environment for innovations to thrive, the following areas have been considered:</p> <ul style="list-style-type: none"> > Regulatory framework - Adoption of a regulatory regime that is flexible yet cautious, thus allowing innovations to flourish within safe and sound manner. > Capacity Building -Building the capacity of regulators/supervisors to ensure that they not only have the capability to conduct supervision and examination, but also to look into the complexities and intricacies of technology and its related innovative products and services > Distribution network - Most often than not, the success of a financial product/service (ex. mobile money) relies a lot on the ubiquity of distribution points or points of interaction (ex. cash-in/cash-out agents). It is best that a non-regulated/ supervised entity be allowed to partner with a supervised entity (provided they have passed appropriate accreditation and selection process) to gain indirect supervision over the non-bank or non-supervised entity. > AML Compliance - The new product/technology should not be used as a vehicle for facilitating money laundering, terrorist financing and other unlawful activities. Thus, AML compliance is always a balancing act on the part of the regulator. > Consumer protection - There should be clear consumer protection program that addresses transparent product pricing, readily available terms and conditions and clear redress mechanisms.
<p>INDUSTRY CONSULTATION</p>	<p>In 2015, the BSP initiated the formation of technical working group (TWG) as venue to convene payment industry players and discuss matters in the process of forming a payment system management body (PSMB) and other relevant matters with respect to the NRPS.</p>

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