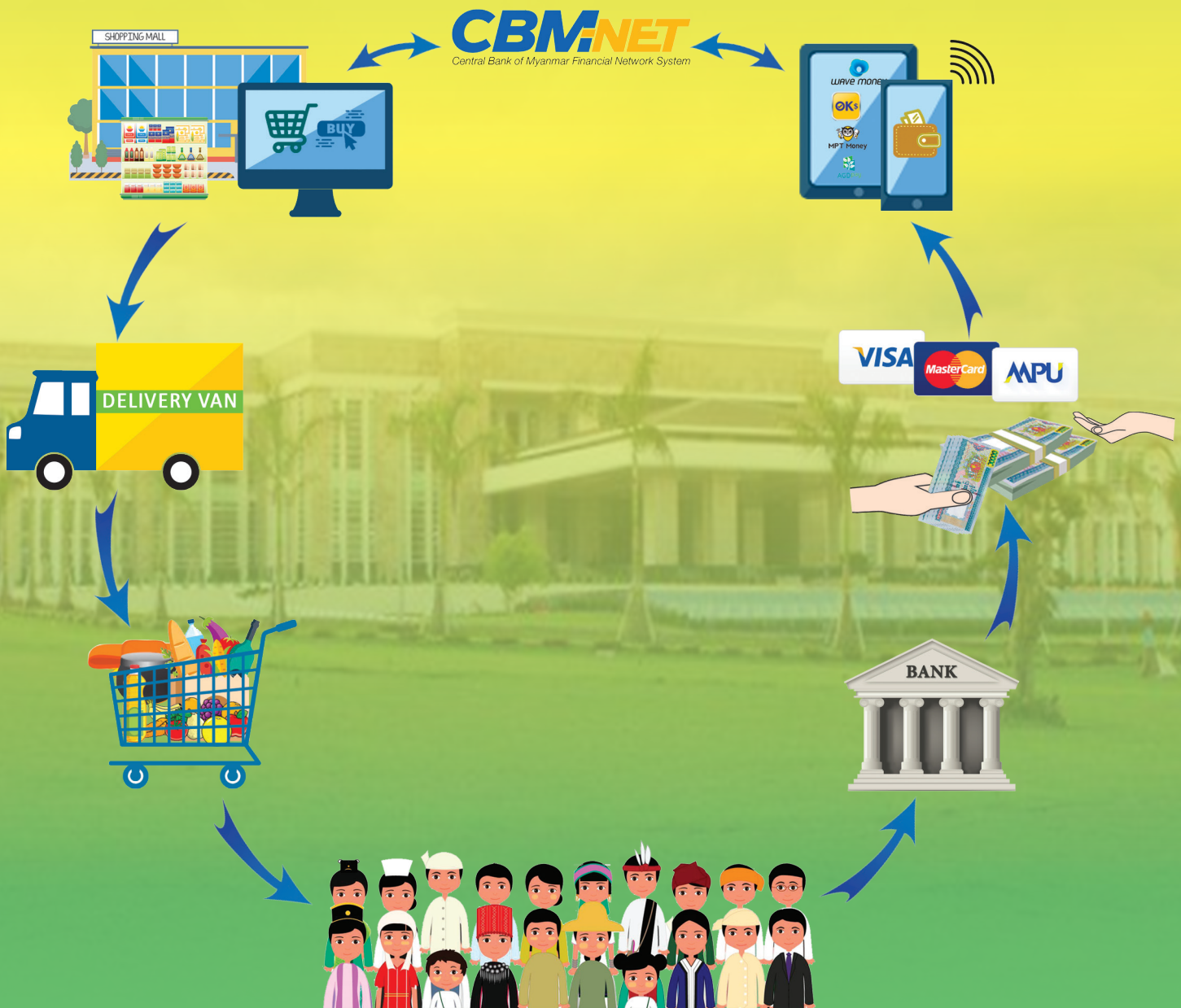


Myanmar National Payments System Strategy (2020-2025)



THE WORLD BANK
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Myanmar

National Payments System Strategy

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FOREWORD



I am grateful to the Central Bank of Myanmar for having taken this important initiative and developed the National Payments System Strategy. The Strategy will underpin several other initiatives of the Government.

The Strategy is aligned with Government development roadmaps, such as Myanmar Sustainable Development Plan 2018-2030 (MSDP) and the Financial Sector Development Strategy 2015-2020 (FSDS). Furthermore, the reforms presented in the Strategy support digitalization of payment services and adoption of FinTech solutions, therefore contributing to the Digital Myanmar Project and e-Government Master Plan.

The third goal of the MSDP is to stay “focused on the creation of quality jobs, together with the expansion of the private sector as the engine of environmentally conscious and socially responsible economic growth”. Under this Goal, the Government is committed to the promotion of creativity and innovation in the spirit of preparing for the transition to a digital economy. An inclusive digital economy will generate high quality jobs and induce structural transformation for the benefits of all. The Government must also keep the pace of this transformation and increasingly digitalize its processes, including payments, and provide government services online.

Establishing modern payment systems and dissemination of digital payment instruments and services are prerequisites for emergence of a digital economy. A broad range of reforms is also necessary. The Strategy will guide such reforms, leading Myanmar to establishing a modern and inclusive national payments market.

The National Payments System Governing Committee will continue to cooperate with Central Bank of Myanmar, and commit the necessary resources, in the development of Myanmar National Payments System Strategy.

U Soe Win
Union Minister
Ministry of Planning, Finance and Industry

FOREWORD

The Myanmar National Payments System Strategy is the expression of our payment system development vision – a vision for a society where government, individuals and businesses exchange payments through electronic means in a safe, efficient and cost effective manner through a wide range of payment instruments and payment services. The way people, businesses, and the Government make payments is beginning to change in Myanmar. Developing a safe and efficient National Payments System (NPS) is critical for the development of the financial sector and for economic development in Myanmar. The demand for safe, efficient, and affordable payment instruments has been growing at a rapid pace. Innovation in technology and business models and the entrance of new players are responding to this evolving demand.



Accordingly, the Central Bank of Myanmar undertook a comprehensive review of the national payments landscape and, in consultation with the Government and private sector stakeholders, articulated a Strategy for the development of the National Payments System. The National Payments System Strategy takes into account the specifics of the financial sector in Myanmar and regional integration initiatives.

The transition to a digital economy, which is one of the strategic goals of the Government, must be underpinned by modern payment systems and availability of digital payment instruments and services, which require a broad range of reforms. Together with the National Payments System Governing Committee, the Central Bank of Myanmar plays a leading role in coordinating with the relevant authorities in the implementation of the proposed actions and monitoring of the progress.

The main policies pursued by the Central Bank of Myanmar and the Government are to ensure the safety, stability, efficiency and competitiveness of payment and settlement systems, to promote non-cash payments and interoperability, to improve access to payment services, to promote financial inclusion, and to support the development of financial markets and the real economy in the country.

Technical support of the World Bank is warmly welcomed in the preparation of the Strategy. Myanmar National Payments System Strategy is structured around three key strategic areas: (i) Modernizing the payment and settlement infrastructure; (ii) Strengthening institutions; and (iii) Enhancing payment instruments and services. Under each strategic component, (18) specific objectives and the respective actions to achieve each objective are defined. The Central Bank of Myanmar is committed to playing its role in leading Myanmar towards making this ambitious vision a reality in the years to come.

U Kyaw Kyaw Maung
Governor
Central Bank of Myanmar

List of Abbreviations

ACH	Automated Clearing House
ASEAN	Association of Southeast Asian Nations
AML/CFT	Anti-Money Laundering/Combating Financing of Terrorism
ATM	Automated Teller Machine
ATS	Automated Transfer System
BCP	Business Continuity Plan
CBM	Central Bank of Myanmar
CBM-NET	CBM Financial Network System
CBS	Core Banking System
CPMI	Committee on Payments and Market Infrastructures
CPSS	Committee on Payment and Settlement Systems
CSD	Central Securities Depository
DEDC	Digital Economy Development Committee
DNS	Deferred Net Settlement
DR	Disaster Recovery
DvP	Delivery versus Payment
DVPC	DvP settlement and collateralization module of CBM-NET
FI Law	Financial Institutions Law
FMI	Financial Market Infrastructure
FP	Faster Payments
ILF	Intraday Liquidity Facility
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
JICA	Japan International Cooperation Agency
KYC	Know Your Customer
MFI	Microfinance Institution
MMK	Myanmar Kyat
MMQR	Standardized common QR code in Myanmar
MoPFI	Ministry of Planning, Finance and Industry
MPU	Myanmar Payment Union
MoU	Memorandum of Understanding
MTO	Money Transfer Operator
NGO	Non-Governmental Organizations
NPSF	National Payments System Forum
PFMI	Principles for Financial Market Infrastructures
POS	Point of Sale terminal
PSPs	Payment Service Providers
PvP	Payment versus Payment
QR code	Quick Response code
RMU	Risk Management Unit
RSP	Remittance Service Provider
RTGS	Real Time Gross Settlement
RTRP	Real Time Retail Payments
SECM	Securities & Exchange Commission of Myanmar
SIPS	Systematically Important Payment System
SSS	Securities Settlement System
UNCDF	United Nations Capital Development Fund
WB	World Bank
WBG	World Bank Group

1 Executive Summary

During the recent years, Myanmar has undertaken significant reforms in the financial sector in its transition to a market-based economy. The Central Bank of Myanmar (CBM) has gained greater autonomy under the Central Bank of Myanmar Law and the commercial banking sector has been developing rapidly. The Financial Institutions Law (2016) has opened the market to non-bank payment service providers. Financial sector reforms have rapidly changed the way people, businesses and the government makes payments and the demand for efficient payments with modern payment instruments has been increasing.

Developing a safe and efficient National Payments System (NPS) is critical for the development of the financial sector and for economic development in Myanmar. The financial market infrastructure is the underlying foundation of a country's financial system through which money circulates in the economy. Efficient payment and securities settlement systems facilitate the discharge of financial obligations and the safe transfer of funds across institutions, individuals, and businesses. With the rapid growth of the Myanmar economy and the financial sector, the importance of the CBM and the Government as the regulator and the overseer of the payment and settlement systems continue to increase.

The CBM and the Government of Myanmar have been playing a key role in modernizing the NPS. The CBM and the Myanmar Government appreciate the importance of the payment and settlement infrastructures for the smooth circulation of money in the economy, for the development of the financial markets and commercial activities. The following are the main achievements fostering the development of the NPS:

- The Financial Institutions Law, 2016 has introduced some important elements of a modern legal basis supporting payments, payment systems and instruments, including innovative payment instruments, and has opened payment services to non-bank financial institutions. The Financial Institutions Law also has strengthened the CBM role and responsibilities to oversee the national payments systems.
- The CBM is developing payment systems, alongside with regulations and its payment oversight function in order to respond to the needs of the fast-changing payment industry and the economy as a whole.
- The CBM (i) is operating an interbank payment system for large-value payments called CBM Financial Network System (CBM-NET); (ii) is supporting the banking industry in developing interoperable infrastructure for card payments; and (iii) is promoting the adoption of innovative payment instruments and services.
- Two inter-ministerial committees have been established to lead efforts for adoption of new technology and modernization of payments in Myanmar. The Digital Economy Development Committee (DEDC), chaired by the MoPFI and overseen by the Vice President of the country, coordinates and leads Digital Myanmar project. The National Payment Governing Committee, chaired by the MoPFI, is the coordination committee for promoting payment system reforms.

Despite the efforts of the CBM and the government, the financial market infrastructures in Myanmar lag behind its peer countries in the region. The usage of electronic payments remains nascent in Myanmar. In addition, the rapidly changing payment landscape worldwide, driven mainly by technological innovations, has resulted in the introduction of new payment instruments, payment channels and services, in particular in retail payments. These international trends have been witnessed in Myanmar as well and have given rise to new challenges for providers of payment services and regulatory authorities and need to be addressed in a timely manner.

The analyses of the current status of the NPS has identified the following areas for improvement:

- *Legal reforms related to payments and settlement have not been completed.* The Financial Institutions Law, 2016, has introduced some provisions on payment services and payment and settlement systems aiming at improving the legal protection, clarity of rights and responsibilities of payment service providers and operators and protection of customers. While this is the first step in removing gaps in the legal and regulatory framework, implementing regulations needs to be completed. Further efforts are needed to remove potential barriers for the adoption of new payment systems and electronic payment instruments. Removing restrictions for foreign-owned entities offering payment services, both banks and non-banks, will foster competition for the benefit of customers and real economy. In a medium to longer term, the CBM should reassess the need to introduce a Payment Systems law to address in a comprehensive way all aspects related to payments.
- *The existing interbank system for large-value payments (CBM-NET) still needs some key features that would enable cost reduction for participants and high speed of settlement.* Although the system is automated, there are manual and paper-based procedures involved in the processes that cause delays, higher costs of settlement and give rise to operational risk. The system has limited capacity to meet the needs for fast, secure and efficient wholesale payments, to support the safe settlement of retail payment systems and the development of interbank money markets and capital markets. The initiated payment system upgrade needs to be completed in a timely manner.
- *Payment services and instruments in the retail payments area have not been sufficiently diversified.* Individuals and small and medium-size businesses lack efficient and convenient payment instrument and payment methods. An interbank infrastructure for electronic payment instruments, such as Automated Clearing House (ACH) for credit transfer and direct debits that would serve payments of the government, businesses and individuals is missing. Because of this, most electronic transactions are intrabank transactions (conducted within the same bank). It is a common practice in Myanmar for individual and businesses to open and maintain accounts in several commercial banks to be able to make or receive payments. Recently, the CBM has introduced interbank customers' payments via the CBM-NET. The service has been designed for payment of taxes by business entities. The volumes, however, are still very small.
- *Cash remains the main payment instrument for individuals and businesses and for some government payments, incurring significant costs for the CBM, banks, merchants and the government.* Among cashless payments, cheques dominate G2B payments. The CBM cheque clearing center processes about one half million cheques per year. Other government payments, such as G2P, P2G and B2G are predominantly in cash. Individuals and small businesses increasingly use payment cards. However, the share of payments with cards is still very small, one of the reasons being frequent operational disruptions in the card infrastructure. Myanmar lags behind other countries in the region, such as Vietnam, Thailand and Singapore in terms of number of payment cards per capita. Moreover, the access point and acceptance infrastructure (ATM and POS terminals) is scarce. Electronic funds transfers have a very low usage in Myanmar.
- *Innovative payment instruments, such as e-money, and digital payment services are gaining popularity* among the urban population mostly due to the dramatic increase in mobile phone penetration (SIM card penetration has reached 105 percent in 2017; 80 percent of SIM cards are attached to a smart phone) and Internet penetration. However, the penetration in rural areas remains lower. Moreover, the elderly population in these areas hardly uses the phone for anything more than making a phone call.

- *Banks are the major providers of payment services in Myanmar. Some of the commercial banks, however, lack automated internal systems to handle customers' payments in an efficient way.* The banking sector is still dominated by the state-owned banks in term of number of branches and customers base. These banks, as well as some of the private banks, have not yet modernized their internal information systems and largely rely on manual and paper based processing of payments. The largest state-owned bank (MEB) has recently initiated a project for modernization of its internal system. The modernization is supported by the World Bank (WB) and is a key step to enable migration of payments, including government payments, to electronic means.
- *A significant part of the population is unbanked.* According to the World Bank Global Findex, only 26 percent of adults (age 18+) have a transaction account, compared to a regional average of 70.6 percent and a lower middle-income countries average of 57.8 percent.¹ Of these accounts, 10 percent have not been used over the previous year and as such are to be considered inactive. Lack of access to a basic account leads to lack of access to electronic payment instruments and services and to heavy reliance on cash for making payments.
- *Non-bank payment service providers have been increasingly competing with banks in the payment space, in particular for P2P and P2B payments, leading to new challenges and opportunities.* The CBM has issued permission to several non-banks for e-money services under the Financial Institutions law (2016). Volume and value of such digital payments have rapidly grown during the last 2 years, however their share in retail payments remains low. Moreover, e-money schemes are not interoperable. On the other hand, some banks have been slow in adopting new technology and FinTech solutions for efficient and inclusive payments.
- Other factors hampering the broader adoption of electronic payments and consequently broader financial inclusion in Myanmar, in particular in rural areas, are the *low level of financial literacy among the population, limited internet access in rural areas, and lack of trust in financial institutions.*
- *The Government has committed to move Government payments to electronic payment instruments* and several initiatives have been undertaken in this direction. In addition to completion of the MEB automation project, further coordinated steps are needed to migrate government spending and the collection of revenue payments to electronic payments.
- *Regional economic integration (ASEAN economic cooperation agenda) brings additional requirements for the National Payments System* in terms of standardization, interconnection between the domestic systems and other systems in the region, interoperability, and security standards.
- *The CBM needs to build its capacity to effectively oversee the NPS.* The staff of the payment system oversight unit has limited experience with implementing international standards and good practices in payment systems and services. Technological innovations, emergence of new payment instruments and the entrance of non-bank institutions into the provision of payments services bring complexity and additional challenges for the implementation of payment oversight. The oversight framework is currently being developed.
- *Coordination among the authorities and cooperation with the private sector is key in reforming payment systems, services and instruments and needs to be improved.* Although the CBM and the Government have initiated several working groups on specific topics with

¹ See the World Bank Global Findex database: <https://globalfindex.worldbank.org/>

the involvement of the private sector, there is no forum for discussion and cooperation among all stakeholders in the NPS.

The Strategy for the development of the National Payments System (NPS) has been designed to guide the establishment of a modern and inclusive national payments market in Myanmar over the period (2020-2025) (hereinafter *NPS Development Strategy or the Strategy*). It provides a vision for a society where government, individuals and businesses exchange payments through electronic means in a safe and efficient manner through a wide range of payment instruments. It contains high-level strategic guidance on the way forward. The main policies pursued by the CBM and the Government of Myanmar are to ensure the safety, stability, efficiency and competitiveness of payment and settlement systems, to promote non-cash payments and interoperability, to improve access to payment services, to promote financial inclusion, and to support the development of financial markets and the real economy in the country. There is a strong political will to undertake the necessary reforms to modernize payment systems and services in Myanmar in line with international trends and commonly accepted standards. Payment sector participants understand the need for a strategic review and a plan for developing the NPS in the country and a commitment for strong involvement in the reforms.

The NPS Strategy (2020-2025) builds on the previous achievements and initiated reforms and is aligned with Government of Myanmar strategic objectives for financial sector and social development. The NPS Strategy has been aligned with the Myanmar Sustainable Development Plan (2018-2030) of the Government of the Union of Myanmar (MNDP) and has considered the Financial Sector Development Strategy (2015-2020) (FSDS) of the Government and the Myanmar Financial Inclusion Roadmap (2015-2020).^{2,3,4} These documents acknowledge the importance of the expansion of electronic payment systems and payment system reforms for developing the financial system in Myanmar and enhancing financial inclusion. The reforms presented in the NPS Strategy support digitalization of payment services and adoption of FinTech solutions, therefore contributing to the Digital Myanmar Project and e-Government Master Plan.^{5,6} The NPS Strategy takes into account the specifics of the financial sector in Myanmar and regional integration initiatives.⁷ Prevailing international trends, international standards and best practices have been studied and incorporated in the strategy. The Strategy has been developed with support of the World Bank.⁸

A holistic approach has been taken in developing the Myanmar NPS strategy (2020-2025), taking into account the nine pillars of NPS development: (i) Strengthening the legal and regulatory framework; (ii) Enhancing the safety and resilience of systems for large-value (high-value) and time-critical payment; (iii) Expanding the use of electronic payments and innovative payment instruments to meet the needs of the users and to promote financial inclusion while improving risk management features of retail payment systems; (iv) Migrating all government payments to cashless payment instruments; (v) Developing the infrastructure for foreign exchange and interbank money markets; (vi) Enhancing securities clearing and settlement systems and central securities depositories; (vii) Reducing cost and increasing efficiency in international remittance services; (viii) Implementing effective oversight of the NPS; and (ix) Strengthening the domestic and international cooperation in the area of payments.

² The Myanmar Sustainable Development Strategy was published in August 2018.

³ Financial Sector Development Strategy, 2015-2020 has been developed with WBG support.

⁴ See The Myanmar Financial Inclusion Roadmap 2015-2020, Making Access Possible (MAP) report, UNCDF, 2014

⁵ Digital Myanmar is a project of the Government of Myanmar and is supported by the World Bank.

⁶ E-Government Master plan has been developed with support from the Asian Development Bank.

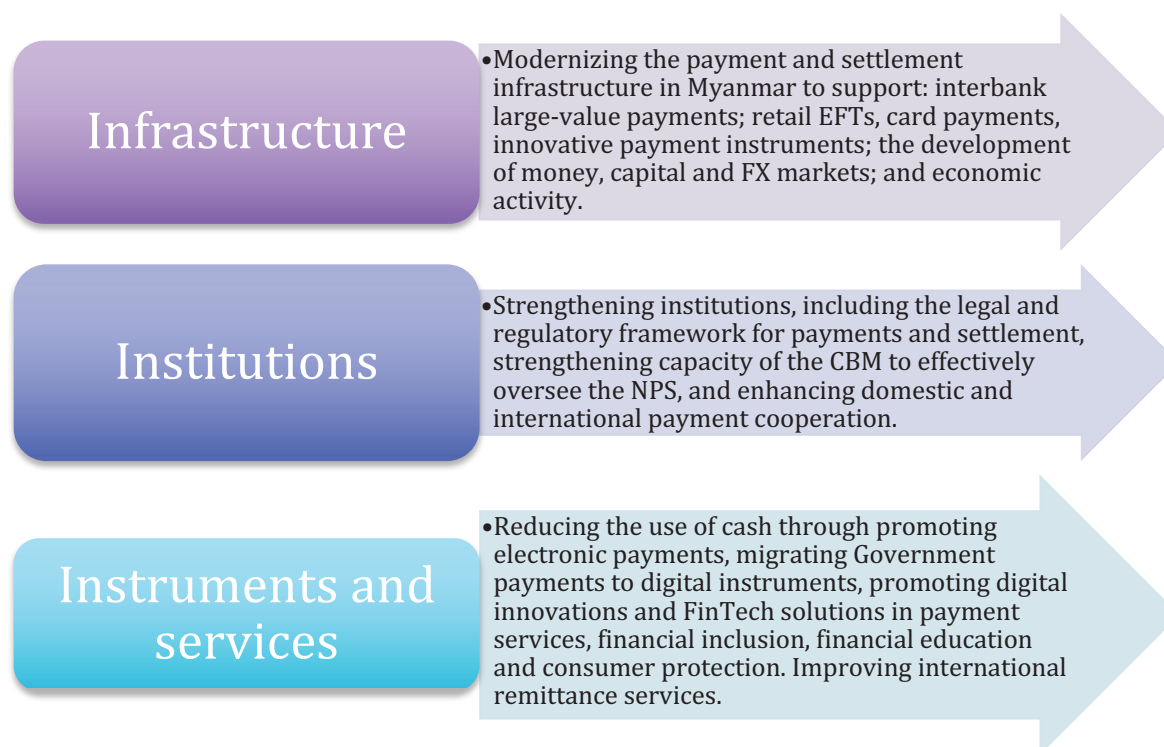
⁷ In particular, AEC 2025 Strategic Action Plans for Financial Integration, discussions on ASEAN Digital Integration Framework Action Plan (DIFAP) (2020-2025), and related policies have been taken into account.

⁸ The World Bank provides technical assistance to CBM to develop its payment systems and payment oversight as part of the Myanmar Financial Sector Development Project.

Based on these elements of the payment ecosystem, the Myanmar NPS Strategy focus on the following key strategic areas: (i) Modernizing the payment and settlement infrastructure; (ii) Strengthening institutions; and (iii) Enhancing payment instruments and services.

The inputs into the Myanmar NPS Strategy (2020-2025) are summarized in Figure 1. The graph is organized around the three key strategic areas, as described above. The proposed strategies and activities derive from the detailed analysis and identified gaps in the status of the Myanmar NPS. The contents of this document have been discussed and reviewed in various fora as part of the process of obtaining acceptance and ownership by the relevant stakeholders, including discussions with the MoPFI, SECM, banks and other payment service providers in Myanmar.

Figure 1 Summary of the Key Strategic Areas



The NPS Development strategy will be implemented in three phases. In the short term (the next 1-2 years) the CBM and the banks will modernize the core infrastructure, such as CBM-NET for large-value payments, implement a Real Time Retail Payments system, establish an ACH for direct debits and credits and bulk retail payments, and implement a standardized QR codes for payments. In parallel, the CBM will adopt necessary legislation for payment service providers and payment instruments under the FI Law. International standards and good practices in managing financial and operational risk, including cyber security risk in payment systems, and access policies will be studied and adopted. Implementation of the MEB core banking system will be initiated. The CBM will collaborate with ministries and other government agencies, as well as with the private sectors, to promote programs based on innovations for improving access to payment services, digitalization of government payments and broader financial inclusion. This will be supported by broad national awareness and financial education programs. A National Payments System Forum comprising of all stakeholders in the NPS will be established to ensure a continuous policy dialogue with all relevant stakeholders in the payments service market.

In the medium term (the next 3-4 years), the reforms in government payments, such as tax collection, distribution of government employee salaries and social benefits will be implemented. The CBM will complete the legal reforms. All banks will automate their internal systems to improve payment services for consumers and businesses. The CBM will implement comprehensive capacity building program for payments oversight. The public and the private sector in cooperation will continue implementing

initiatives for increasing customer awareness and financial literacy on electronic payment instruments and services. The CBM will further enhance its Oversight Framework and adopt standards for the overseen systems. In line with the development of the financial markets in Myanmar, the CBM will enhance the infrastructure supporting money, capital and FX markets. Digital payment services will be adopted in a larger scale.

In the long term (in 5-6 years), most government payments will migrate to digital form. Volume and value in the core systems will substantially increase. Large part of the population and businesses will have access to payment services and will use digital payments. Reforms in clearing and settlement systems supporting financial markets will be completed. The CBM will implement policies to expand the range of entities providing payment services. As a catalyst for change, the CBM will continue promoting measures to facilitate a more rapid evolution and development of the payments market.

The rest of the document is organized as follows: Chapter II describes the methodology used in developing the NPS Strategy. Chapter III defines the goals and objectives of the NPS Strategy, high-level desirable features of the NPS development in the next 5-6 years, the main principles on which the strategy has been built, and factors that contribute to the successful implementation of the Strategy. The strategic initiatives are presented in Chapter III.4 and Chapter III.5 describes activities in the implementation stage. Annex A contains a detailed Implementation plan. Annex B lists the strategies. Annex D provides a list of intermediate indicators for measuring progress. The rest of the annexes include the main international standards for payment and settlement systems and remittances.

2 Methodology for Developing the NPS Strategy

1. The National Payments System (NPS) is a core component of the broader financial system. This is the infrastructure that provides the economy with the channels for processing payments across institutions, individuals and businesses on a daily basis. Well-designed payment and settlement systems can contain risks, protect users and contribute to limiting the impact of financial shocks. Modern payment and settlement systems and arrangements have the potential for substantial cost reduction and for increasing the speed of making payments and discharging financial obligations, therefore, meeting the needs of the financial sector and the society and contributing to the overall economic development.

2. A National Payments System includes a country's entire matrix of institutional and infrastructure arrangements for initiating and processing payment and securities transactions.⁹The main elements of a modern NPS are the following:

- (i) Institutions providing payment accounts, instruments and services to consumers and businesses, as well as access to payment-related services, and offering various products to satisfy market needs. This includes banks, non-bank financial institutions and non-financial institutions;
- (ii) Organizations that operate payment, clearing and settlement systems (payment operators), including third party service providers;
- (iii) Laws, regulations and contractual agreements that define and govern the payment transfer process and the conduct of payment service markets;
- (iv) Payment instruments and arrangements, such as credit transfers, direct debits, payment cards and e-money instruments;
- (v) Technological infrastructure. These are infrastructures for: transacting and clearing payment instruments; processing and communicating payment information; transferring the funds between the paying and receiving institutions; electronic book-entry securities system(s) and central securities depositories to register and record changes in ownership of both private and government securities;
- (vi) Clearing and settlement rules and mechanisms; and
- (vii) The oversight framework, i.e. the framework to oversee the designated systems, arrangements, instruments and services by the authorities, including cooperative arrangements.

3. The elements of the NPS are interconnected and interdependent. Weaknesses in one of the elements of the NPS or delays in the implementation of reforms in one of the components, can cause delays and disrupt reforms in other components. Therefore, reforms of the NPS should be addressed in a holistic manner to take into account interdependencies and links between various systems and arrangements, their interoperability, as well as the supporting legal and regulatory framework and oversight capacity of the authorities.

⁹ See General Guidance for national payment system development, Committee on Payments and Market Infrastructures (CPMI), 2006.

4. The holistic approach to reforming the NPS is based on nine “key pillars”, which together fully cover all elements of the NPS. The key pillars are listed in Figure 2.

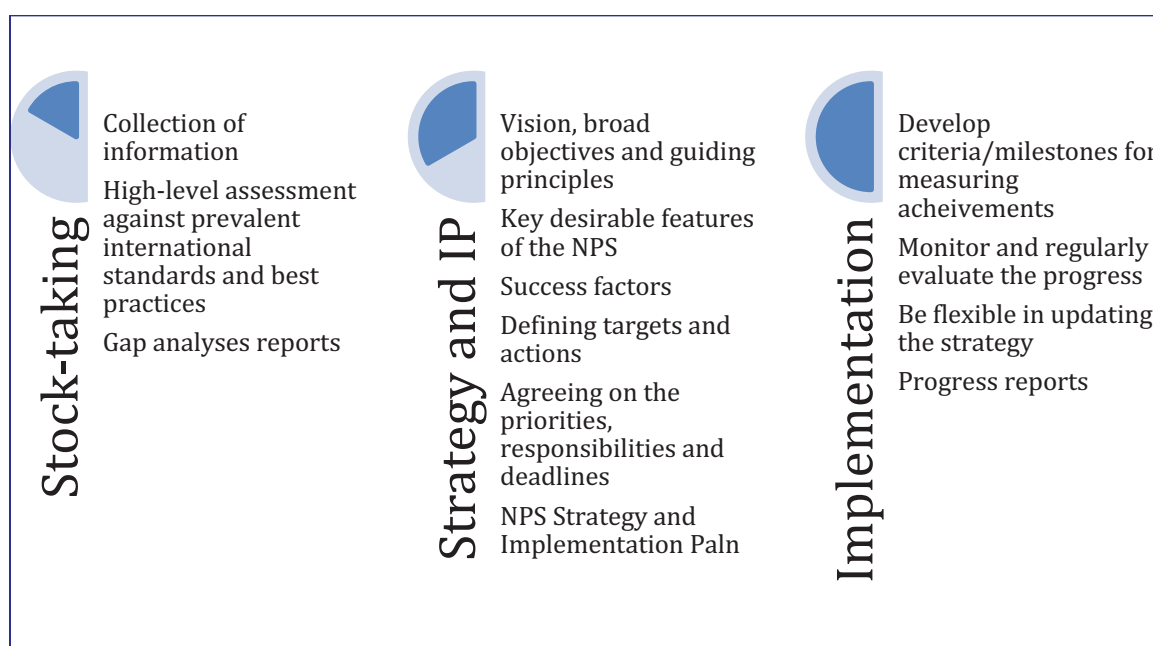
Figure 2 Pillars of the National Payments System



2.1 NPS reform process

5. There are three key steps in the NPS reform initiatives, often executed in iterations on an ongoing basis (see Figure 3): (i) Stock-taking; (ii) Developing a NPS Strategy and an implementation plan - setting up a prioritized list of activities to address the gaps identified in the stock-taking exercise and enlisting support of all stakeholders in the implementation of these activities; and (iii) Implementing the NPS development plan and monitoring progress.

Figure 3 NPS Strategy: the process



2.1.1 Step 1 – Stock-taking

6. The stocktaking exercise is the critical first step for the NPS development program. In this step, the information is collected and the status of the NPS is assessed against prevalent international standards and best practices. In the stocktaking exercise facilitated by the World Bank, consultations took place with the CBM, the Ministry of Planning, Finance and Industry (MoPFI), the Securities and Exchange Commission of Myanmar (SECM) and the Yangon Stock Exchange (YSX), as well as with banks, the Myanmar Banks Association (MBA), domestic and international payment card schemes and e-money issuers, which are providing payment services in Myanmar. International donors (JICA, UNCDF) were also consulted. Findings of the stocktaking were discussed at a joined CBM - World Bank consultative workshop with participation of public authorities and the private sector participants in the NPS, which took place in May 2019.

7. The international standards and guidance that have been used in drafting the NPS Strategy (2020-2025) are those issued by the Committee on Payments and Market Infrastructures (CPMI), in some cases in cooperation with the Technical Committee of the International Organization of Securities Commissions (IOSCO) or with the World Bank. The main international standards and guidance are provided in Annexes.

2.1.2 Step 2 – Developing a NPS Development Strategy and Implementation Plan

8. The development of a NPS Development Strategy and plan for reforms involves: (i) Establishing the strategic vision and broad objectives of the NPS; (ii) Identifying the key desirable features of the NPS and the guiding principles that would be used in designing the NPS; (iii) Identifying success factors; (iv) Developing targets and implementation actions; and (v) Agreeing on the priorities, responsibilities, and deadlines.

9. When planning reforms in the NPS, a broad range of factors should be considered. Sustainable development of the NPS requires that all major elements of the NPS are considered: market infrastructure, legal and regulatory framework, payment instruments, technologies, systems' design and complex interrelationship between payment infrastructure and institutional arrangements. Development initiatives should be focused on the emerging payment and settlement needs and capabilities of the economy and should be planned and prioritized strategically.

10. At this stage, complexity and interdependencies between various systems and markets have been identified and addressed by aligning their development. For example, there is a strong link between the system for settlement of high-value payments (the CBM-NET) and systems for safekeeping, clearing and settling transactions with securities that are used as collateral to support the need for liquid funds in the payment system. Furthermore, efficiency and safety of the settlement of retail payment systems depends on the large-value payment system to which they are connected: typically, retail payment systems settle multilateral net clearing positions in core large-value payment system in the country.

11. Moreover, a well-functioning NPS requires a delicate balance between market-driven competition, co-operation and public good considerations. Banks and other payment service providers should compete for payments business and customers while achieving the benefits and efficiencies that stem from the sharing of non-competitive infrastructures. In the national interest, it is imperative that economy of scale is achieved, and that the national payment service infrastructure is open to a broad range of participants offering payment services to the public.

12. The following Box 1 summarizes the CPMI Guidance for the planning stage of the NPS development strategy.¹⁰ A full list of the CPMI Guidance is provided in Annex C:

Box 1: Selected CPMI General Guidance for national payment system development

Guideline 3. Recognize complexity: planning should be based on a comprehensive understanding of all the core elements of the national payment system and the principal factors influencing its development.

Guideline 4. Focus on needs: identify, and be guided by, the payment needs of all users in the national payment system and by the capabilities of the economy.

Guideline 5. Set clear priorities: plan and prioritize development of the national payment system strategically.

Guideline 6. Implementation is key: ensure effective implementation of the strategic plan.

2.1.3 Step 3 – Implementation of the NPS development plan and monitoring progress

13. In this step the required organization arrangements, financial resources and monitoring arrangements are put in place and an implementation approach is chosen. As the implementation can be over multiple years and in phases, it is important to monitor and evaluate the progress. Identifying the criteria for measuring NPS performance is a key element of the implementation process.

¹⁰ See General Guidance for national payment system development, CPMI, 2006.

3 Myanmar NPS Development Strategy and Implementation Plan

3.1 Vision, Main Broad Objectives, and Targets

14. The vision of this NPS Development Strategy is:

To establish a safe, efficient and inclusive National Payments System that effectively contributes to the country's financial stability and economic growth

15. Safe and efficient systems for exchange of payments, clearing and settlement systems, a variety of payment instruments, and affordable and efficient payment services accessible to all, support the circulation of money in the economy, promote development of the financial markets and foster financial inclusion.

16. *The main broad objectives* pursued by the CBM and the Government are summarized in Figure 4.

Figure 4 Main Broad Objectives of the NPS Strategy

Increase the speed and safety of payment transactions for banks, government, businesses and individuals
Reduce costs of payments through reducing payment transactions in cash and through interoperability of systems and instruments
Migrate to a less-cash society by spreading the usage of efficient electronic payment instruments and fintech
Have payment and settlement systems that support the implementation of the monetary policy and financial markets development
Promote the use of the national currency in the economy
Have legislation and regulations that support competition, reduce barriers for providers of payment services, are forward looking, and promote technological innovations in payment services
Achieve broad access to payment services for the Myanmar population and facilitate broader financial inclusion
Reduce risks and increase safety of payments and settlement through implementing effective oversight of payment and securities settlement system, instruments and services.
Build technical capacity of the regulators and overseers of the NPS to enable effective oversight and timely respond to emerging risks in a rapidly changing payment environment
Strengthen cooperation between all stakeholders in the payment ecosystem to drive reforms

17. To measure achievements, the Strategy will use *indicators and technical targets*, which are listed below. By the end of 2025, the following will be achieved:

- achieve full automation of core systems for clearing and settlement of payment, securities and FX transactions;
- reduce ratios of cash to M2 to below 20 percent;
- increase the number of people aged 18 and above with a transaction account to at least 50 percent of the population;
- increase outreach of digital payment services in remote and rural areas through increasing access points (ATM/POS/mobile payments/mobile money or other agents);
- implement international standards for managing financial, operational, cyber and other risks in payment systems and services;

- achieve Payment versus Payment for foreign exchange transactions to reduce settlement risk;
- achieve interoperability across the existing and any new payment platforms/schemes and instruments;
- implement effective core banking solution in all commercial banks;

Additional factors/enablers:

- remove barriers for foreign entities in the payments market;
- implement a robust communication infrastructure;
- implement unique national identification mechanisms.

In addition, the CBM will develop a set of intermediate indicators/variables that would help to identify trends and support the evaluation of the main indicators. Such indicators will be measured regularly (every 3 or 6 months) and included in the monitoring reports. Possible indicators are listed in Annex D.

3.2 Main Principles

18. The Myanmar NPS development Strategy considers a range of agreed fundamental principles promoted by international standard setting bodies (See Box 2):¹¹

Box 2: Main principles for NPS Development

Main principles of NPS development

- Payment and settlement systems are designed to minimize potential risks, to increase efficiency and ensure interoperability. A balance is maintained between risk reduction and cost;
- Participants are liable for the risks that they introduce into the NPS;
- The central bank response to a problem in the NPS will be in the interest of the whole system and the society, not individual participants;
- The NPS makes optimum use of the available liquidity. Participants in payment and settlement systems maintain sufficient funds to complete payment and settlement obligations when due;
- Systems of systemic importance comply with the CPMI-IOSCO Principles for Financial Market Infrastructures;
- The provision of payment services is not the exclusive domain of banks;
- There is healthy competition amongst payment service providers, complemented with cooperation, which promotes cost-effectiveness, quality of services and innovation;
- There is a sound, predictable, non-discriminate and proportionate legal and regulatory framework for payments;
- There is transparency, fairness and consumer protection in payment services;
- The evolution of the NPS infrastructure is a co-operative responsibility;
- Adequate oversight is necessary to ensure the safety and soundness of the NPS.

¹¹ See: CPMI General Guidance for national payment system development, CPMI, 2006; CPMI-IOSCO PFMI, 2012; World Bank Guidelines for developing a comprehensive retail payment strategy; World Bank Guidelines for the Development of Government Payment Programs (2012); CPMI-WB General Principles for International Remittance Services, 2007; CPMI-WB report on Payment Aspects of Financial Inclusion (PAFI report), 2016.

3.3 Success Factors

19. **Effective cooperation** A vital issue in the successful implementation of the NPS Strategy relates to the understanding that, although the central bank and the Government play a leading role, the evolution of the NPS infrastructure is a co-operative responsibility of all stakeholders, including other regulators, participants in various systems, and banks and non-bank providers of payment and settlement services. A collaborative approach, with the active participation of all stakeholders, is essential because of the complexity of the required changes. A well-structured collaborative approach will create synergy, stimulate learning and provide a basis for optimizing benefits through co-operation and consensus building. The proposed National Payments System Forum (NPSF), as a consultation body on payment system matters, will be best positioned to accelerate progress when necessary, and to facilitate communication between public and private sector stakeholders.

20. **Business models, governance and risk responsibilities:** In implementing the Strategy, appropriate business models and a cost recovery structure will be developed for the new systems. Participants will have a clear understanding of the estimated cost of the reform and ongoing costs thereafter (software, hardware, staff, training, consultants, monitoring, support). An appropriate risk management framework will ensure that risks and costs in the payments market are identified and managed while maintaining a balance between risk reduction and associated costs. Sound governance arrangements for the existing and future payment systems will be put in place to support the safety and efficiency of the shared infrastructure. While supporting technological innovations in payments, new emerging risks will be carefully monitored, assessed and controlled.

21. **Clear ownership and responsibilities:** The successful implementation of the Strategy will require that specific roles and responsibilities be assigned to various stakeholders. The CBM will play a critical role in monitoring the progress and supporting cooperation and coordination among stakeholders for the implementation of the NPS Strategy, in its role as operator, regulator, overseer and catalyst of payment system reforms. The MoPFI and other ministries and government agencies holding regulatory responsibilities in areas that are relevant to the Strategy will also have an important role and responsibility. Payment service providers and payment system operators will support the NPSS implementation by committing to interoperability, managing risks, transparency, sound governance, and adopting strategic decisions of the NPSS. Forming implementation teams at the CBM, the Government and in other relevant stakeholders and allocating dedicated human resources for implementation is essential for the success of the reforms. Organizational structures, roles, responsibilities and relationships among various stakeholders will be agreed, developed and deployed for each of the strategic projects.

3.4 Strategic components, objectives, and key actions

22. The CBM has developed this NPS Strategy (2020-2025) to align the current payment arrangements with the envisaged features of the NPS and international standards and good practices. The NPS Strategy aims at risk and cost reduction, improved efficiency, shift to the usage of modern payment instruments and digital payments, financial inclusion, robust legal and regulatory framework and payment practices, and effective oversight of the NPS. All stakeholders, under the leadership of the CBM and the Government, will co-operatively implement the Strategy.

23. The NPS Strategy is structured around three key strategic components: (i) Modernizing the payment and settlement infrastructure in Myanmar to support the development of money and capital markets and economic activity; (ii) Strengthening the institutional framework for payments, clearing and settlement; (iii) Reducing the use of cash through promoting electronic payment instruments, promoting digital innovations in payment services, financial inclusion, financial education and consumer protection. Under each strategic component, specific objectives and the respective actions to achieve each objective are defined.

3.4.1 Modernizing the payment and settlement infrastructure in Myanmar

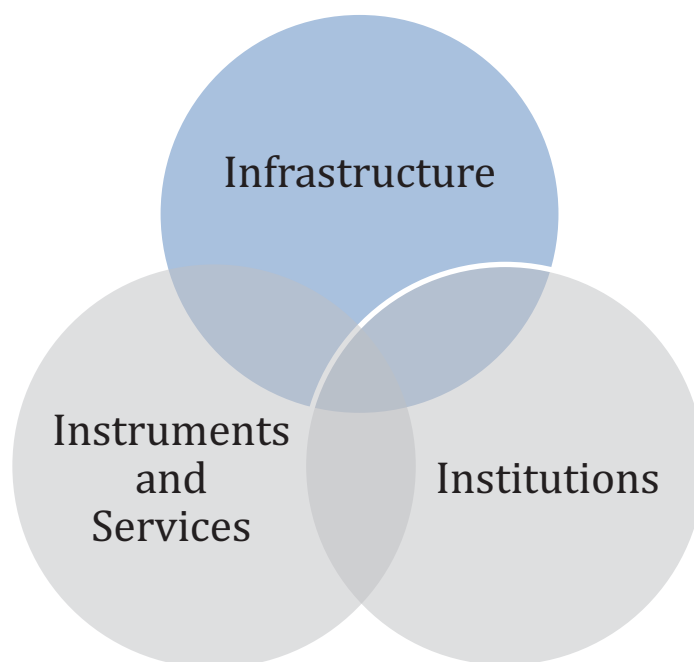
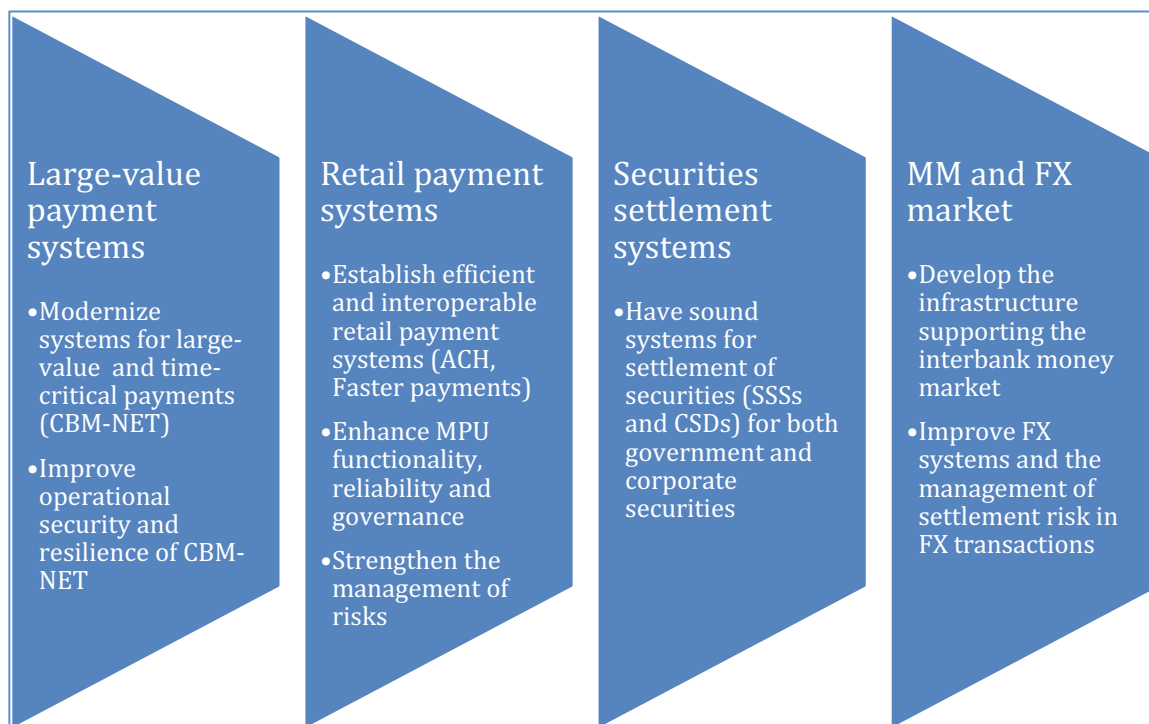


Figure 5 Key Strategic Component 1: Infrastructure



24. This component of the Myanmar NPS Strategy contains four areas: large-value payment systems; retail payment systems; securities settlement systems; and trading, clearing and settlement systems for money and FX markets transactions. Figure 6 presents main objectives.

3.4.1.1 Settlement of large-value and time-critical payments

CONTEXT

25. Payment systems for large value (wholesale) and time-critical payments are the core of the National Payments System. Payments between banks and other financial institutions originating from money and capital markets transactions are processed and settled through such systems. Payments between corporate entities as well as payments of individuals are also processed through large-value payment systems if payments are of significant value or are time critical. Such systems are defined as Systemically Important Payment Systems (SIPS) because, if not properly managed, they are able to generate and transmit disturbances of a systemic nature to the financial sector. On the contrary, well-designed and managed systems can reduce systemic risk and decrease costs of systemic disruptions for the economy.

26. In order to mitigate settlement risk in the interbank settlement process, countries around the world have implemented Real-Time Gross Settlement (RTGS) systems, which offer final settlement of individual funds transfers on a continuous basis during the processing day. In addition, RTGS systems can contribute to the reduction of settlement risk in securities and foreign exchange transactions by facilitating Delivery-Versus-Payment (DvP) and Payment-Versus-Payment (PvP) mechanisms.¹² Furthermore, RTGS systems can provide safe settlement for other systems, such as retail clearing systems that settle on a multilateral net basis.

27. Modern large-value payment systems offer a number of risk reduction and cost saving mechanisms. For example, many RTGS system have introduced liquidity saving features that reduce liquidity needs of participants in the settlement process, therefore reducing the cost of settlement. If a system is characterized by a deferred net settlement of payment transactions, risk control measures include the introduction of bilateral and multilateral limits, the implementation of loss-sharing agreements, reservation of funds and the pledging of collateral to cope with the inability of one or more participants to pay. To strengthen the risk management of systemically important payment and settlement systems, the CPMI and IOSCO have developed international standard - the CPMI-IOSCO Principles for Financial Market Infrastructures (PFMIs). See Annex E.

28. In several countries integrated RTGS-ACH systems have been introduced. Such integrated systems, called Automated Transfer System (ATS), provide a joint platform to operate the Real Time Gross Settlement (RTGS) system for large-value and time-critical payments and the Automated Clearing House (ACH) system for small-value payments. Integrated systems are cost-effective since the participants can use unified procedures to access both RTGS and ACH functionality. Such solutions are cost-effective from the maintenance point of view as well.

STATUS IN MYANMAR

29. The current infrastructure for large-value payments in Myanmar needs to be enhanced to meet the growing needs of the economy and interbank markets. Large-value payments in Myanmar are processed via CBM Financial Network System (CBM-NET), cheques or cash. CBM owns and operates CBM-NET, an interbank system for credit transfers and securities settlement. The system settles both funds and securities in real-time on a gross basis. CBM-NET includes also a Central Securities Depository (CSD) for Government securities and Delivery-versus-Payment (DvP) settlement. The system was implemented in 2016 and is a significant leap forward from paper and manual based processing of interbank payments. All banks in Myanmar are connected to the system for processing large-value and time critical payments. Government and corporates use cheques or paper-based payment orders (mostly for G2G and G2B payments). Cheques are processed through a MICR based cheque clearing system in the cheque clearing centers of the CBM operating in the three major cities in Myanmar. In locations where the system is not in place, cheques processing is manual and paper-based and

¹² See CPMI report on Delivery versus payment in securities settlement systems, 1992.

sometimes requires a week for the money to reach the payee. Distribution of cash related to payments with cheques is cumbersome and very expensive, in particular in remote areas.

30. CBM-NET involves manual operations. Currently, CBM-NET includes only the head offices of banks and the three branches of CBM. Banks maintain accounts in each of the three branches of CBM to process transactions and can move liquidity from one location to another. Although the system is automated, it does not offer Straight-Through-Processing (STP). Because of that, external systems have to be manually interfaced with CBM-NET, which is cumbersome and error-prone. Banks with a CBS upload files through CBM-NET workstations. Those without a CBS have to input transactions manually at CBM terminals.

31. Managing liquidity for interbank payments remains a major challenge for the CBM and the banks and is expensive. CBM-NET does not employ central queue and liquidity saving mechanisms to reduce the cost of liquidity. The Interbank lending and borrowing market is underdeveloped and banks maintain little liquidity at the CBM for payment purpose. The options for banks to fund their liquidity in CBM-NET are either to borrow from the CBM via the Intraday Liquidity Facility (ILF), to deposit cash at CBM or interbank borrowing. Often banks need to move physical cash from one location to another, which results in high transaction costs. As per commercial banks, the cost is about 0.2% of an average individual transaction in CBM-NET without insurance and 0.7% with insurance. High costs for banks result in high customer fees for transfers via CBM-NET, considerably higher than the fixed fee per transaction that CBM fixed fee charges the banks.

32. The existing system is not fully utilized by participants. The banks use the system mostly for interbank settlement such as borrowing/lending (secondary), customer credit transfer (CCT), primary market of government securities, for monitoring their accounts, for the settlement of net obligations arising in the cheque clearing and the MPU clearing. Recently, the CBM introduced Customers Credit Transfer (CCT) for processing bulk payments of banks' customers. The current RTGS CCTs are used for remittance, businesses use and tax payments. While the trust in the banking sector and customers' demand for interbank electronic payments is increasing, banks prefer to use correspondent banking arrangements instead of the existing interbank infrastructure due to the high costs and the manual processes involved. Taking into account the growing need for a safe and efficient transfer of large-value and retail payments, driven by the economic and financial sector development and economic integration processes within the region¹³, **the CBM has initiated an upgrade of CBM-NET**, an enhancement project supported by the Government of Japan. The World Bank Group has conducted gap analyses between the current system and expected functionalities of a modern RTGS system according to the CMI-IOSCO Principles for Financial Market Infrastructures (PFMIs) and has provided recommendations for improvements. In addition, the CBM has conducted a survey among banks about potential features of the new system. The proposal of JICA for upgrading the system has been approved by the Government of Myanmar and the CBM has signed the contract with JICA.

¹³ As part of ASEAN integration, Myanmar will be required to prepare its payment and settlement systems for linking with other systems in the region, including linking to the other countries' RTGS systems.

OBJECTIVES

OBJECTIVE # 1: HAVE A MODERN, SAFE AND EFFICIENT SYSTEM FOR LARGE-VALUE AND TIME CRITICAL PAYMENTS THAT COMPLIES WITH INTERNATIONAL STANDARDS AND GOOD PRACTICES

- Action I. The CBM will upgrade CBM-NET to a fully automated centralized interbank payment system with several components. Liquidity Saving Features (LSF) will support the RTGS functionality for large-value payments. The system will reduce settlement risk and improve liquidity management, efficiency and speed in large-value payments. It will offer a range of mechanisms for liquidity management and liquidity optimization, as well as STP processing. Box 3 presents the main features of the enhanced CBM-NET.
- Action II. To reduce settlement risk, the CBM will establish a mandatory threshold for payments to be made through the RTGS system. All payments above the established threshold and time-critical payments, including large-value payments that are currently made by cheques or processed manually at the central bank, will migrate to the RTGS system. This action will be coordinated with Government initiatives of reducing cash and cheques in government payments and migrating to electronic payment instruments.
- Action III.* The CBM will introduce a comprehensive Risk Management Framework for the RTGS system in line with international standards. The system will be assessed regularly for compliance with the CPMI-IOSCO PFMI as required by international standards.

Box 3: Functionalities of CBM-NET

Functionalities of the enhanced CBM-NET system

- The enhanced CBM-NET will be an integrated centralized interbank system with several components (RTGS, CSD and SSS) and will process a variety of payment instruments:
 - RTGS component for real-time settlement on a gross basis of large-value and time critical payments;
 - An Automated Clearing House (ACH) that will include a module for bulk retail payments (BRP) and a module for faster payments (FP)¹. The ACH will support both credit and debit transfers to meet wider needs of the customers including tax and custom payment as well as payment interoperability for mobile payment service providers. The ACH will offer a 24/7 exchange of messages. In addition, the ACH FP will allow immediate availability of funds in the payee account 24/7;
 - Securities Settlement System (SSS) and a Central Securities Depository (CSD) for government securities maintained at the CBM.
- The system will ensure Straight-Through-Processing (STP) through its STP gateway for linking CBM-NET with participants' CBSs. The system will accept messages in international standard ISO20022.
- Through its STP, CBM-NET will be able to link with trading and clearing systems for money market operations and FX transactions, thus supporting the clearing and settlement of financial market transactions and central bank open market operations. It will offer an interface for linking with other RTGS systems in the ASEAN+3 countries.
- The RTGS component of the CBM-NET will offer final settlement in central bank money for other systems in Myanmar, such as MPU (the payment card switch). The SSS/CSD of the Myanmar Stock Exchange (MSE) can also settle in the RTGS system. The interface with the CBM General Ledger will be automated.
- CBM-NET will support risk management mechanisms, such as net debit caps backed by collateral to ensure settlement of multilateral net positions arising from ACH BRP and ACH FP. There will be clear rules and procedures in case of a participant's default to settle its payment obligations. The operating hours of the system will be synchronized with the operating hours of money markets to allow participants to obtain liquidity when needed.
- The present system offers automated request and processing of CBM's intra-day liquidity facility (ILF) to the RTGS participants. In the upgraded system, liquidity to participants will be granted automatically based on the availability of eligible collateral. In addition, the system will introduce Liquidity Saving Features (LSF) by a bilateral and multilateral offsetting scheme.
- CBM-NET will provide simultaneous processing of DvP settlement and collateralization (DVPC) thus reducing settlement risk in securities transactions.²
- CBM-NET will provide enhanced on-line information to participants, allowing active management of queues and liquidity. The system will allow constant monitoring by the overseer and will generate reports for participants, the system administrator and the overseer.

¹ Faster payment is also called instant payment.

² Also called auto collateralization.

- Action IV. The CBM will adopt the international message standards ISO20022 in CBM-NET. This will enhance interoperability at national level, as well as future bilateral and multilateral links at regional level. As part of the ISO20022 implementation, the system will provide messages for communication with the net clearing systems that settle in the RTGS. The system will adopt other international standards (BICFI, ISIN).
- Action V. The CBM will issue clear and comprehensive Regulation/Rules of the system. Rules will be available to all participants.
- Action VI.* The CBM will engage in close consultation with participants of CBM-NET. A permanent User Group of CBM-NET participants, led by the CBM, will be established to support project implementation and to increase CBM transparency. The User Group will have representation of each participant at operation level, will meet regularly and discuss any issues related to the functioning and use of the system. When necessary, the CBM will conduct meetings with the higher management of the banks to discuss the project implementation.
- Action VII. The CBM and banks will work together to find solutions for reducing the cost of handling physical cash. Solutions include mechanizing cash counting and reduction in transportation cost.¹⁴ It is expected that the liquidity saving features of the upgraded CBM-NET will reduce cash usage for interbank transactions. The development of money and capital market in Myanmar will create opportunities and incentives for banks to better manage their liquidity.
- Action VIII. Cash management: Deposit/withdrawal of banknotes will be settled directly using the current account of banks in CBM-NET. The operations of Currency Chest Balance maintained by MEB will be connected through CBM-NET and Electronic Platform (Core Banking System).
- Action IX. The CBM will encourage the modernization of the Core Banking System (CBS) of the commercial banks. In order to fully benefit from the new features of the CBM-NET, and to be able to process customers payments in a fast and efficient way, commercial banks should implement modern automated CBSs covering their branch networks. The automated interface between the new CBM-NET and the core banking systems of commercial banks will be developed in a timely manner.
- Action X.* The CBM will foster the implementation of bank branch account codes referencing with IBAN to support the development of interbank electronic fund transfers. This will increase efficiency and reduce transactional errors in payments. The CBM has already initiated a discussion with commercial banks on standardization of bank branch and account codes.
- Action XI. The CBM will explore options to reduce customers' fees in CBM-NET and will explore options to reduce customers' fees to Zero Rate for tax payment. Reducing/waiving fees of beneficiary banks will be considered.
- Action XII. The CBM will assess the need to allow entities other than commercial banks (such as large MFIs and primary dealers in the securities market) to have direct access to CBM-NET for the purpose of settlement of funds. Careful consideration will be given to the potential risks. Access could be given on a need basis and only if such entities comply with the CBM requirements for risk

¹⁴A detailed report on Currency Management was submitted to CBM, under a WB technical assistance.

management, safety and security, including cyber security. Access policies will be aligned with the broader central bank policies related to access to central bank accounts.

- Action XIII. To enhance transparency in CBM operations, the central bank will publish monthly and quarterly statistics for RTGS operations.
- Action XIV. Large-value cheques will be abolished given the high cost and potential risks. This will be coordinated with the reforms in government payments. The remaining retail cheques will be cleared through the cheque clearing system operated by the CBM.

OBJECTIVE # 2: IMPROVE OPERATIONAL SECURITY AND RESILIENCE OF THE RTGS SYSTEM/CBM-NET

- Action I. The CBM will implement a comprehensive and well-documented framework for managing operational risk in CBM-NET in line with international standards (the PFMI). Elimination of manual steps in the settlement of large-value payments will reduce the risk of operational errors and delays.
- Action II. CBM-NET will have a well-developed Business Continuity Plan (BCP) and Disaster Recovery (DR) mechanisms for the RTGS system, including a full-fledged secondary/Disaster Recovery site with full data replication. The CBM will require that banks and other participants in CBM-NET have robust BCPs. The CBM will establish measurable objectives for resumption and recovery of the system following potential disruptive events in line with the CPMI-IOSCO PFMI.
- Action III. The CBM will conduct a detailed study of and will implement arrangement for controlling cyber security risk in CBM-NET in line with the CPMI-IOSCO Guidance on cyber resilience for financial market infrastructures.¹⁵ Risk management policies on cyber security will be developed in coordination with relevant strategies of government agencies and ministries (such as Ministry of Communications and Information Technology).
- Action IV. BCP arrangements and DR procedures will be tested regularly, including once a year with the involvement of all participants and linked systems.
- Action V. The CBM will develop and document a crises management and communication plan to include all relevant parties.
- Action VI. Staff of the CBM and the participating financial institution in charge of operations of the CBM-NET system will be properly trained.
- Action VII. The CBM will strengthen its ICT capacity by attracting highly qualified ICT experts.

¹⁵ The CPMI and IOSCO published Guidance on cyber resilience for financial market infrastructures (Cyber Guidance) in 2016.

3.4.1.2 Retail payment systems

CONTEXT

33. Retail payment systems process payments of small value and high volumes that are exchanged among individuals, businesses and Government. Such systems are an integral part of the NPS. While the RTGS system will serve the wholesale financial markets and CBM operations, retail payment systems provide the main channels for payment flows behind economic activity in the country. **Essential for the economy and the users is that retail payments are fast, accessible at low costs and safe.** Moreover, payment systems should process a wide range of payment instruments to support customers' needs in a market economy. This includes credit and direct debit electronic transfers and card payments, as well as innovative payment instruments such as e-money. A less than optimal supply of payment instruments may ultimately have an impact on economic development and growth.

34. **Systems for the clearing and settlement of retail payments should be safe and efficient, meet the users' needs and maintain the trust of people in the domestic currency.** Retail payment systems should meet high standards for safety and security and provide services that are efficient and affordable. Typical retail payment systems are Automated Clearing Houses (ACH) for electronic credit and debit instruments. A payment card switch is another example of retail payment systems which reduce costs for participants and users by providing centralized clearing. So-called Faster payment systems have recently gained popularity to respond to the growing demand for close to real-time retail payments. Such systems process payments 24/7 and allow the receiver to have almost immediate access to the received funds. Furthermore, retail payment systems increasingly provide functionalities for clearing of innovative payment instruments, such as internet and mobile payments, and for supporting e-commerce transactions. Broad adoption of QR code for initiating payments to merchants reduces costs and increases convenience for users. It is widely accepted that retail payment systems mostly settle in central bank money, through the respective RTGS systems, to eliminate the risk of failure of the settlement bank.

STATUS IN MYANMAR

35. **Retail payment systems in Myanmar are in an early stage of development.** The CBM-operated cheque clearing system processes retail cheques as well as large-value cheques. There is no interbank clearing system in place for electronic fund transfers (credit or direct debit transfers). The retail payment market is currently based on banks silos. Most electronic payments are between customers of the same bank. This results in duplication and fragmentation of the infrastructure and higher costs, which is ultimately transferred to the banks' customers. Individuals and businesses maintain accounts in several commercial banks (sometimes in 5-6 banks) to make or receive payments. As per banks, the ratio of intrabank versus interbank transactions is 50:1. In addition, more than half of the commercial banks do not have a centralized CBS. The recently introduced CCT (customers' payments via a credit transfer) in CBM-NET only partially addresses the existing gap in retail payment systems. The new CBM-NET is expected to offer clearing of a broader range of payment instruments for Government, corporate entities, small enterprises and individual customers.

36. **The mostly used interbank retail payment system in the country is the MPU payment card system.** MPU is a central switching service providing interoperability for all ATM, POS and e-commerce transactions with both domestic debit and credit cards. It offers an acquiring service for domestic POS/e-commerce transactions, operates the domestic payment card scheme and provides single point connectivity for domestic banks to some international card scheme (JCB and Union Pay). The system was established in 2012 by commercial banks in Myanmar. Currently, only banks are linked to MPU. The settlement takes place on T+1. After a period of frequent operational disruptions and other technical problems, the switch has recently stabilized. The volume and value of transactions cleared through the switch has been increasing. The number of POS transactions has grown multifold in the last two years from 12,391 in January 2016 to 182,105 in May 2018. ATM transactions reached 781,333 in May 2018. However, operational reliability remains a major concern. MPU has reported a 19% failure of

transactions at ATMs and 11% at POS terminals in May 2018. Since July 2017, the MPU settles in CBM-Net. Currently, e-money schemes are not linked to a centralized switch and clearing infrastructure and are not interoperable. MPU is upgrading the central switch for domestic debit cards with a new generation, scalable and functionally rich system. The new IST Switch went live in May 2018 and the migration of banks is taking place in several waves, depending on the level of their preparedness to connect. MPU governance structure and inefficiencies than can negatively impact the operations and the management of risks remain issues of concern identify by the CBM as overseer and not yet addressed to date.

37. The demand for a modern retail payment infrastructure is growing quickly in Myanmar. Domestic and foreign players are eager to deploy new technologies to facilitate electronic payments in Myanmar. It is generally envisaged that acceptance of electronic payments has the potential of growing substantially and at fast pace, especially thanks to asset-lite acquiring. Particular attention is given to Quick Response (QR) codes for payments, as these are having a high impact in spreading acceptance of electronic payments in several East Asian countries and several players in Myanmar are starting to develop their QR code-based payment products.

38. Payment service providers in Myanmar, with support from the CBM, have agreed to implement a standardized common Quick Response (QR) code, called MMQR. Technical specifications of the MMQR have been endorsed by local banks, international payment schemes, domestic e-money issuers, and the MPU. Implementation of the related QR switch and repository infrastructure is in the pipeline.

OBJECTIVE # 3: ESTABLISH EFFICIENT AND INTEROPERABLE RETAIL PAYMENT SYSTEMS OFFERING A WIDE RANGE OF PAYMENT INSTRUMENTS

- Action I. **Implement an integrated Real Time Retail Payments system.** The CBM will implement a Real Time Retail Payments system for the processing of retail payments in Myanmar. By implementing the RTRP system, the CBM intends to promote (i) interoperability, (ii) broader access; (iii) modernization of the payments system; (iv) integration with international payments; and (v) strengthened oversight. The RTRP will include the following modules: payments switch and faster payments, QR-code generation and repository. The RTRP will provide clearing for all transactions and settlement will take place in the RTGS module of CBM-Net.
- Action II. **Implement Myanmar Quick Response Code (MMQR).** The CBM will issue a regulation / guideline on the adoption of a standardized QR code in Myanmar. The code will build on EMVCo specifications and will be customized for Myanmar. The Implementation of MMQR will allow accepting payments by both domestic and international payment schemes, providers of e-wallets and banks. It will ensure interoperability among all banks and e-money issuers and improve the efficiency of payment processing. In parallel, all stakeholders will engage in an educational campaign for individuals and small businesses on the use and benefits of the QR code. The RTRP system will be host generation and repository functions for the MMQR and switch all QR code-initiated transactions in Myanmar.
- Action III. **Implementing an ACH.** A modern ACH for electronic transfers will be established as part of the new CBM-NET. The system will promote the shift towards a cashless society and improve services for the participating financial institutions. The ACH will clear direct credit and direct debit electronic transfers. Manual steps in the processing and clearing of electronic fund transfers will be eliminated. The system will be integrated with and will settle

in the RTGS component of CBN-NET. The ACH will comprise a module for Bulk Retail Payments (BRP). BRP will settle multilateral net position of participants twice a day.

- Action IV. **Encourage MPU to complete migration to the new system and establish sound governance and risk management.** The CBM will promote a complete migration of the MPU to the new system to ensure transactions are processed with increased security and reliability. At the same time, the CBM will encourage MPU and its shareholders to promptly address all issues of governance and risk management, to ensure that international best practices be followed.
- Action V. **Pricing policy.** The CBM will develop and enforce policies regarding the pricing of payment services to ensure that the retail payment systems in Myanmar do not use their position to establish unfairly high customer fees. The CBM policy will require price transparency from the systems operators and the payment service providers. Acquiring banks will be required to be transparent on the fees they charge to merchants, including by making this information available in a standardized form to the latter. The CBM will also collect data on fees on a regular basis. The CBM might introduce limits, if necessary, on the interchange fees, MDR or require de-bundling of merchant processing rates. The CBM will implement policies limiting fees for customers' payments processed through the ACH, including G2B and G2P payments, to promote the adoption of electronic payments by individuals, businesses and the Government.
- Action VI. **Settlement in central bank money.** The CBM will aim at achieving settlement in central bank money for all domestic retail payment systems, both operated by the CBM and operated by external parties, to reduce settlement risk.
- Action VII. **Core banking systems.** The CBM and the Government will promote the development, upgrade and improvement of internal payment procedures and core banking systems of participating institutions to ensure smooth connection and STP with the upgraded CBM-NET system, RTRP system, and MPU. Modern core banking systems will increase the speed and efficiency of processing payments and will make the use of electronic payment instruments attractive for businesses and individuals. It will foster innovative electronic payment instruments and channels, such as online banking and mobile banking and Internet and mobile payments. The CBM and the Government will work with state-owned banks, which have a large customer base and process Government payments. A project of modernization of internal systems of MEB is in progress, with Phase 1 scheduled for completion in 2019-2020 financial year. Implementing a CBS will play a vital role for the success of the ACH system.¹⁶The rest of the banks must have CBS by end 2020.
- Action VIII. **Access policy.** Currently only banks are direct participants in the interbank retail payment systems. Other entities providing services in the payment market, such as Microfinance Institutions (MFI) and issuers of e-money need to contract with banks to process their payments. The number of MFIs has been growing as of end of April 2019, there were 30 MFIs in Tier (1), 40 MFIs in Tier (2) and 111 MFIs in Tier (3). More than 20 of MFIs have a significant presence in the financial sector in terms of capital and payment volumes. It is expected that by 2019, MFIs will have more than 3 million active clients. In

¹⁶ The MEB modernization project is supported by the World Bank Group. Phase 1 includes 86 major MEB branches.

addition, the popularity of mobile payments has been growing and currently there are e-money schemes in the market, offering P2P payments and utility payments. The CBM will promote broader need-based access to retail payment infrastructure to include MFIs (Tier (1) and Tier (2)), e-money issuers and other perspective qualified participants. This will reduce costs, increase competition and improve efficiency of retail payments for the benefit of customers. In doing so, the CBM will assess possible options of direct and indirect access. The CBM will carefully consider potential risks that might be introduced to the systems. Non-banks will have to meet high technical and operational resilience requirements in order to be allowed to participate in the CBM operated systems.

- Action IX. **Standardization.** CBM will promote implementation of international communication and messaging standards. ISO 20022 will be adopted in CBM-NET. Other payment systems will be compatible with ISO20022 (CBM-operated systems) and ISO8583 (MPU).
- Action X. **Regional integration.** Payment systems in Myanmar will be developed taking into account the integration of regional payment platforms under the ASEAN economic integration framework.
- Action XI. **Transparency.** The CBM will collect information from retail payment systems on a regular basis and will publish monthly and quarterly statistics.
- Action XII. **Cheque clearing.** The promotion of electronic payment instruments and digitalization of government payments is likely to reduce the usage of cheques. The CBM will actively promote policies aimed at abolishing cheques for large-value payments in order to reduce the risk and utilize the upgraded CBM-NET. Electronic payment instruments that will be processed in the future. The RTRP system and the ACH, as well as innovative payment instruments such as e-money, will offer more convenient, safer and reliable fund transfers compared to cheques. However, in a short to medium term, cheques are likely to continue to be used for retail payments. It is the view of the CBM that customers should be given the possibility to choose among a variety of payment instruments, including cheques. In this regard, the CBM-NET upgrade envisages implementation of cheque imaging system, which will allow automation of cheque processing.

OBJECTIVE # 4: STRENGTHEN THE MANAGEMENT OF RISKS IN RETAIL PAYMENT SYSTEMS

- Action I. Rules, regulations and operational procedures of the retail payment systems (RTRP, ACH, MPU, cheque clearing system) will be reviewed and strengthened to reduce settlement risk. The systems will introduce features such as net debit caps, reservation of funds or guarantee funds and provision of timely information to participants.
- Action II. Business continuity plans (BCP) and Disaster Recovery (DR) arrangements for retail payment systems operated by the CBM will be developed in parallel with the CBM-NET upgrade. Arrangements will be tested on a regular basis, including once a year with system participants. A comprehensive crisis communication plan with all stakeholders will also be developed.

- Action III. MPU will establish a secondary site that complies with international standards for security. MPU will develop and regularly test BCP and DR arrangements and crises communication plan.
- Action IV. **Retail payment systems that are considered by the CBM as systemically important systems will comply with PFMI standards.** Other retail payment systems will comply with CBM developed oversight standards for robust risk management, including mandatory testing of BCP and DR site, security testing, audit and certifications.
- Action V. Cyber security and fraud detection standards will be introduced and regularly tested.
- Action VI. Information on operational disruptions, failures and delays will be reported to the CBM on a regular and ad-hoc basis. Policies on reporting of cyber-attacks will be developed.

3.4.1.3 Securities Depository, Clearing and Settlement Arrangements

CONTEXT

39. **Securities markets are of high importance for a country's financial sector.** Securities, mostly government securities and securities issued by central banks, are used extensively to implement monetary policy through open market operations. Sound and efficient FMIs for securities, such as Securities Settlement Systems (SSSs) and Central Securities Depositories (CSDs) are, therefore, an essential element for the efficient operations in the financial markets, for timely delivery of collateral for payments and other purposes and for regional integration.¹⁷ Moreover, there are interdependencies between securities settlement systems and payment systems. Each securities transaction requires settlement of two linked obligations - payment of funds by the buyer of securities and delivery of securities by the seller. Therefore, the development of the securities market is dependent on the efficient and reliable infrastructure for the transfer of funds.

40. The safe, reliable and predictable operation of FMIs for securities depends on a sound legal and regulatory framework and robust risk management mechanisms for minimizing credit, liquidity, custody, settlement and ϕ in the securities FMIs. Laws, rules, and procedures that support the holding, transfer, pledging, and lending of securities and related payments should be in place and should be transparent and enforceable. Among those, finality of both payments and securities' ownership transfer and legal protection of collateral are crucial factors in the development of a securities market, in particular in emerging markets if there is a desire to attract foreign investments. Robust risk management mechanisms include immobilization or dematerialization of securities, transfer of securities by book-entry, short settlement cycles, implementation of mod settlement, use of safe settlement assets for the fund settlement (preferably settlement in the central bank), collateralization of credit facilities, governance arrangements, access criteria, clear rules for managing a participant's default, margins, bilateral and multilateral credit limits and loss sharing arrangements, and clear rules and allocation of resources for recovery and resolution of securities clearing and settlement systems.

41. The legal and regulatory framework should provide clear allocation of responsibilities regarding the regulation, oversight and supervision of securities clearing and settlement infrastructure. The CPMI-IOSCO PFMI define responsibilities for the authorities to oversee, regulate and supervise systems for clearing and settlement of securities transactions. However, often, the oversight of such FMIs is performed as part of the general regulatory and supervisory function of the securities market regulator, without any special attention being given to the clearing and settlement arrangements. Therefore, it is

¹⁷ The CPMI-IOSCO PFMI defines the following infrastructures for securities operations as systemically important systems: SSSs, CSDs, and Central Counterparties (CCPs).

crucial that a clear legal and regulatory framework and mandate is provided to underpin the regular review of such clearing and settlement arrangements and their assessment for compliance with PFMI by the authorities. The securities regulator should have the power to issue guidelines that system operators should follow.

42. In this regard, cooperation between the securities regulator and the central bank as well as with other relevant authorities is important. Cooperation regarding oversight of CSDs and SSSs and the infrastructure for fund transfers relevant to securities transactions, including settlement banks, is crucial in achieving the regulators' respective policy goals, while respecting their legal mandates.

STATUS IN MYANMAR

43. The securities market infrastructure in Myanmar comprises of clearing and settlement arrangements for Government securities and for securities traded at the Yangon Stock Exchange (YSX). The market is small and in a very early stage of development. The Securities and Exchange Law was enacted in 2013, and the Securities and Exchange Commission of Myanmar (SECM) was established in 2014 chaired by the Deputy Minister of the MoPFI. In 2015, the Securities Exchange Rule was issued and YSX started operations. The SECM has the authority to license stock exchanges, Securities Companies (SCs) and to choose settlement banks. Currently, only 5 companies are listed and traded on the YSX through 6 SCs. YSX operates the trading platform, the SSS and the CSD for corporate securities. The trading, clearing and settlement systems have been developed with support from Japan Exchange group, which also has a capital stake in the stock exchange. Securities that are traded at the YSX are dematerialized and traded and deposited in book-entry. The settlement takes place on T+3 with DvP model 3 (net-net basis) through the CSD of the YSX and commercial settlement bank (KBZ).

44. **The MoPFI and the CBM organize auctions for issuance of Government securities with maturity of 3,6 and 12 months and 2,3,4 and 5 years.** As of end 2017, the total value of outstanding T-bills and T-bonds was MMK 15,721.317 billion and MMK 3,797.912, respectively. The highest demand is for short-term securities: 3-month T-Bills. The secondary market is underdeveloped. Government securities are issued and maintained in dematerialized form. Since 2015, the CBM maintains an automated register for T-bills and T-bonds. The current CBM-NET has a CSD function, which is integrated with the RTGS function. Banks and securities companies can participate in the primary market. The primary auctions are conducted through "Government Bond Auction" system, which is not connected to the CBM-NET. After the auction, the results are uploaded in the CBM-NET for settlement. Secondary market transactions among banks are negotiated bilaterally and registered by banks in CBM-NET. These transactions are settled on DVP basis. Banks applying for central bank credit facilities or for interbank repos should move securities from their securities account to a dedicated collateral account. The request can be initiated any time during the operating day of CBM-NET. Repayment of intraday credit is within CBM-NET operating time. None of the CSD/SSSs has been assessed so far for compliance with the PFMI. Securities companies can sell Government securities to investors in the OTC market; this market segment however is still in a very initial stage of development. Issues related to finality and protection of collateral are not fully addressed in the legal and regulatory framework.

OBJECTIVE # 5: HAVE SOUND SYSTEMS AND REGULATORY FRAMEWORK FOR SAFEKEEPING, CLEARING AND SETTLEMENT OF SECURITIES

Action I. A fully automated SSS and CSD for Government securities will be implemented as part of the upgraded CBM-NET. The system will offer simultaneous DVP and collateralization. The CBM trading platform for the primary and secondary market of Government securities will be integrated with the CBM-NET for allowing STP and avoiding any manual processing.

- Action II. The CBM will encourage banks to use the CBM secondary market platform for interbank trades with government securities.
- Action III. Rules and regulations for repo transactions and other operations involving securities, including provision of intraday liquidity in the CBM-NET, will be reviewed and enhanced to ensure that they are clear to participants and comprehensive and support the development of the money market.
- Action IV. The CBM will assess the SSS/CSD for Government securities against the PFMLs. Similar assessment will be conducted for the SSS/CSD operated by YSX.
- Action V. In the medium to long term, the SECM and CBM will consider the settlement of securities transactions traded at YSX in central bank money (in the upgraded CBM-NET system) on DVP basis, as a best international practice.
- Action VI. The CBM and SECM (MoPFI) will cooperate in promoting Government securities as an investment instrument for the population. This will require establishing convenient, efficient and safe arrangements for clearing and settlement. The CBM, SECM and YSX will explore options of leveraging the two SSS/CSDs for the book-keeping, clearing and settlement of transactions with government securities by individuals.
- Action VII. The legal and regulatory framework will be reviewed to ensure that all issues relevant to securities clearing and settlement are adequately addressed, including finality of settlement.

3.4.1.4 Trading, clearing and settlement systems for Money Market and FX market

CONTEXT

45. *Efficient mechanism for trading, clearing and settlement of money market and Foreign Exchange (FX) transactions is one of prerequisites for the development of these markets.¹⁸ A well-functioning money market provides transparency in interbank interest rates, allows for the improvement of the liquidity management and facilitates the monetary policy transmission mechanism. Important elements supporting the development of the interbank money market are automated trading platforms, efficient systems for the clearing and settlement of large value payments to provide secure electronic interbank funds transfers with immediate and final settlement (such as RTGS systems), automated central securities depositories and electronic book-entry securities settlement systems to register transactions and record changes in ownership of securities.*

46. *Similarly, the efficient functioning of an FX market requires safe and efficient mechanisms for the trading, clearing and settlement of FX transactions in both the domestic and the foreign currency. An efficient FX market allows economic agents to manage their liquidity in the respective currencies and supports the real economy and cross-border trades. DvP and PvP settlement arrangements are key aspects in the risk management, which lead to significant risks reduction in money market and FX market settlement, respectively.*

STATUS IN MYANMAR

47. **The interbank money market in Myanmar is in a nascent stage of development.** The CBM monetary policy instruments are limited to 14 days, 4 weeks or 6 weeks deposit auctions and reserve

¹⁸ Efficient trading platforms and payment, clearing and settlement systems for funds and securities can boost the interbank money market. However, these are not enough for the development of the money market. Other factors include sufficiency of the eligible collateral, types of monetary policy operations conducted by the central bank, total demand for liquidity, distribution of liquidity across banks, cost of obtaining funds from the central bank, government policies, etc., which factors are beyond the scope of this strategy.

requirements for banks (currently the MRR is 5 percent of the deposits)). Interest rates are set administratively by the CBM and is linked to public finance. Repo operations between the CBM and banks are not conducted at the moment. The development of the CBM monetary operations is included in the medium-term priorities of the Government (see IMF strategy/project). The government securities market is dominated by primary issuance of T-bills and T-bonds; the secondary market is still underdeveloped. There is excessive liquidity in the market and very limited investment opportunities for banks, which triggers them to explore opportunities of the interbank repo market. Moreover, banks offer higher interbank deposit rates compared to central bank rates, particularly for 1 year fixed-term deposits.

48. The CBM has issued instructions regarding the interbank transactions, including interbank repo operations. Commercial banks can enter into up to 3 months repo without seeking CBM approval. Few commercial banks have entered into bilateral repo agreements among themselves. The CBM has been working on a regulation of interbank repo transactions and has provided some minimum requirements. However, there is no a standardized repo agreement in place. The CBM-NET guidelines allow participants to apply for collateralized intraday overdraft and up to 3 days overnight facility in MMK. Participants must pledge securities in their “pledged account” at the CBM. T-bills and T-bonds are eligible as collateral and haircuts apply. The settlement of collateralized lending takes place through the CBM-NET: the SSS/CSD operated by the CBM and the current RTGS system. Transactions between banks are settled on DvP basis and involve manual inputs.

49. **The FX interbank market in Myanmar is driven mostly by cross-border trade activities.** The FX market is dominated by transactions with USD. Many trades are transacted informally especially at borders. For reserve purpose, banks keep 5% of dollar deposits at the central bank. Banks use Thompson Reuter platform for FX trades. The settlement of the domestic leg of FX trade takes place through the CBM-NET while the settlement in USD is conducted through correspondent commercial banks abroad, including for transaction between the CBM and commercial banks.

OBJECTIVE # 6: DEVELOP THE INFRASTRUCTURE SUPPORTING INTERBANK MONEY MARKETS

- Action I. **Automated trading platform for interbank money market transactions.** The CBM in cooperation with banks and other financial institutions will implement an automated trading platform for interbank money market trades, which will connect with the new CBM-NET (the RTGS module and the SSS/CSD module) for settlement on DvP basis for collateralized transactions. The CBM will consider having a multifunctional platform for trading various instruments: central bank open market operations, including instruments that will be implemented in the future, Government securities (the primary and secondary market) and interbank lending/deposit operations. The trading platform should be scalable and able to accommodate new instruments when the need arises. The new CBM-NET will offer an efficient and safe way of settlement of such transactions, thus fostering the development of the related markets in Myanmar, including the secondary market of T-bills and T-bonds. All processes will be fully automated and manual steps will be eliminated. (See Objective #1).
- Action II. The legal and regulatory framework supporting the trading, clearing and settlement arrangements in the interbank money markets will be reviewed. The CBM will adopt/amend respective regulations to eliminate any gaps and lack of clarity. The regulations will be published on the CBM website.

OBJECTIVE # 7: IMPROVE SYSTEMS AND MANAGEMENT OF SETTLEMENT RISKS IN FX MARKET TRANSACTIONS

- Action I. **Systems for trading, clearing and settlement of FX market transactions.** The upgraded CBM-NET will offer STP function enabling automated link with the trading platforms (such as Thompson Reuters) for the settlement of the MMK obligations arising from FX transactions thus eliminating manual processing and improving efficiency. The CBM will assess options of establishing and operating a centralized automated trading platform for FX trades. One possible option would be to include FX trades in the trading platform for money market operations and integrating with the CBM-NET.
- Action II. The CBM will explore costs and benefits of establishing domestic arrangements for the settlement of foreign currencies (USD) in order to ensure PvP settlement thus reducing FX settlement risk.

3.4.2 Strengthening the institutional framework for payments, clearing, and settlement

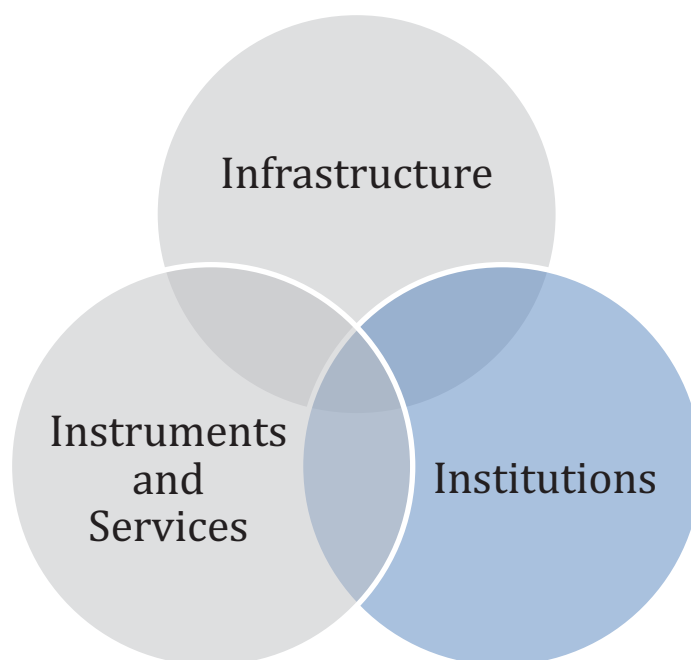
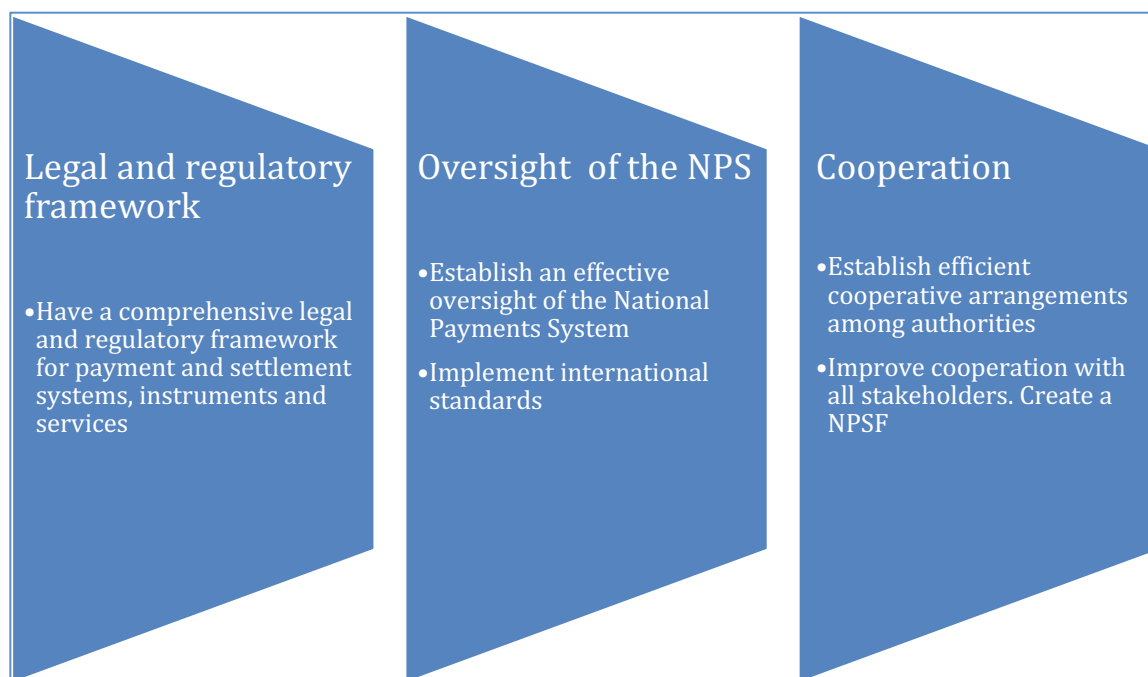


Figure 6 Key Strategic Component 2: Institutions



A sound legal and regulatory framework and strong regulatory and oversight institutions will support reforms in the payment and settlement infrastructure. Efficient cooperative mechanisms will be put in place to involve all stakeholders in the payment ecosystem in bringing forward the reforms.

3.4.2.1 Legal and regulatory framework for payment and settlement systems, payment instruments and payment services

CONTEXT

50. A sound and proportionate legal framework is considered the basis for a sound and efficient NPS. Several legal and regulatory aspects need to be taken into account in order to ensure a sound and appropriate legal framework for the NPS. This includes: i) laws and regulations of broad applicability that address issues such as insolvency and contractual relations between parties; ii) laws and regulations that have specific applicability to payment systems and/or instruments (such as legislation on electronic signature, validation of netting, settlement finality); iii) rules, standards and procedures agreed by the participants of a payment and settlement system; and iv) laws and regulations establishing clear responsibilities for the central bank and/or other regulatory bodies for oversight and regulation of payment systems and services. Relevant pieces of legislation that have an impact on the soundness of the legal framework of the payments system and that should consequently be made consistent with the general legal framework on payments include: laws on transparency and security of payment instruments; integrity; antitrust legislation for the supply of payment services; protection of users; and legislation on privacy. Finally, innovative payment instruments and channels, solutions driven by FinTech, and the emergence of new types of providers of payment services require additional provisions for security of payments, consumer protection and AML/CFT protection.

51. While laws are normally the appropriate means to enforce a general objective in the payments field, in some cases regulation by the overseers might be an efficient way to react to a rapidly changing environment. In other cases, specific agreements among participants might be adequate; in this case an appropriate professional assessment of the enforceability of these arrangements is required. Finally, since the payment systems might include participants incorporated in foreign jurisdictions or, the

payment systems might operate with multiple currencies or across borders, the rules and contracts related to the operation of the NPS should be enforceable in the event of the insolvency of a system participant in all relevant jurisdictions.

STATUS IN MYANMAR

52. The legal basis for the NPS in Myanmar has been developing over the recent years. The main acts relevant to the NPS are the Central Bank of Myanmar Law and the Financial Institutions Law (2016). The Central Bank of Myanmar law defines broadly the main responsibilities of the central bank, including developing, overseeing and promoting efficient payment and settlement systems. The Financial Institutions law (2016) has introduced important elements of a modern legal basis supporting payments, payment systems and instruments. The market for payment services has been opened to non-bank financial institutions subject to a license from the CBM. The law introduces legal protection of settlement in payment systems, legal recognition of netting arrangements and protection of collateral granted as a form of security in the payment and settlement process. It defines rights and obligations of parties in issuance and processing of electronic payment instruments, such as e-money instruments (mobile payments), payment cards. It also defines e-banking, mobile banking and electronic presentment of cheques. The Financial Institutions Law defines CBM responsibilities and powers to formulate payment system policies, to oversee payment systems, to license payment service providers and to operate payment systems itself, in addition to responsibilities listed in the Central Bank of Myanmar Law. Other relevant laws include the Law on Anti-Money Laundering and Combating the Financing of Terrorism, 2015, Electronic Transactions Law, 2004 (amended in 2013), Law/Regulations on the Issuance and Trading of Government Securities, the Securities and Exchange Law, Foreign Exchange Law and Negotiable Instruments Law.

53. The CBM has issued several regulations to address the evolving payment and settlement systems, instruments and services under the amended FI Law and the CBM Law: Regulation on Mobile banking (2013) for banks, Regulation on Mobile Financial Services (2016) which regulates mobile e-money products and services, Directive on payments by electronic card (2012), Funds Transfers Guideline and Current Account Overdraft Guideline for the operation of CBM-NET, Guideline for CSD for Government securities, MCH Guideline, Memorandum on issuance of Government T-bills, Memorandum on Issuance of Government T-Bonds, Instructions on intraday overdraft facilities/ILF, Bilateral Repo Instructions, Domestic Market Operations Procedures. SECM and YSX have issued respective regulations on trading, clearing and settlement of securities transactions.

54. Government of Myanmar has initiated several initiatives to promote modernization of the regulatory framework for financial services. Banks, Non-Banks and Policy Sub-Working Groups were formed under the Inter-Ministerial Steering Committee (IMSC) led by Deputy Minister of the MoPFI. In February 2019, Digital Financial Services Working Group was organized under the IMSC by the Financial Regulatory Department (FRD) of the MoPFI.

55. The legal and regulatory framework for payments has not been completed. The Financial Institutions Law (2016) introduced a number of provisions on payment services and payment and settlement systems aiming at improving the legal protection, clarity of rights and responsibilities of payment service providers and operators and protection of customers. While this is the first step in removing gaps in the legal and regulatory framework, implementing regulations have not yet been completed. Further efforts are needed to ensure legal protection and remove potential barriers for the adoption of new payment systems and innovative payment instruments.

56. The market of payment services is not fully liberalized. Foreign-owned banks/entities providing payment services can offer limited type of operations in Myanmar, according to the current legislation. Foreign banks are not allowed, for example, to offer services to retail customers. Limits are imposed also for the payment card industry: banks cannot issue international branded debit cards. Such restrictions create barriers for competition in the market of payment services resulting in inefficiencies

and higher costs for consumers and businesses and hampering financial inclusion. Restrictions exist also for non-banks; for example, MFIs cannot collect deposits from the public.

OBJECTIVE # 8: HAVE A COMPREHENSIVE AND SOUND LEGAL AND REGULATORY FRAMEWORK FOR PAYMENT AND SETTLEMENT SYSTEMS, PAYMENT INSTRUMENTS AND PAYMENT SERVICES

- Action I. The CBM will adopt a regulatory framework that creates an enabling environment for access to and usage of electronic payments.
- Action II. The CBM will issue a Regulation on Oversight of the National Payments System to operationalize the FIs law regarding payment services provided by non-banks. The regulation will provide conditions for the registration of payment system operators and providers of other payment services, as well as requirements for the issuance of payment instruments. The rules of any payment system operated in Myanmar shall be subject to CBM approval. Oversight powers and activities, use of agents and outsourcing, consumer protection and application of AML/CFT law, and regulations of payment services are other aspects covered in the Oversight regulation. The scope of the regulation will include issuers of all types of e-money instruments, as well as payment service providers that need to be regulated, such as payment aggregators and their agents. The regulation will create a level playing field for all providers of payment services. Furthermore, once regulated, such entities can offer services to other financial institutions: MFIs could use the agents network to expand their own services or act as agents to banks and other PSPs.
- Action III. The use of agents and sub-agents for the provision of payment and payment-related services will be regulated comprehensively and will be permitted to all types of payment service providers. The regulations will provide clarity on the minimum requirements that agents should meet. Exclusivity agreements in the use of agents will be explicitly banned.
- Action IV. A new Regulation on Electronic Money will provide conditions for issuance of e-money instruments, including requirements for the protection of customers' funds through a custodian account, the use of agents for distribution and redemption of e-money, reporting requirements and powers of the CBM to conduct inspections. This regulation will replace the existing regulations on mobile financial services and mobile banking.
- Action V. The CBM will adopt a regulation on Electronic Funds Transfers (EFT) to regulate rights and responsibilities of parties in the issuance and processing of credit and direct debit electronic transfers. Provisions will be adopted for payment cards (by review and amending the regulation on payments with electronic card) to clarify rights and obligations of parties and to improve consumer protection) and processing of e-commerce transactions. The regulatory framework will strengthen consumer protection.
- Action VI. The existing legal framework (Electronic Transactions Law) will be reviewed and amended or new legislation will be adopted (such as Electronic Commerce Law) to establish sound legal basis and provide certainty in the payment aspects of e-commerce transactions.
- Action VII. Technical and security standards and Guidelines for retail payment service providers will be issued and implemented. Cyber security aspects in payment

systems will be supported by the introduction of Cyber Security law, which is in the process of drafting.

- Action VIII. The CBM will consider in the medium term to gradually removing the remaining restrictions on foreign-owned entities (both banks and non-banks) offering payment services to foster competition for the benefit of customers and the real economy.
- Action IX. In the medium to longer term, the CBM will re-asses the need to introduce a National Payments Systems law to address in a holistic and consistent way all aspects related to payments and settlement systems, instruments and services.
- Action X. The regulations/rules of the existing and planned systems will be reviewed and amended, and new regulations will be issued where relevant to ensure that: (i) each payment system has sound, clear and transparent rules and regulations; (ii) rules and regulations provide a well-articulated and consistent framework for protection of the systems and its participants. In this regard, the CBM will adopt in a timely manner rules of the upgraded CBM-NET. The rules of MPU will be amended also to include risk management features (such as CBM provision of intraday credit to eligible MPU participants) for settlement. Similar provisions will be included in the CBM-NET rules as well.
- Action XI. The CBM will issue a regulation on cheque truncation and a regulation/guideline on MMQR.
- Action XII. The legal and regulatory framework for securities clearing and settlement (both CBM-NET CSD and YSX CSD) will be reviewed and amended, where necessary, to address all relevant aspects of clearing and settlement.
- Action XIII. The regulatory framework regarding the issuance, trading, clearing and settlement of Government securities will be enhanced. The CBM depository and settlement functions for Government securities will be better articulated in a regulation or another CBM document.
- Action XIV. The CBM will strengthen its legal capacity for payment systems and instruments.

3.4.2.2 Payment Systems Oversight

CONTEXT

57. The growing importance of payment and settlement systems and the emergence of innovative payment instruments require robust oversight by the central bank. The oversight over the National Payments System is part of the wider central bank responsibility of ensuring financial stability in the economy and maintaining trust in the domestic currency. The role of the oversight function is to ensure that systems are sufficiently protected against risks that may arise and that systems work efficiently, allowing funds to flow between individuals, business and financial wholesale markets quickly and safely. When the country is engaged in a comprehensive reform of its NPS, the central bank oversight role becomes even more important to ensure that reforms are consistent, sustainable and lead to efficiency for the people and the economy. As in other financial sector areas, international standards and best practices have been established for effective payment oversight. Such standards are depicted in the CPMI report on Central bank oversight of payment and settlement systems (2005) and the five responsibilities for authorities with respect to FMIs identified in the CPMI-IOSCO Principles for Financial Market Infrastructures (PFMIs). See Annex E and Annex F.

STATUS IN MYANMAR

58. **The CBM has established a Payment and Settlement Division (PSD) as part of CBM Accounts Department.** The focus of the PSD has been so far on the operation of CBM-NET and central bank accounting. The PSD is developing the payment oversight function. The oversight has been recently organized, although the separation of oversight from operations and oversight framework has not yet been sufficiently developed. The scope of oversight and the capacity of the staff is still limited. Recently, PSD started collecting information from banks and non-bank providers of payment services. The CBM is regulating and supervising banks in Myanmar. The Financial Regulation Department (FRD) of MoPFI is in charge of licensing of/issuing permission to non-bank providers of payment services.

59. While the legal basis for oversight has been introduced in the CBM Law and FIs Law, the regulatory framework needs to be established. The planned Regulation on Oversight of the NPS will further detail CBM responsibilities over Payment Service Providers (PSPs). Oversight policies, tools, activities, standards, internal procedures and disclosure need to be agreed, developed and documented. Formal assessment of systemically important systems in Myanmar has not yet been initiated.

OBJECTIVE # 9: ESTABLISH AN EFFECTIVE OVERSIGHT OF THE NATIONAL PAYMENTS SYSTEM

- Action I. The CBM powers and responsibilities of the CBM regarding the oversight of the NPS will be further developed and elaborated in respective CBM regulations and Guidance.
- Action II. The CBM will develop and document its Oversight Policy Framework to describe oversight policies, goals, objectives, adopted oversight standards, oversight tools and activities.
- Action III. Payment Systems Oversight will be formalized and nurtured as a separate unit under the Department responsible for payments, with clear responsibilities and reporting lines to the senior management and the Board of the central bank. The unit/division will have a sufficient number of employees to cover the various aspects of payment oversight.
- Action IV. The CBM will develop and document detailed oversight procedures and activities, as well as the exchange of information and collaboration between CBM departments regarding payment oversight.
- Action V. The CBM will consider establishing a high-level Payment System Committee within the central bank for discussion and coordination among various CBM departments involved in payment-related policies and operations of payment and securities settlement systems. The Committee will report to the Board of the CBM.
- Action VI. A capacity building and training program for the payment oversight staff will be approved by the CBM management and implemented. The training program will aim at improving the knowledge, analytical capacity and skills of the CBM in order to ensure better understanding of risks, payment trends, innovative payment instruments and schemes and international standards that are needed for the efficient implementation of oversight. In addition to training on oversight aspects, part of the program will be focused on developing technical capacity within the CBM Oversight unit. Given the rapidly changing payment landscape, the training should be ensured on a permanent basis. Rotation of staff in the Oversight unit will be limited until it achieves a critical mass of skilled payment system overseers.

- Action VII. To improve transparency and accountability of payments oversight, and in line with best international practices, the CBM will publish on its website oversight policies, information on payment systems and will maintain regular statistical information. In particular, the CBM will publish its Payment Oversight Policy Framework, analyses of the development in the domestic payments market, and monthly and quarterly statistics on payment systems operations and on payment instruments.
- Action VIII. The CBM will over time issue an annual Payments Oversight Report (as a standalone document or as part of the Financial Stability report or other relevant report of the central bank/the Government). The analysis of risks and the high-level results of the assessments of the overseen systems will be included in the report.

OBJECTIVE # 10: IMPLEMENT INTERNATIONAL STANDARDS FOR THE OVERSEEN SYSTEMS AND INSTRUMENTS

- Action I. The CBM will develop its oversight standards for payment and settlement systems and instruments in line with international standards and best practices. The criteria for assigning a system for oversight will be clearly articulated in a public document (Payment Oversight Policy Framework).
- Action II. CPMI-IOSCO PFMIIs will be formally adopted for systemically important FMIs.
- Action III. Based on international standards and good practices, the CBM will define standards for retail payment systems and for payment instruments and arrangements, such as standards for credit transfers and direct debits, standards for domestic payment cards, standards for Internet payments, mobile based payments and e-money products. The CBM will develop a framework to assess risks in innovative payment instruments and schemes.
- Action IV. The CBM will conduct regular formal assessments of the designated payment and settlement systems for compliance with the oversight standards (CPMI-IOSCO PFMIIs and Assessment Methodology), including assessment of CBM-NET and the SSS/CSD for government securities.¹⁹ The SECM will conduct regular assessments of SSS/CSD operated by the YSX (in cooperation with the CBM, where relevant).
- Action V. Designated systems will be required to publish disclosure of the system's functionalities and risk management through a Disclosure Framework, as recommended by the international standards (PFMIIs).

3.4.2.3 Cooperation

CONTEXT

60. Cooperation between regulators and market participants, and cooperation among regulators is essential for the development of a sound and efficient National Payments System. The institutionalization of cooperative oversight and information sharing arrangements may reduce the risk that frictions in cooperation between different institutions hamper the exchange of information. An

¹⁹ See CPMI-IOSCO PFMIIs, 2012 and CPMI-IOSCO PFMIIs: Disclosure Framework and Assessment Methodology, 2012.

effective oversight function requires consistent and organized consultation between the central banks overseers and:

- Other regulators or supervisors with which the central bank shares some responsibilities for oversight of relevant aspects of payment, transaction, clearing and settlement systems. Such regulators might be within the central bank or other distinct authorities.*
- The operators and the major participants in the systems designated for oversight and other payment services providers, through a cooperative forum. Such a forum is an extremely useful tool to secure constructive discussion among all stakeholders.*
- Other central banks and international organizations for the cooperative development of oversight policies and standards that can be applied internationally.*

STATUS IN MYANMAR

61. The PSD cooperates and exchanges information with other regulatory bodies, such as the FRD (in charge of licensing/registration of non-bank PSPs) and with the Banking Supervision Department of the CBM. The CBM and SECM collaborate mostly through ad-hoc meetings on issues of common interest. However, there are no formal cooperative oversight arrangements in place. The financial community is not always properly informed about planned reforms; there is no forum for discussion and cooperation among all stakeholders in the NPS.

OBJECTIVE # 11: ESTABLISH EFFECTIVE COOPERATIVE ARRANGEMENTS AMONG AUTHORITIES AND WITH THE PAYMENTS INDUSTRY

- Action I. Establish a comprehensive cooperative oversight framework for securities depositories and the clearing and settlement systems through an existing inter-institution committee or an MoU between the authorities. The competences and responsibilities of the regulators regarding the oversight of securities clearing and settlement systems will be clearly defined and coordinated, while respecting each authority's legal mandate. The cooperative oversight framework will be elaborated to avoid unnecessary overlapping in the oversight and to ensure consistency by all relevant agencies.
- Action II. The CBM and SECM will share information, opinions and views on a regular basis on systemically important FMIs, including assessment results for compliance with PFMI.
- Action III. Establish efficient mechanisms for cooperation between the CBM and FRD (MoPFI) on payment and settlement related issues.
- Action IV. The authorities will intensify regional and international cooperation with various strategic partners in payment aspects. The CBM will develop bilateral and multilateral cooperative agreements with regulators in other jurisdictions for the supervision and oversight of cross-border payment activities.
- Action V. A National Payments System Forum (NPSF) will be established as a forum for cooperation and an exchange of views between the authorities and the payments industry. The CBM, other regulators, bank and non-bank PSPs, including card scheme operators, e-money issuers, MFIs, telecom operators will be represented in the Forum. The NPSF will have subgroups/task forces to address issues of common interest in the NPS and to coordinate the implementation of various projects (such as the CBM-NET, RTRP, and MMQR). The CBM will chair the Forum and will provide the secretariat.

3.4.3 Implementing payment instruments and services that effectively reduce the use of cash in Myanmar economy

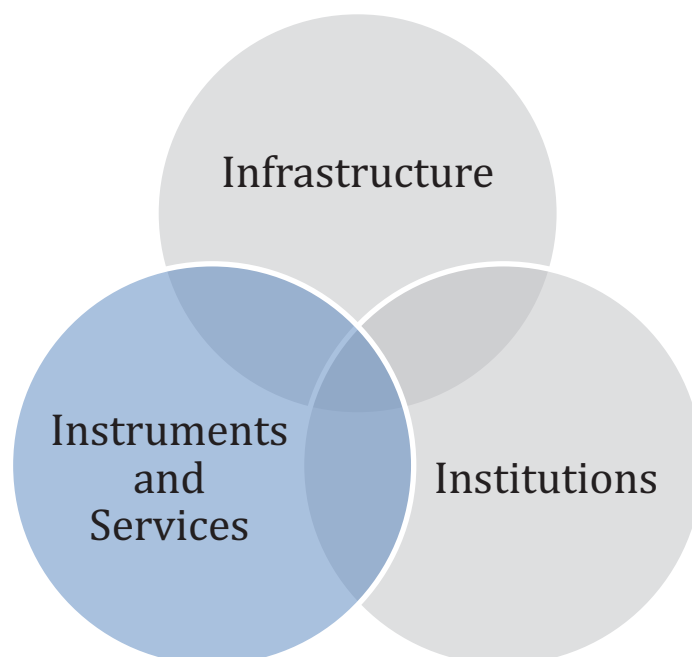
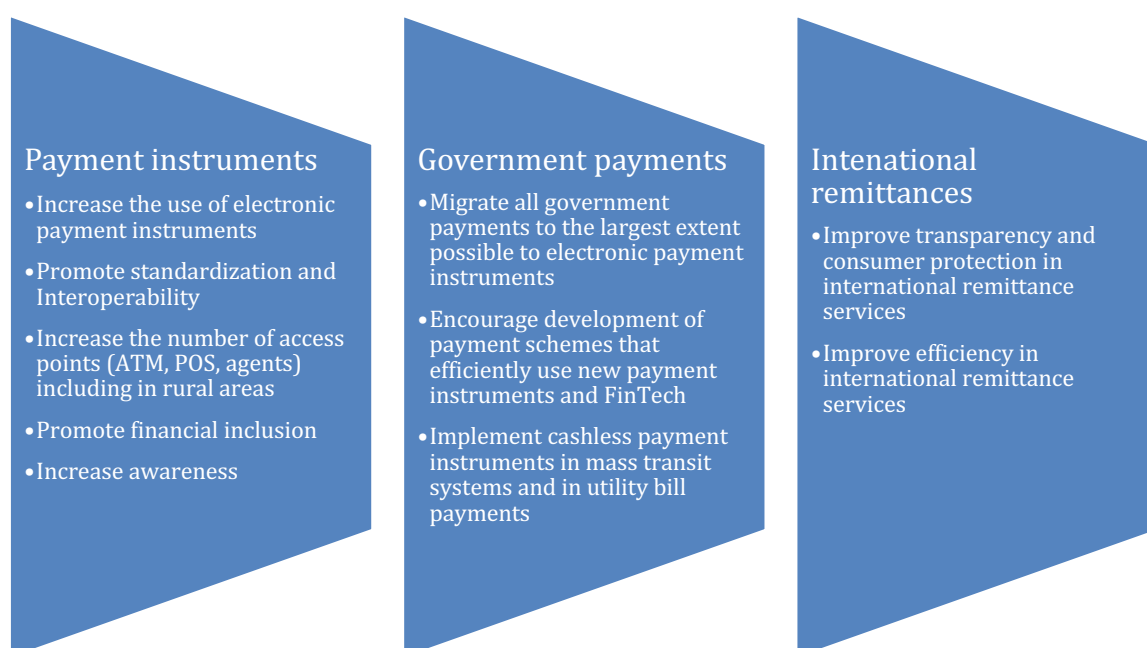


Figure 7 Key Strategic Component 3: Instruments and Services



62. This component of the Myanmar NPS Strategy aims at strategic solutions that will give more choice to more people in the provision of payment services. It promotes digital innovations in payment services, which have a great potential to reduce costs and increase outreach, speed and convenience of payments. At the same time, the Government and the CBM acknowledge the need of creating

appropriate mechanisms to control potential risks to ensure protection of participants and users of payment services. The “Instruments and Services” component contains the following elements: increasing the use of electronic payments and the diversity of payment instruments; migrating Government payments to electronic payment instruments; improving the access point infrastructure; promoting digital innovations for better payment services; reducing costs of international remittances; promoting financial education; and ensuring consumer protection in payment services and international remittances.

3.4.3.1 Promote electronic payment instruments

CONTEXT

63. Moving from cash and paper-based instruments to electronic payment instruments is beneficial for the whole economy. *Electronic payment instruments, such as credit and debit transfers and payment cards can reduce costs for the economy. Innovative payment instruments and mechanisms that have emerged during the last few years can increase the speed and accessibility of payment services at lower costs. E-money, internet and mobile banking and mobile payments support an expanding range of payment services such as person-to-person transfers, bill payments and basic deposit and withdrawal activities using either traditional bank accounts or carefully designed non-traditional transaction accounts. Advances in internet technologies and devices have paved the way to increase the number of channels used to initiate and accept payments. This transformation of cashless payments driven by technological innovation and behavioral changes makes payment instruments more diversified and increasingly digital. Payment services are becoming more available, ignoring physical borders and time constraints to satisfy customer demand for fast, continuous and safe payment services. The developments also raise several questions regarding security, data privacy and data protection, therefore implementation of new technologies should be approached with caution. To support countries in reforming retail payments and moving to electronic payment instruments, the World Bank has developed a framework for developing a comprehensive retail payments strategy (see Annex G).*

64. Financial inclusion is an aspect of financial development, which is influenced heavily by the way people make payments. *Financial inclusion exists when people have effective access to a wide range of financial products and services at affordable cost. The first step of financial inclusion is access of each individual and business to a transaction account and to payment services. Increasing access to financial services is a powerful tool for poverty reduction. Achieving broader financial inclusion builds on the development of efficient, affordable, accessible and convenient retail payment services and payment instruments. For these reasons, financial inclusion is high on the political agenda of the G20 and the World Bank Group amongst others. Central banks increasingly include financial inclusion in their policy goals and in their national payment system strategies. The World Bank, in cooperation with the CPMI, has developed Guiding Principles for payment aspects of financial inclusion (see Annex H).*

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65. Retail payment instruments include cash, cheques, credit and debit cards, credit transfers and direct debits, and innovative payment instruments, like e-money. Retail payments can be initiated in person or remotely. Users of retail payment instruments can be broadly categorized into consumers, businesses, and government agencies. All of them have a dual role, being the payer for certain transactions and the payee for others. Depending on the payer-payee combination, retail payments can be categorized into different types. The possible combinations are shown in Table 1 below.

Table 1: Types of retail payments, based on the payer-payee combination

Payer \ Payee	Consumer	Business	Government Entity
Consumer	P2P	P2B	P2G
Business	B2P	B2B	B2G
Government Entity	G2P	G2B	G2G
P=Person, B=Business, G=Government			

Source: World Bank, A Practical Guide for Measuring the Costs of Retail Payments, 2015

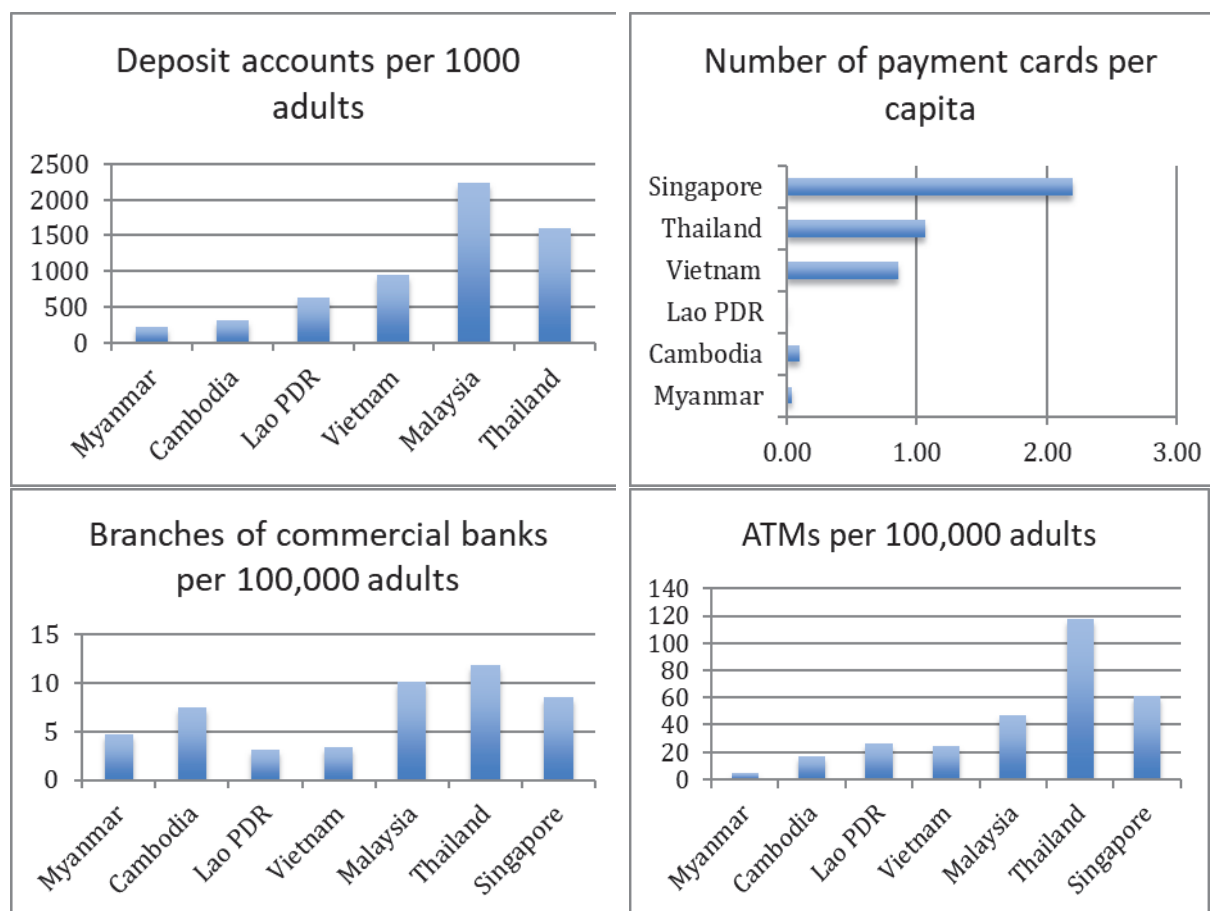
66. Cash is the prevailing payment instrument in Myanmar for the whole range of payment services.

Cash is used for P2P, government payments and collection, utility bill payments, by individuals, small and medium-size businesses and even by large corporates. Domestic remittances, which generate significant payment flows in Myanmar, are also predominantly in cash. Remittances enable support to reach to families in rural areas (70% of the Myanmar population lives in rural areas) in the face of volatile agricultural incomes. Domestic migrants in Myanmar send money home through relatives or friends, or when they return to their villages themselves. This carries personal risk and limits the ability of migrants to send money at regular intervals. In addition to cash, cheques are used by the Government and much less by businesses. Processing cheques, however, is costly and managing risks is more difficult compared to electronic credit and debit transfers.

67. Access to basic financial services in Myanmar is extremely low. In 2017, only 26 percent of adults in Myanmar had access to an account (compared to 29 percent in Lao P.D.R, 31 percent in Vietnam, 82 percent in Thailand, and 85 percent in Malaysia).²⁰ Other indicators of financial inclusion also point to low levels of access compared to other economies in the region (Figure 8). In addition, the usage of those accounts is low when compared to peer countries.

²⁰ Source: World Bank Global Findex, data 2017

Figure 8 Selected financial inclusion indicators



Source: IMF FAS 2017, World Bank Global Findex, data 2017, World Bank calculations. Cambodia: data March 2016

68. The low level of access to financial services is one of the reasons for the heavy dependence on cash and low usage of electronic payment instruments. Other reasons are, among others, inefficiencies in the payment infrastructure and low financial literacy. As indicated in the first component of the NPS Strategy, the current interbank systems do not offer a sufficient choice of payment instruments and efficient and low costs options for various types of retail instruments, such as electronic credit and direct debit transfers. Direct debit transfers are offered only within the same bank; there is no interbank clearing for such payment instruments in Myanmar.

69. Banks in Myanmar issue debit, credit and pre-paid cards. International payment card companies (Visa, MasterCard, JCB) re-entered the market in 2012, after the liberalization of the financial services. However, because of the existing restrictions, their activity is limited. JCB and UnionPay transactions are cleared through MPU, but Visa and MC transactions have not joined the national switch. Currently, there are about 5 million domestic debit cards. The number of credit cards is very low and used mostly for traveling abroad. International card companies were allowed to issue credit cards starting from 2017. The ATM/POS infrastructure is growing but is still limited compared to neighboring countries and is concentrated in the major cities. According to IMF FAS, as of 2017 there were 4.38 ATMs and 4.7 bank branches per 100,000 adults in Myanmar. Similar is the situation with POS terminals. As per MPU data, there were about 6,000 POS terminals throughout the country (13 POS per 100,000 inhabitants). Cash withdrawals dominate transactions made with payment cards. The unique BIC and (or similar) standard have not yet been introduced in Myanmar.

70. Myanmar has experienced a dramatic increase of SIM card penetration from 7 percent in 2012 to 105 percent in 2017, of which 80 percent are attached to a smartphone. SIM card prices went down sharply from 2000 USD to a mere 1.50 USD. The unique SIM penetration, however, remains low at 50

percent.²¹ Moreover, a World Bank survey of customer's awareness of mobile payments, conducted in May 2018 in the Bagu region, revealed that while the penetration of mobile phones is high most people use the phone only for making a phone call. Parents learn from their children how to use social network applications but are unaware of or uncomfortable to use apps for making payments. The number of Internet users has also increased rapidly, reaching 46 million, 70% of which through mobile phone.²²

71. The dramatic rise in mobile phone and Internet penetration has created large opportunities for innovative payment instruments and services. **Banks and non-bank PSP (mobile money providers) have started offering innovative ways of transferring money** for P2P, small B2B, utility bills and similar payments. However, the volumes are still very low. Few banks offer internet and mobile banking. Similarly, e-commerce transactions are limited, due to a certain extent to an incomplete legal and regulatory framework.

72. **Currently, there are 16 e-money schemes in the country:** three mobile-led, twelve bank-led and one private e-wallet operator. Non-bank institutions must obtain permission to issue e-money products (mostly mobile payments). The largest e-money providers have extensive and rapidly growing agent networks, which are presented in most towns across the country. Customer base and payment volumes are growing rapidly but remain concentrated in major cities. Most users are those without a bank account. Significant volumes of transactions (reportedly about 90% of all transactions) go through so-called OTC transfers. In this scheme, the customer does not have an e-money account; the transfer of funds takes place through agent-to-agent wallet transactions. The existing e-money schemes are not interoperable. The popularity of payments through Facebook and e-commerce through Facebook shops is growing very fast; these payments, however, are not traceable.

73. Myanmar Post operates money order services system. At present, to provide better services, Myanmar Post has been using online network system to transfer money orders across the country via over 700 post offices. For convenience to the public and given its large network of offices, Myanmar Post is also serving as cash in and cash out agent of banks and mobile money providers.

74. Government strategies for improving access, reducing cash in the society and foster financial inclusion have not yet achieved government goals for cashless society and financial inclusion. The following strategic actions have been identified in the area of payment instruments and retail payment services.

OBJECTIVE # 12: INCREASE THE USAGE OF ELECTRONIC PAYMENTS INSTRUMENTS

- Action I. The usage of electronic fund transfers and innovative payment instruments, instead of cheques and cash, will be promoted through government programs, incentives for financial institutions and creating awareness among the population. While cheques' use will be discouraged, given the high cost of processing, the CBM will continue to provide cheque clearing and settlement services if the demand for cheques persists.
- Action II. The CBM, in cooperation with the MoPFI and payment services providers, will promote arrangements and services that leverage the upgraded retail payment systems (CBM-NET, RTRP) for processing payments of individuals, entities, government units for recurrent payments like bills, fees, charges and e-commerce payments through electronic payment instruments.

²¹ Source: The World Bank, Telenor Report on Digital Myanmar.

²² Source: The World Bank.

- Action III. The CBM will promote policies and incentives for financial institutions (such as pricing policy) to expand the acceptance infrastructure (POS and ATM network), including penetration to rural areas.
- Action IV. To reduce costs and increase convenience for users, the CBM and the Government will promote new types of access channels and instruments (QR code, mobile POS, NFC technology in payment cards, multi-purpose, multi-function cards, mobile and internet solutions and FinTech products).
- Action V. The CBM will encourage transparent and fair pricing of various payment instruments, including cheques, payment cards, credit and debit electronic transfers. The fee structure of various payment instruments will be studied and reviewed in order to avoid surcharges and incentivize the use of non-cash payments.
- Action VI. The CBM will foster cooperation between all stakeholders in the payment industry. Coordinated efforts are needed among banks, the central bank, the Government, MPU, international card schemes, e-money providers, aggregators and payment platform operators to cooperate on interoperability of the infrastructure and on developing electronic payment products suitable to customers in Myanmar.
- Action VII. The CBM will conduct research on the latest technological developments and their potential to improve retail payment services in Myanmar.
- Action VIII. The CBM will support the development of adequate capacity and know-how in payments across the payment industry through organizing seminars and workshops. To this end, capacity-building initiatives will be organized, if necessary, with partner institutions in other countries and with technical assistance from external experts.
- Action IX. E-commerce transactions will be supported by reviewing and removing potential gaps in the legal and regulatory framework for payments.
- Action X. Explore the options of leveraging the Myanmar Post network for disbursement of social benefit transfers. (See also the section on international remittance services).

OBJECTIVE # 13: PROMOTE STANDARDIZATION AND INTEROPERABILITY

- Action I. The CBM will promote interoperability and standardization in the payment industry and the adoption of international standards and best practices for payment instruments and systems.
- Action II. To increase trust in electronic payment instrument, fraud and data security risk management in retail payment instruments will be strengthened by establishing and enforcing minimum security standards.
- Action III. A migration plan will be considered and implemented to enhance security and safety of card payments and interoperability with other payment systems in the region and globally. All payment cards will be EMV compliant. Some of the banks and MPU have started issuing EMV compliant cards. The standardization in payment cards will facilitate linking the domestic card network (ATM/POS)

to the Asia Payment Network (APN) and encourage the use of local debit cards.²³

- Action IV. The CBM has been encouraging the adoption of QR codes developed and accepted internationally. The project for implementing a common Myanmar QR code (MMQR) at merchant level that is based on EMVCo specifications is in an advanced stage.
- Action V. The CBM in cooperation with banks will develop and implement a plan for the adoption of Standardized Bank Branch Code referencing with IBAN, for identifying bank accounts across banks and national borders to facilitate the communication and processing of cross border transactions with a reduced risk of transcription errors.
- Action VI. In addition to standardization, the CBM will promote interoperability between systems, as well as payment instruments through: establishing an interoperability arrangement for QR-code initiated payments, ensuring fair access to payment systems in the country, including for non-bank PSPs; and having regulations requiring providers of e-money and other innovative instruments and schemes to ensure interoperability with other similar schemes and other instruments. An informal group of the CBM, 5 large banks, 3 licensed e-money issuers and payment card providers has been established to discuss interoperability options. The group can be a core for future NPSF (see Objective #11.5).
- Action VII. Unique National Identification Number will be introduced for Myanmar citizens. This project will be coordinated by the Ministry of Labor, Immigration and Population. Among other things, unique national ID will allow on-line identity verification services to operate smoothly and effectively and will support financial inclusion and AML/CFT measures.
- Action VIII. The dispute management process for the retail payment systems, instruments and services will be elaborated and strengthened to protect customers.
- Action IX. To increase transparency, the CBM will collect, compile and publish regularly (monthly, quarterly) statistics on the usage of various payment instruments and access points in Myanmar.

OBJECTIVE # 14: PROMOTE FINANCIAL INCLUSION

Increasing access to financial services is one of the priorities of the Government of Myanmar in its Financial Sector Development Strategy, given the importance of broadening the number of financially included individuals and small businesses for the economic development.²⁴

Financial inclusion is a cross-cutting objective and many of previous strategic objectives already include actions that will enable and enlarge access to and usage of payment services:

²³ The APN allows domestic ATMs of ASEAN members to process cross-border payment card transactions.

²⁴ Other initiatives, such as the WBG sponsored Digital Myanmar project, Myanmar Financial Inclusion Roadmap developed with support of United Nations Capital Development Fund (UNCDF) and DaNa Facility, and the joint White Paper of MasterCard and Visa on Government payments prepared on request of the State, all recognize the importance of financial inclusion for developing the economy, the financial system and for poverty reduction in Myanmar. The FRD (MoPFI) is developing a new Financial Inclusion Roadmap (2018-2022) in cooperation with UNCDF and DaNa Facility based on the result of MAP Refresh Survey. The objective of this new roadmap is to "Increase formal Financial Inclusion in Myanmar from 48% in 2018 to 60% by 2022, and adults with more than one product from 17% to 25%, with a full range of affordable, quality and effective financial services.

- Action I. Financial inclusion will be fostered through initiatives for proportionate and non-discriminatory regulatory framework on payments that support innovations and consumer protection, allows non-banks to provide payment services (See Objective #8).
- Action II. Developing a robust, safe, efficient and reachable payment infrastructure, in particular the ACH, an interoperable payment card switch and e-money schemes will make access to payment services easier, convenient and affordable (See Objective #1 to 4).
- Action III. Increasing the access points, such as ATM and agent models, will contribute to broadening access to payment services (See Objective #12).
- Action IV. Similarly, moving G2P payments to electronic payment instruments has the potential to increase number of people with access to electronic payment services (See Objective #16).

This will be complemented by initiatives tailored to address the needs of people in rural area, individuals and families with low income and low financial literacy and financially excluded. In particular:

- Action V. The CBM in cooperation with banks, the Government and government agencies, will implement initiatives to increase the number of people with basic transaction account. In addition to non-bank payment service providers, such as e-money issuers, banks will also start offering basic accounts. Giving access to a transaction account to unbanked population can result in a gradual increase in making payments through non-cash payment instruments and can serve as a gateway to expand the access and use of other financial services like credit, savings and investments. The design of a “basic” bank account will ensure its affordability yet keep the essential features of a transaction account. At a minimum, basic accounts will make it possible for the target population to store value safely and to send and receive payments electronically at little or no cost.
- Action VI. An increase in the number of transaction accounts will go together with an increase of access points, such as POS and cash-in/cash-out points. In this regard, the CBM will encourage banks and non-bank PSPs to work together to increase the number of agents (including small and local retail stores) and develop agent-based models that are suitable for rural and remote areas and for under banked population.
- Action VII. Modern, easy-to-use payment services (such as payments via mobile phones) will be encouraged by leveraging the existing network of banks, MFIs, and agents of payment service providers. This will be developed consistently with the implementation of other programs for financial inclusion in Myanmar.
- Action VIII. Recurrent payment streams, such as salary payments, payments for utility bills and remittances will be leveraged to promote the use of transaction accounts.
- Action IX. The Government and government agencies will promote and implement tailored schemes for paying social benefits and salaries through non-cash electronic payment instruments, (such as paying to a bank account/or mobile account, using pre-paid cards or mobile payments) targeting in particular rural areas and underbanked.

OBJECTIVE # 15: INCREASE AWARENESS OF THE POPULATION OF MYANMAR ON THE USAGE OF CASHLESS PAYMENT INSTRUMENTS

- Action I. Awareness initiatives for electronic payments will be aligned with other Government strategies and initiatives for financial inclusion aiming at promoting sustainable and inclusive growth (Digital Myanmar project, Myanmar Sustainable Development Strategy). Awareness of the population regarding the usage of transaction accounts and non-cash electronic payment instruments will be enhanced through financial education programs, training and guidance.
- Action II. Initiatives will include programs developed through partnership between the Government, the CBM, banks, other providers of payment services, central and local governments and local media. Programs of international donors and organizations (such as DFID, UNCDF) on financial literacy and financial inclusion can be leveraged.
- Action III. Changing the culture and consumer behavior takes time and is expensive. For the last four decades all payments in Myanmar were made in cash. Financial literacy is needed on both, the consumers and the business side. Financial literacy efforts will target the main aspects that inhibit individuals and businesses to change their payment habits. For individuals, programs will focus on explaining how the new products can effectively help meet an individual's payment and store-of-value needs. The programs will also target specific aspects, such as: fear that the new products may be vulnerable to fraud, perception of loss of privacy, and fear of dealing with complicated systems. On the business side – it is needed to articulate the benefits of electronic payments and provide clear instructions to businesses on how to operate new products. For example, the introduction of a standardized QR code in Myanmar will be supported by educational campaign for individuals, merchants and banks. Incentives suitable to the local culture will be created, for example raffle/ cash back incentives.
- Action IV. Mass awareness and usage promotion campaigns will cover all social groups in both urban and rural areas, individuals and small and medium businesses. Effective educational programs, workshops and seminars will be developed for targeted group of participants, such as people in rural areas, senior citizens, women, to promote financial knowledge and skills regarding non-cash payment products and services and to increase the capacity to manage risks and increase the confidence in using non-cash payments. Teaching materials should be drafted with simple language and regularly updated to support public educational efforts. Since 70% of the Myanmar population resides in rural areas, the CBM and the Government will promote educational campaigns with outreach outside major cities.
- Action V. A dedicated awareness program for pensioners will be developed and implemented by the Government of Myanmar regarding the use of transaction accounts and non-cash electronic payment instruments. The program will target more than 1 million pensioners (former civil servants) in Myanmar. It will be designed to provide information to pensioners in a simple and understandable way how to contact a bank and the steps involved in opening and using an account.

- Action VI. Basic concepts of electronic payments, particularly new non-cash payment instruments and channels, should be developed and introduced to local government institutions.
- Action VII. Private sector awareness initiatives, such as videos, printed material, call centers for customers, games through apps for smart phones on the usage of electronic payment instruments will be encouraged. Some of non-bank PSPs have started offering such educational products.
- Action VIII. To increase the public's awareness of the NPS Strategy and its benefits, the CBM, Government and other stakeholders will develop public documents explaining what benefits the implementation of the Strategy will bring to the businesses and the population in Myanmar. The strategic objectives will have to be known to the business community and the general public, through public information and educational campaigns.

3.4.3.2 Government payments

CONTEXT

75. The scale and importance of government payments play a key role in promoting growth and innovation in a country's retail payment infrastructure. The public sector generates massive payment flows for tax collection, salaries, payment of social benefits and purchase of goods and services. Manual and paper-based payments incur significant cost for the government. The use of electronic payment instruments for government payments may lead to significant cost savings, safety and transparency and can also become an effective tool in pursuing other public policy objectives, such as promoting financial inclusion by extending non-cash electronic payment instruments to the unbanked.

76. In recent years, more and more attention has been devoted to the integration of government payments into the NPS.²⁵ The migration to electronic payments for government payments is a complex task and collaborative effort of the central bank, payment industry and the government. The payment infrastructure itself is not sufficient to implement electronic government payments. A precondition is the reform of the budget management system of the government at both central and local levels and its integration with the payment systems infrastructure. Strong political commitment at a high level and close cooperation and collaboration among government authorities in the country is necessary to make a change in government payments.

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77. Currently, most government payments are conducted in cash or cheques and some of them through fund transfer to bank accounts. The Government of Myanmar has assigned Myanmar Economic Bank (MEB), a state-owned bank, as the sole bank for processing all government payments (collections and disbursements) through its 300+ branches across the country. Once the Union budget and the State/Regional budgets are approved and the budget law is enacted, the Budget Department of the MoPFI allocates the budget/expenses to the various government ministries and departments, which are then communicated to the MEB for further action and management. However, since MEB's internal systems are not fully automated, many of the processes are currently manual and there is no automated link between the MoPFI's Financial Management Information System (FMIS), the relevant MEB (and other) systems and the CBM-NET system.

78. For disbursement of salaries to government employees and social benefits, ministries and government agencies send to MEB cheques and information regarding monthly payments. The respective amount is then withdrawn from MEB (each local government has a Pay Master) and

²⁵ The World Bank General Guidelines for the Development of Government Payment Programs, 2012, provide a broad based framework for guiding program implementations derived from international good practices.

disbursed in cash to final beneficiaries. Pensions and gratuity to retired government staff are also paid through MEB. Corporates delivering goods and services to the Government also submit cheques to MEB. For a small number of civil servants in Naypyitaw, Yangon and Mandalay, salaries are paid through a bank account and MPU card. The Ministry of Education has initiated payment of wages through an MPU card. Employees can use ATM network of MEB and other banks to withdraw cash. Individuals and small businesses pay taxes by depositing cash at MEB or by account transfer payment through CBM-NET CCT function.

79. The rapid increase in access to internet, social media and new payment instruments has increased expectations of the population for improved Government services and transparency. Recently, MEB has established a pilot scheme through partnership with a private bank to use mobile banking to distribute pensions and with e-money providers (such as Myanmar money, Wave money) for G2P payments.

80. The Government of Myanmar has committed to reduce the usage of cash and cheques and to move government payments to electronic means and has undertaken several initiatives in this direction. A high-level e-Governance Master Plan has been developed by the Ministry of Transport and Communications, which covers all expected aspects of e-Government development.²⁶ The Digital Economy Development Committee (DEDC) has been established by the MoPFI to develop and coordinate Digital Myanmar strategy. The CBM is leading the banking Working Group on digital financial services, which has been established under the National Payment Governing Committee. Several programs on G2P payments have been initiated that can potentially cover hundreds of thousands of government employees. This includes Maternal/childcare program, Social pension plan program, Government employees pension program and Overall government employee program with a focus on teachers' salaries in the initial stage. All programs are in a pilot phase. Recently the Internal Revenue Department launched an on-line gateway for corporates to pay taxes using MPU cards; it became compulsory for some companies to use the on-line service. The e-government component of Digital Myanmar project includes also activities for digitalization of government payments, such as tax collection, utility payments and automation of state-owned banks. A document drafted by MasterCard and Visa (the White paper) has proposed initiatives for digitalizing Government payments. The initiatives of moving payments to and from government to electronic payment instruments, however, are still in the initial stage, have not been properly coordinated and significant progress in reducing government payments in cash is still to be seen.

OBJECTIVE # 16: MIGRATE ALL GOVERNMENT PAYMENTS TO THE EXTENT POSSIBLE TO ELECTRONIC PAYMENT INSTRUMENTS

- Action I. The CBM will work closely with the MoPFI and other relevant agencies to migrate payments to and from the Government and Government agencies to electronic payment instruments (credit transfers, direct debits, e-money instruments). The Government will exploit and implement modern innovative payment arrangements and instruments for the disbursement of government payments. Payments in cash will be reduced and gradually eliminated. The use of large denomination cheques in government payments will be diminished. The MoPFI, CBM, e-commerce related government organizations, other relevant government agencies will engage in broad discussion with providers of payment services both banks and non-banks, in order to have effective, efficient and quick implementation process and comprehensive outcomes.
- Action II. Establishing a centralized financial management information system for government payment flows will be considered. This will allow the MoPFI to

²⁶The e-Governance Master Plan is expected to get formal sign-off from the President's Office in the near future

have full information about payments of various ministries and government agencies.

- Action III. To take full advantage of the reformed NPS, the CBM will promote integration of Government payments with the upgraded payment infrastructure (CBM-NET, RTRP) for distribution of government payments (such as salaries of government employee, social benefits) and government collections (taxes, fees). This process would also facilitate future reforms in the public accounts system.
- Action IV. The CBM will encourage development of payment schemes by commercial banks and non-bank providers of payment services that efficiently use the benefits offered by the existing and new payment infrastructure as well as new technologies - internet, mobile payments, pre-paid cards, FinTech solutions - for government payments. Particular attention will be given to developing appropriate instruments and arrangements for payments to/from underbanked population.
- Action V. The modernization of MEB (as part of the public finance management project for Myanmar, supported by the World Bank group) will be completed in a timely manner with a large number of MEB branches connected to the MEB Core Banking System. The MoPFI's financial management information system will have an automated interface with the MEB systems and other relevant systems. In the modernization project, the government can consider decoupling government activities that are currently conducted by MEB from the MEB banking while MEB will continue to provide banking service to government.
- Action VI. The Government will implement the automation of payment processes in all ministries, government agencies and local governments (as part of on-going e-Government initiatives). Coordination between various government agencies and initiatives will be encouraged to improve efficiency and to avoid duplication of efforts in the planned reforms.
- Action VII. Internal documentation regarding payments and relevant regulations will be updated to reflect migration from paper-based recording to electronic recoding.
- Action VIII. Government initiatives for disbursement of social benefits through electronic payments will move from pilot to full-scale implementation with the aim of covering all potential beneficiaries in the long term. Pension system reforms will be advanced by implementing, among others, Digitalized Record Keeping System in the Pensions Department of the MoPFI and payments in electronic/digital form through automated ICT connection with commercial banks (MEB).
- Action IX. An e-payment gateway for on-line payments will be developed for all types of payments to the government in a collaborative effort of the Government, CBM, commercial banks and other stakeholders.
- Action X. The Government will consider giving access to other banks (in addition to MEB) to process government disbursements and revenue collections. This will increase competition, promote innovations and will result in price reduction and better services for the population. Beneficiaries should be able to choose the bank and open an account as per their convenience. Such accounts will be registered in the government system for managing payments to facilitate

automated electronic transfers. Such government policies will require involvement and coordination among Government agencies and update of Government financial regulations.

- Action XI. Furthermore, government collection (such as tax payments) and disbursement services will be gradually open to all type of PSPs, including non-banks. E-money schemes and Internet and mobile banking channels offer huge opportunities for efficient P2G and B2G payments at low cost.
- Action XII. The Government, in cooperation with public transport agencies and payment service providers, will explore options and implement suitable payment mechanisms for mass transit systems that are based on cashless payment instruments. Such payment mechanisms will be interoperable across transit systems.
- Action XIII. Given that most of utility bills are currently paid in cash, the MoPFI will collaborate with large utility companies in Myanmar to create incentives for using electronic payments. Such incentives include introducing rebates offered by billers or VAT/Commercial Tax/Sales Tax rebates on purchases if bills are paid via direct debit. This can be supported by awareness campaigns with customers, biller own employees and local authorities. Furthermore, providing VAT/Commercial Tax/Sales Tax rebates for other electronic payments (not only utility bill payments) for both merchants and consumers could be considered. Introducing Tax rebates might require changes in the Commercial Tax law, investments in new infrastructure and IT systems and substantial time for their implementation.

3.4.3.3. International Remittances

CONTEXT

81. *International remittances are increasingly relevant for the societies driven by growing economic integration and mobility of the labor force among countries and the increasing flow of migrants all over the world. However, remittances can be expensive when considering the income levels of migrant workers and the relatively small amounts sent (typically, a few hundred US dollars or equivalent). Also, it may not be easy for migrants to access remittance services if they do not speak the local language or do not have the necessary documentation. The relatively undeveloped financial infrastructure in some countries may make it difficult for recipients to collect remittances. In addition, lack of competition and regulatory barriers could contribute to higher costs to the provision of remittance services.*

82. *International financial institutions, governments and international standards setting bodies have put in place several initiatives to enhance the efficiency and integrity in the provision of remittance services. In 2007, the CPMI and the World Bank issued a joint report on General Principles for International Remittance Services (see Annex I). The General Principles (GPs), together with the Special Recommendations of the Financial Action Task Force (FATF), are guiding the action of authorities, multilaterals, and service providers in this area. The G8 and G20 countries have set among their objectives the reduction of the average cost of remittances by 5 percentage points in 5 years (5x5 objective). It was estimated that achieving this objective would save to migrants and their families \$16 billion per year: these funds could contribute significantly to improving the living conditions of the migrants themselves as well as reducing poverty in their countries of origin. Through the Remittance Prices Worldwide database, the World Bank monitors the achievement of this important objective.*

STATUS IN MYANMAR

83. According to official sources, approximately 2.9 million Myanmar citizens live abroad.²⁷ It is estimated that the actual number of migrants is much higher, up to 10% of the population, when including undocumented migrants living abroad. Most Burmese migrants are concentrated in Thailand, followed by Malaysia.

84. Myanmar is a net receiving country of international remittances. Officially recorded annual international remittance flows are less than 4% of the country GDP, but these records are likely to be under estimates. In addition, they do not include remittances reaching Myanmar through informal channels. Remittances are thought to be a significant source of income for many families in Myanmar. Recorded remittance inflows to the country were USD 2,754 million in 2018 (3.9% of GDP). Cost of sending remittances to Myanmar was 10.52% as a percentage of the amount sent in Q4 2018 (compared to 14.38% for Cambodia, 15.55% for Laos, and 6.94% for Vietnam). This is considerably higher than the global average, which was recorded at 7% at the same time and the regional average for East Asia and the Pacific, which was 7.3%.²⁸ The UN Sustainable Development Goals set a target of 3% for the global average cost of sending remittances by 2030 and indicated that by then, in all corridors there should be options to send remittances for 5% or less.

85. Only banks with an Authorized Dealer license can offer remittance services in Myanmar. International Money Transfer Operators (MTOs) enter into a partnership with banks in Myanmar and use them as disbursement agents. While international MTOs are not directly regulated, each partnership agreement is subject to CBM approval. Some of the banks have exclusivity agreement with international MTOs. The number of bank branches where remittances are disbursed can be estimated around approximately 1,000 in the whole country, which is extremely low.

86. The existing legal restrictions, exclusivity agreements, limited access points and inefficiencies in the current interbank payment systems limit competition in the market of remittance services and create incentives for customers to rely on unofficial channels. Remittances are often sent through unregulated channels (especially from Thailand). The most popular channel is the well-developed network of families and friends. Cash persist as a main instrument to send remittances. Of ten banks are required to accept large deposits of cash by individuals, who most likely operate as “Hundi”, the local form of unregulated RSP.²⁹ The magnitude of these services raises a significant concern to regulators and to the market. Banks do not seem to be interested in investing in dedicated products mostly because they do not see the remittances market as a profitable business. Consumer protection and low financial literacy of remittances receivers are other areas that need further attention.

OBJECTIVE # 17: IMPROVE TRANSPARENCY AND CONSUMER PROTECTION IN THE INTERNATIONAL REMITTANCE SERVICES

Action I. The legal and regulatory framework for international remittances will be strengthened and proportionate risk-based regulatory requirements will be introduced. Non-bank service providers will be allowed to disburse remittances, either directly or as agents. Exclusivity agreements to be banned.

²⁷ Data from 2015. United Nations and IOM estimations.

²⁸ Source: The World Bank Remittance Prices Worldwide Database.

²⁹ The “hundi” system consists in an informal exchange of payments between agents of the same organization, across multiple locations. The settlement of the agents’ positions is performed via business relationships built on personal trust.

- Action II. The CBM will work to clarify the language of the Financial Institutions Law and the Foreign Exchange Management Law and Regulation to avoid any ambiguity or lack of clarity regarding which entities can provide remittance services.
- Action III. Legal provisions on consumer protection will cover remittance services in their scope. The CBM, as a regulator and supervisor of remittance service providers, will establish clear requirements for transparency, information disclosure, and the protection of consumers of remittance services.
- Action IV. The quantity and quality of statistics relating to remittances will be improved. The CBM will take full advantage of the data it collects, improve the data reporting requirements to obtain more granular information, and elaborate and publish more accurate statistics on remittances. Surveys or similar tools will be used to estimate the scale of the remittances transferred via unregulated channels.
- Action V. Robust AML/CFT measures and practices will be implemented in international remittance services.

OBJECTIVE # 18: IMPROVE EFFICIENCY IN INTERNATIONAL REMITTANCE SERVICES

- Action I. The planned modernization of the payment infrastructure (CBM-NET, RTRP) and the interoperability of systems and instruments will allow a more efficient payment exchange among banks and other system participants leading to cost reductions and an increase of speed. RSPs will be encouraged to leverage the new systems and electronic channels for disbursement of remittances.
- Action II. The CBM will promote the development of payment schemes based on innovative products (such as internet and mobile payments). The CBM will explore and promote, in cooperation with the payment industry, innovative solutions for international remittances that have the potential to reduce costs and increase convenience for customers.
- Action III. The CBM will encourage banks/create incentives for banks to develop specialized products and services for cross-border remittances including services based on innovative payment instruments to reduce the usage of cash.
- Action IV. The CBM will consider initiating policy dialogue with the regulators of remittance sending countries (e.g. Malaysia, Singapore, and Thailand) to discuss solutions for remittance flows through formal channels. Such dialogue could also lead to innovative pilots that would allow new market entrants to test their services.
- Action V. The network of access points for international remittances will be strengthened, in particular in rural and remote areas. For this purpose, it is critical that all potential access points be fully leveraged, including by allowing non-bank financial entities to offer remittance services. The National Post Office network could also be exploited as disbursement platform. A wider development of payment card infrastructure and improved interconnectivity between different payment instruments, including mobile money, can significantly increase the number of points of access to distribute remittances as well as the variety of product and options that can be offered by RSPs.
- Action VI. Dedicated financial education programs will be developed and implemented for remittances receivers, including as part of pre-departure program for

migrants and their families on possible options of sending money home through regulated service providers and on the risks of using unofficial channels. Special attention will be given to the underbanked population.

Action VII. The CBM will cooperate with banks and non-bank RSPs to address issues related to remittances through the NPSF (See the section on Cooperation). A sub-group will be established within the NPSF to facilitate coordination on remittances, involving all relevant ministries and government agencies. The sub-group should promote cooperation among public authorities on a policy and implementation level to ensure that an appropriate, coherent, and coordinated policy framework is in place with regard to remittance services.

3.5 Implementation of the NPS Development Strategy (2020-2025)

87. **The implementation of the NPS Development Strategy of Myanmar will be based on a phased approach**, which will spread out the implementation of the strategic programs over a period of six years (2020-2025). Each stage will be characterized by a certain number of initiatives to be implemented according to a detailed and realistic action plan. The phasing will be done based on a careful prioritization of the agreed objectives and actions. Some of the actions could be completed within a shorter period, while others will be implemented over the next 4-6 years. Three types of priorities are recommended. Short-term priority refers to initiatives that need to be addressed within one to two years. The authorities have already started some of the proposed reforms. Initiatives with medium-term priority are expected to be addressed within 3 to 4 years from now. Finally, actions with long-term priorities will be completed within the next 5 to 6 years. The detailed Implementation Plan is included in Annex A.

88. **The CBM will play a leading role in coordinating with all relevant authorities, ministries and government agencies** and in the implementation and monitoring of proposed strategic activities. The proposed National Payments System Forum will be used extensively for discussions and cooperation in implementing the reforms. The CBM will evaluate the progress and outcomes regularly, through annual Progress Reports, to identify delays and potential barriers and address them in an appropriate and timely manner. Corrective measures will be proposed and the Implementation Plan will be updated. A comprehensive mid-term assessment can be conducted in 2021. The final assessment of the implementation of the NPS Development Strategy will be conducted in 2024. The CBM will submit/share annual evaluations, the mid-term and the final report to the Government.

89. **The MoPFI, other government agencies and institutions** will play important roles and have responsibilities in the implementation of the Strategy. Ministries and agencies with regulatory responsibilities in areas that are relevant to the Strategy include regulatory agencies for telecommunications, competition, consumer protection, labor and social security, among others. Other government entities that have important roles in the context of the NPSS are the Ministry of Planning, Finance and Industry, Ministry of Commerce, Ministry of Transport and Communication, Ministry of Labor Immigration and Population, Ministry of Natural Resources and Environmental Conservation and Ministry of Education.

90. The Implementation Plan assigns responsibilities to the CBM and other Government institutions (ministries, agencies and local authorities) for the timely and effective implementation of proposed actions. **Activities of the private sector will be coordinated through the NPSF** and other bilateral and multilateral forms of cooperation.

91. The necessary organizational structure within the central bank and other institutions, such as Strategy implementation management units, will be set up. Sufficient human resources will be dedicated for the implementation of the NPS reforms.

92. The funding for the implementation is expected to be allocated from the following sources: the state budget, following the process described in the Budget Law; financial supports from international and domestic organizations; investment of payment service providers, other bilateral agreements.

Annex A: Implementation Plan

The following table provides a template for the Implementation Plan for the NPS Development Strategy in Myanmar.

Component 1 – Modernizing the payment and settlement infrastructure in Myanmar

Objective #1 Have a modern, safe and efficient system for large-value and time critical payments that complies with international standards and good practices			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 1, Action I	Upgrade CBM-NET	CBM	Short term [October 2020]
Obj 1, Action II	Establish a mandatory threshold for payments to be processed through the RTGS component of CBM-NET.	CBM	Short term
Obj 1, Action III	Introduce a comprehensive Risk Management Framework in CBM-NET line with international standards.	CBM	Short term
Obj 1, Action IV	Adopt international message standards ISO20022.	CBM	Short term
Obj 1, Action V	Issue clear and comprehensive regulation/rules of CBM-NET	CBM	Short term
Obj 1, Action VI	Establish CBM-NET User Group	CBM, Participants	Short term
Obj 1, Action VII	Reduce costs of handling physical cash.	CBM, Banks	Short/Medium term
Obj 1, Action VIII	Enhance cash management by allowing all banks directly using their current account in the CBM-NET.	CBM	Medium term
Obj 1, Action IX	Encourage modernization of Core Banking System (CBS) of CBM-NET participants.	CBM, Participants	Short/Medium term

Obj 1, Action X	Implement bank branch account codes referencing with IBAN.	CBM, Banks	Short/Medium term
Obj 1, Action XI	Explore options to reduce customers' fees in using CBM-NET, including reducing customers' fees to Zero Rate for tax payments	CBM, Participants	Short term
Obj 1, Action XII	Consider expanding direct access to CBM-NET, while considering potential risks.	CBM	Short/Medium term
Obj 1, Action XIII	Publish monthly & quarterly statistics for RTGS operations.	CBM	Short term
Obj 1, Action XIV	Abolish large-value cheques.	CBM, Government, Participants	Medium term

Objective #2 Improve operational security and resilience of CBM-NET			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 2, Action I	Implement a comprehensive and well-documented framework.	CBM	Short/Medium term
Obj 2, Action II	Implement a well-developed Business Continuity Plan (BCP) & Disaster Recovery (DR) mechanisms. Require robust BCP and DR arrangements for all CBM-NET participants. Establish measurable objectives for resumption of operations and recovery of the system.	CBM, Participants	Short term
Obj 2, Action III	Implement controls for managing cyber security risk in CBM-NET.	CBM, Participants	Short term
Obj 2, Action IV	Test regularly BCP arrangements.	CBM, Participants, linked systems	Short term
Obj 2, Action V	Develop and document a crises management and communication plan with all relevant parties.	CBM, Participants, Government	Short term
Obj 2, Action VI	Regular training of CBM staff and staff of the CBM-NET members.	CBM, Participants	On-going
Obj 2, Action VII	Strengthen ICT capacity of CBM.	CBM	Short term

Objective #3 Establish efficient and interoperable retail payment systems offering a wide range of payment instruments			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 3, Action I	Implement an integrated Real Time Retail Payments system	CBM	Short term
Obj 3, Action II	Implement Myanmar Quick Response Code (MMQR)	CBM	Short term
Obj 3, Action III	Implement CBM-Net ACH	CBM	Short/Medium term
Obj 3, Action IV	Encourage timely migration to new MPU system	CBM, MPU Participants	Short term
Obj 3, Action V	Develop and enforce policies to reduce customers' and merchants' fees in card payments (such as requirements for price transparency, limits on interchange fees)	CBM	Medium term
Obj 3, Action VI	Achieve settlement in central bank money for all domestic retail payment systems	CBM, Systems Operators	Medium term
Obj 3, Action VII	Promote the implementation of efficient core banking systems of participating institutions	CBM, MPU, Participants	Medium term
Obj 3, Action VIII	Expand access to retail payment systems to include non-banks	CBM, MPU, MoPFI	Short/Medium term
Obj 3, Action IX	Implement international standards in retail payment systems	CBM, MPU, Other system operators	Short/Medium term
Obj 3, Action X	Take necessary measures to facilitate future regional integration initiatives	CBM	Short/Medium term
Obj 3, Action XI	Collect information from retail payment systems on a regular basis and publish monthly and quarterly statistics	CBM	On-going
Obj 3, Action XII	Implement/ cheque imaging system for retail cheques	CBM, Participants	Short term

Objective #4 Strengthen the management of risks in retail payment systems			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 4, Action I	Implementing regulatory framework for comprehensive risk management in retail payment systems	MPU, CBM (as part of CBM-NET upgrade), QR switch	Short term
Obj 4, Action II	Regularly test BCP/DR arrangements of CBM operated retail payment systems. See also # Objective 2.4	CBM, Participants	Short/Medium term
Obj 4, Action III	Establish and regularly test BCPDR site and crises communication plan for MPU operated system	MPU, Participants	Short/Medium term
Obj 4, Action IV	Establish risk management requirements for other retail payment systems	CBM	Short/Medium term
Obj 4, Action V	Adopt measures for managing cyber security risk in retail payment systems (CBM operated, MPU, other systems)	CBM, MPU, Participants, Other operators	Short/Medium term
Obj 4, Action VI	Establish regular and ad-hoc reporting of operational incidents, including reporting on cyber-attacks	CBM, MPU, Other operators	Short term

Objective # 5 Have sound systems and regulatory framework for safekeeping, clearing and settlement of securities			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 5, Action I	Implement a fully automated SSS and CSD for government securities as part of CBM-NET	CBM, MoPFI Participants	Short/Medium term
Obj 5, Action II	Encourage banks to use the CBM secondary market platform	CBM, SECM, YSX	Short/Medium term
Obj 5, Action III	Review and update rules and regulations for repo transactions and other operations involving securities	CBM	Short term
Obj 5, Action IV	Assess regularly the SSSs/CSDs against the PFMLs	CBM, SECM	
Obj 5, Action V	Assess options for settlement of securities transactions traded at YSX in central bank money (in the upgraded CBM-NET system) on DVP basis	CBM, SECM	Medium/Long term

Obj 5, Action VI	Develop arrangements for using the SSS/CSDs for the book-keeping, clearing and settlement of transactions with government securities by individuals	SECM, CBM, Participants	Medium term
Obj 5, Action VII	Review the legal and regulatory framework for safekeeping, clearing and settlement of securities	SECM, CBM	Medium term

Objective #6 Develop the infrastructure supporting interbank money markets			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 6, Action I	Implement an automated multifunctional trading platform for interbank money market trades linked to CBM-NET	CBM	Short/Medium term
Obj 6, Action II	Review relevant interbank money market regulations	CBM	Medium term

Objective # 7 Improve systems and management of settlement risks in FX market transactions			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 7, Action I	Implement an automated system for Interbank FX Trades, linked with CBM-NET for MMK Settlement	CBM, Participants	Medium/Long term
Obj 7, Action II	Explore costs and benefits of establishing domestic arrangements for the settlement of foreign currencies (USD) in FX trades in order to ensure PvP settlement	CBM	Medium/Long term

Component 2 – Strengthening the institutional framework for payments, clearing, and settlement

Objective # 8 Have a comprehensive and sound legal and regulatory framework for payments			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 8, Action I	Review the legal and regulatory framework for electronic payments	CBM, MoPFI, Participants	Short/Medium term
Obj 8, Action II	Issue NPS Oversight Regulation to regulate provision of payment services and operation of payment systems	CBM	Short term
Obj 8, Action III	Review and strengthen regulation of agents in provision of payment services	CBM	Short term
Obj 8, Action IV	Issue a Regulation on e-money	CBM	Short term
Obj 8, Action V	Adopt regulation(s) on various electronic payment instruments, such as Electronic Fund Transfers (EFT) and payment cards	CBM	Short/Medium term
Obj 8, Action VI	Review and amend existing legal framework and adopt new legislation in the payment aspects of e-commerce transactions	CBM, MoPFI, Other ministries	Short/Medium term
Obj 8, Action VII	Issue technical & security standards/Guidelines for retail payment providers	CBM	Short term
Obj 8, Action VIII	Gradually remove remaining restrictions for foreign-owned entities to provide payment services.	CBM, Government	Medium term
Obj 8, Action IX	Assess the need to introduce a National Payments Systems law	CBM, other authorities	Medium/Long term
Obj 8, Action X	Review and amend the regulations and rules of the existing and planned systems (CBM-NET, RTRP, MPU)	CBM	Short/Medium term
Obj 8, Action XI	Issue regulation/ rules on cheque truncations.	CBM	Short/Medium term
Obj 8, Action XII	Review and enhance the legal and regulatory framework for securities clearing and settlement (both CBM-NET CSD and YSX CSD)	CBM, SECM	Medium term
Obj 8, Action XIII	Enhance the legal and regulatory framework for government securities	Government, CBM, SECM	Medium term
Obj 8, Action XIV	Strengthen legal capacity of CBM in the area of payments	CBM	Short term

Objective # 9 Establish an effective oversight of the National Payments System			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 9, Action I	Develop CBM powers and responsibilities regarding the oversight of the NPS	CBM	Short term
Obj 9, Action II	Develop CBM Payment Oversight Policy Framework	CBM	Short term
Obj 9, Action III	Develop and document responsibilities and reporting lines of the separated Payment Systems Oversight unit within the CBM payment department	CBM	Short term
Obj 9, Action IV	Establish detailed oversight procedures and activities. Develop payment system oversight manual	CBM	Short term
Obj 9, Action V	Consider establishing a high-level payment system committee within the CBM	CBM	Medium term
Obj 9, Action VI	Provide capacity building and training program for payment oversight	CBM	Short term and on-going training
Obj 9, Action VII	Publish Oversight Policy Framework, information and statistics on overseen payment systems, instruments and services	CBM	On-going
Obj 9, Action VIII	Issue annual Payment Oversight report	CBM	Medium term

Objective #10 Implement international standards for the overseen systems			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 10, Action I	Develop oversight standards for payment and settlement systems	CBM	Short term
Obj 10, Action II	Adopt CPMI-IOSCO PFMI for systemically important systems	CBM	Short term
Obj 10, Action III	Define oversight standards for retail payment systems and payment instruments	CBM	Short/Medium term
Obj 10, Action IV	Conduct regular assessment of the designated payment and settlement systems, including CBM operated systems	CBM, SECM	On-going
Obj 10, Action V	Designated oversee system to publish Disclosure Framework	CBM, MPU, Other systems	On-going

Objective #11 Establish efficient cooperative arrangements among authorities and with the payments industry			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 11, Action I	Establish inter-institution committee between the regulatory authorities	CBM, Other regulators	Short term
Obj 11, Action II	Share regularly information on systemically important FMIs	CBM, SECM	On-going
Obj 11, Action III	Establish efficient mechanism for cooperation between CBM and FRD on payment related issues	CBM, FRD (MoPFI)	Short term
Obj 11, Action IV	Implement bilateral and multilateral agreements with regulators in other countries for cross-border payment activities	CBM	On-going
Obj 11, Action V	Establish a National Payments System Forum (NPSF) for cooperation between the authorities and the private sector	CBM, MoPFI, MPU, Banks, Non-bank payment service providers	Short/Medium term

Component 3 – Implementing payment instruments and services that effectively reduce the use of cash in the Myanmar economy

Objective #12 Increase the usage of electronic payments instruments			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 12, Action I	Introduce cashless payment instrument through government programs. Reduce the use of cheques.	CBM, MoPFI	Short/Medium term
Obj 12, Action II	Promote arrangements and services that leverage the upgraded retail payment systems (CBM-NET, RTRP, MPU)	CBM, MPU, Participants, Government agencies, Banks and Payment service providers	Short term

Obj 12, Action III	Promote policies and incentives for financial institutions (such as pricing policy) to expand POS and ATM network, including penetration to rural areas	CBM, Payment service providers	Short/Medium term
Obj 12, Action IV	Promote new types of access channels, instruments and FinTech products	CBM, Government	On-going
Obj 12, Action V	Encourage transparent and fair pricing of various payment instruments, including cheques, payment cards and electronic fund transfers	CBM	On-going
Obj 12, Action VI	Foster cooperation between all stakeholders. Establish payment core group (sub-group of the NPSF on Retail payments) for cooperation among banks, CBM, Government, MPU, international card schemes, E-money providers, aggregators, payment platform operators. See Objective # 11 Action 5	CBM, Government, Other stakeholders	Short term/On-going
Obj 12, Action VII	Conduct research on the latest FinTech developments in payment services	CBM, Other government agencies	On-going
Obj 12, Action VIII	Support the capacity building in retail payments and FinTech across the PSPs	CBM	Short/Medium term
Obj 12, Action IX	Review of legal and regulatory framework supporting e-commerce (See Objective # 8.6)	CBM, Government	Short/Medium term
Obj 12, Action X	Explore the options of leveraging the Post office network for disbursement of social benefit transfers	CBM, Myanmar Post, Participants	Medium term

Objective #13 Promote standardization and interoperability			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 13, Action I	Foster interoperability	CBM, Participants	On-going
Obj 13, Action II	Establish minimum security standards for payment cards and other payment instruments	CBM	Short term priority
Obj 13, Action III	Migrate to EMV compliant cards	CBM, Participants	Medium term
Obj 13, Action IV	Implement National Standard of Myanmar QR code (MMQR)	CBM, Participants	Short term
Obj 13, Action V	Implement standardized bank branch account codes referencing with IBAN	CBM, Participants	Short term
Obj 13, Action VI	Allow access of non-banks (e-money issuers) to retail payment infrastructure (MPU, QR switch) to promote interoperability	CBM, MPU, QR Switch	Short term

Obj 13, Action VII	Introduce unique national identification number/measures for Myanmar citizens	Ministry of Labor, Immigration and Population	Medium term
Obj 13, Action VIII	Strengthen dispute resolution mechanisms in retail payments	CBM	Short/Medium term priority
Obj 13, Action IX	Publish regularly statistics on the usage of various payment instruments	CBM	Short term priority

Objective #14 Promote financial inclusion			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 14, Action I	Foster the financial inclusion	CBM	Short/Medium term
Obj 14, Action II	Develop a robust, safe, efficient and reachable payment infrastructure	CBM	Short/Medium term
Obj 14, Action III	Increase the access points to payment services	CBM, PSPs	Short/Medium term
Obj 14, Action IV	Increase the access to electronic payment services	CBM, Government	Short/Medium term
Obj 14, Action V	Implement initiatives to increase access to basic transaction accounts	CBM, Government, PSPs	Short/Medium term
Obj 14, Action VI	Increase access points in areas with large unbanked population	CBM, Banks, PSPs	Short/Medium term
Obj 14, Action VII	Encourage the development of business models (including agent-based models) tailored for unbanked population	CBM, Government, PSPs	Medium term
Obj 14, Action VIII	Leverage salary payments, utility bill payments, government payments and remittances to promote the use of transaction accounts	Government, Banks, PSPs, CBM	Medium term
See also Objective #1 to #4, #8, #12 and #16			

Objective #15 Increase awareness of electronic payments			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 15, Action I	Enhance financial education programs to increase awareness of electronic payment (both consumer & business sides)	CBM, Government, Banks, Other PSPs	Short/Medium term priority
Obj 15, Action II	Improve cooperation and partnership between the public and the private sector. Leverage programs of international donors.	CBM, Other stakeholders	Short term
Obj 15, Action III	Implement educational campaign for individuals, merchants and banks on the benefits and use of MMQR	CBM, Banks, Other PSPs	Short term
Obj 15, Action IV	Promote specialized mass awareness campaigns, workshops and seminars targeting women, people in rural areas, and senior citizens	Government, Local governments, Banks, Other PSPs	On-going
Obj 15, Action V	Design and implement dedicated awareness program for pensioners (former government employees)	Pension Department (MoPFI)	Medium term
Obj 15, Action VI	Develop and implement educational programs for local government employees	Government, Local Governments, Banks, PSPs	Medium term
Obj 15, Action VII	Encourage private sector awareness initiatives	Government, CBM, PSPs	Short/Medium term
Obj 15, Action VIII	Increase the public's awareness of the NPS strategy	CBM, Government, Banks, Other PSPs	Short term

Objective # 16 Migrate all government payments to the extent possible to electronic payment			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 16, Action I	Develop electronic payments arrangements for payment of wages of all government employees. Reduce cash and cheques in government payments	Government, CBM, Local Governments	Medium term
Obj 16, Action II	Establish an automated centralized financial management information system in the MoPFI	MoPFI	Short/Medium term

Obj 16, Action III	Implement arrangements for leveraging the upgraded CBM-NET and MPU for government payments	CBM, MoPFI	Short term
Obj 16, Action IV	Promote FinTech solutions, innovative instruments, and new business models for disbursement of social benefits	MoPFI, Ministry of Social Welfare, Relief and Resettlement, Ministry of Health and Sports, Ministry of Education, Ministry of Labor, Immigration and Population,	Medium term
Obj 16, Action V	Ensure timely completion of the MEB automated internal system, and link with the MoPFI financial management system	Ministry of Planning, Finance and Industry	Short term
Obj 16, Action VI	Automate payment processes in all government agencies and ministries		Medium term
Obj 16, Action VII	Review and update internal documents, and regulations/rules regarding payments	CBM	Short/Medium term
Obj 16, Action VIII	Implement Digitalized Record Keeping System at the MoPFI and electronic payments for distribution of pensions	MoPFI, MEB, Banks	Medium/Long term
Obj 16, Action IX	Consider establishing e-payment gateway for online payments to the government (P2G, B2G payments)	MoPFI, Myanmar Tax Office, Banks, Non-bank, PSPs	Short/Medium term
Obj 16, Action X	Consider expanding the range of banks and non-bank financial institutions for government disbursements and revenue collection	MoPFI, CBM	Medium/Long term
Obj 16, Action XI	Explore options and implement mechanisms for cashless payments in mass transit systems	Ministry of Transportation and Communications, Ministry of Commerce, PSPs	Medium term
Obj 16, Action XII	Encourage utility bill payments through electronic payment instruments	MoPFI	Medium term

Objective #17 Improve transparency and consumer protection in the international remittance services			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 17, Action I	Strengthen the legal and regulatory framework for international remittances. Allow non-banks to disburse remittances.	CBM	Medium term
Obj 17, Action II	Improve regulations to avoid any ambiguity or lack of clarity regarding which entities can provide remittance services	CBM	Medium term
Obj 17, Action III	Establish clear requirements for transparency, information disclosure, and the protection of consumers of remittance services	CBM	Short/Medium term
Obj 17, Action IV	Improve the quantity and quality of statistics related to remittances	CBM, Relevant ministries	Medium term
Obj 17, Action V	Implement robust AML/CFT measures and practices in international remittance services	CBM	Short/Medium term

Objective #18 Improve efficiency in international remittance services			
Objective and Action Number	Action description	Responsible institution(s)	Priority and [Timeline]
Obj 18, Action I	Allow more efficient exchange among banks and other system participants	CBM, FIs, NFIs, Participants	Short/Medium term
Obj 18, Action II	Promote the development of payment schemes based on innovative products	CBM	Short/Medium term
Obj 18, Action III	Encourage banks (and non-banks) /create incentives for banks to develop specialized products and services for cross-border remittances	CBM	Short/Medium term
Obj 18, Action IV	Initiate policy dialogue with the regulators of remittance sending countries (e.g. Malaysia, Singapore, and Thailand) to discuss solutions for remittance flows through formal channels	CBM	Short term
Obj 18, Action V	Exploit the national post office network as disbursement platform	CBM, Ministry of Transportation and Telecommunication	Medium term

Obj 18, Action VI	Develop and implement dedicated financial education programs for migrants and their families	Relevant ministries	Short term
Obj 18, Action VII	Establish a sub-group of the NPSF among public authorities on a policy and implementation level to ensure that an appropriate, coherent, and coordinated policy framework is in place regarding remittance services	CBM, Government, PSPs	Short/Medium term priority

Annex B: Objectives

OBJECTIVE # 1: HAVE A MODERN, SAFE AND EFFICIENT SYSTEM FOR LARGE-VALUE AND TIME CRITICAL PAYMENTS THAT COMPLIES WITH INTERNATIONAL STANDARDS AND GOOD PRACTICES.....	23
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Annex C: CPMI General Guidance for Payment System Development

A. Banking system

Guideline 1. Keep the central bank at the center: due to its overall responsibility for a sound currency, the central bank has a central role in the development of the use of money as an effective means of payment.

Guideline 2. Promote the role of a sound banking system: payment accounts, instruments and services available to end users are provided by banks and other similar financial institutions, which compete individually but often need to act cooperatively as a system.

B. Planning

Guideline 3. Recognize complexity: planning should be based on a comprehensive understanding of all the core elements of the national payment system and the principal factors influencing its development.

Guideline 4. Focus on needs: identify, and be guided by, the payment needs of all users in the national payment system and by the capabilities of the economy.

Guideline 5. Set clear priorities: plan and prioritize development of the national payment system strategically.

Guideline 6. Implementation is key: ensure effective implementation of the strategic plan.

C. Institutional framework

Guideline 7. Promote market development: the expansion and strengthening of market arrangements for payment services are key aspects of the evolution of the national payment system.

Guideline 8. Involve relevant stakeholders: encourage the development of effective consultation among relevant stakeholders in the national payment system.

Guideline 9. Collaborate for effective oversight: effective payment system oversight by the central bank often requires collaborative arrangements with other authorities.

Guideline 10. Promote legal certainty: develop a transparent, comprehensive and sound legal framework for the national payment system.

D. Infrastructures

Guideline 11. Expand availability of retail payment services: extend the availability and choice of efficient and secure non-cash payment instruments and services available to consumers, businesses and government by expanding and improving retail payment infrastructures.

Guideline 12. Let the business case guide the large value payment system: develop a large value payment system based primarily on the needs of financial markets and the growth in time-critical interbank payments.

Guideline 13. Align development of payment and securities systems: coordinate the development of securities and large value payment systems for safety and efficiency in the financial system.

Guideline 14. Coordinate settlement of retail, large value and securities systems: the settlement processes for the core systems should be operationally coordinated to efficiently manage the interrelated liquidity needs and settlement risks among them.

Annex D: Indicators for measuring NPS development³⁰

<i>Indicator</i>	<i>Explanation</i>
<i>Access points</i>	This includes metrics such as ATMs and POS terminals per 100,000 inhabitants, number of bank branches per 1000 adults, number of agents, and number of merchants accepting payments with QR codes.
<i>Access points: Outreach</i>	This set of metrics helps in assessing the penetration of payment instruments and access channels. Metrics as described above are developed for specific geographic areas (region, urban <i>versus</i> rural, etc.)
<i>Payment instruments</i>	This includes metrics such as number of credit and debit cards per capita, share of account holders subscribed to Internet banking and/or mobile banking, and number of e-money accounts
<i>Payment instruments: Outreach</i>	The same as above for specific geographic areas (region, urban <i>versus</i> rural, etc.).
<i>Usage of payment instruments</i>	This includes metrics such as number and value of transactions at POS terminals, ATMs, cash withdrawals at ATMs, transactions with credit <i>versus</i> debit cards, share of account holders that use Internet banking and/or mobile banking at least once every month, number and value of transactions with e-money, and number of holders of e-money accounts that make payments through such accounts at least once a month, share of electronic payments <i>versus</i> cash.
<i>Usage of payment instruments: Outreach</i>	The same as above for specific geographic areas (region, urban <i>versus</i> rural, etc.).
<i>Customers' expenditure</i>	This variable aims at measuring the evolution of consumer fees/total expenses made with credit transfers, direct debit transfers, payment cards (debit and credit), and other cashless payment instruments.

³⁰ See World Bank Indicators for measuring NPS development.

Annex E: CPMI-IOSCO Principles for Financial Market Infrastructures

General organization

Principle 1: Legal basis

An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

Principle 2: Governance

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

Principle 3: Framework for the comprehensive management of risks

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

Credit and liquidity risk management

Principle 4: Credit risk

An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.

Principle 5: Collateral

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Principle 6: Margin

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

Principle 7: Liquidity risk

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

Settlement

Principle 8: Settlement finality

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

Principle 9: Money settlements

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimize and strictly control the credit and liquidity risk arising from the use of commercial bank money.

Principle 10: Physical deliveries

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

Central securities depositories and exchange-of-value settlement systems**Principle 11: Central securities depositories**

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimize and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilized or dematerialized form for their transfer by book entry.

Principle 12: Exchange-of-value settlement systems

If an FMI settles transaction that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

Default management**Principle 13: Participant-default rules and procedures**

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

Principle 14: Segregation and portability

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

General business and operational risk management**Principle 15: General business risk**

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialize. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

Principle 16: Custody and investment risks

An FMI should safeguard its own and its participants' assets and minimize the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

Principle 17: Operational risk

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfillment of the FMI's obligations, including in the event of a wide-scale or major disruption.

Access

Principle 18: Access and participation requirements

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

Principle 19: Tiered participation arrangements

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

Principle 20: FMI links

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.

Efficiency

Principle 21: Efficiency and effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Principle 22: Communication procedures and standards

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

Transparency

Principle 23: Disclosure of rules, key procedures, and market data

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.

Principle 24: Disclosure of market data by trade repositories

A TR should provide timely and accurate data to relevant authorities and the public in line with their respective needs.

Responsibilities of central banks, market regulators, and other relevant authorities for financial market infrastructures

Responsibility A: Regulation, supervision, and oversight of FMIs

FMIs should be subject to appropriate and effective regulation, supervision, and oversight by a central bank, market regulator, or other relevant authority.

Responsibility B: Regulatory, supervisory, and oversight powers and resources

Central banks, market regulators, and other relevant authorities should have the powers and resources to carry out effectively their responsibilities in regulating, supervising, and overseeing FMIs.

Responsibility C: Disclosure of objectives and policies with respect to FMIs

Central banks, market regulators, and other relevant authorities should clearly define and disclose their regulatory, supervisory, and oversight policies with respect to FMIs.

Responsibility D: Application of principles for FMIs

Central banks, market regulators, and other relevant authorities should adopt, where relevant, internationally accepted principles for FMIs and apply them consistently.

Responsibility E: Cooperation with other authorities

Central banks, market regulators, and other relevant authorities should cooperate with each other, both domestically and internationally, as appropriate, in promoting the safety and efficiency of FMIs.

Annex F: CPMI General Principles for Effective Oversight

1. Central banks should set out publicly their oversight policies, including the policy requirements or standards for systems and the criteria for determining which systems these apply to
2. Central banks should adopt, where relevant, internationally recognized standards for payment and settlement systems
3. Central banks should have the powers and capacity to carry out their oversight responsibilities effectively
4. Oversight standards should be applied consistently to comparable payment and settlement systems, including systems operated by the central bank
5. Central banks, in promoting the safety and efficiency of payment and settlement systems, should cooperate with other relevant central banks and authorities

Annex G: World Bank Guidelines for Developing a Comprehensive Retail Payment Strategy

The World Bank has developed a framework for countries to use in developing a comprehensive retail payments strategy. This framework has been developed by synthesizing the past studies of the World Bank, the CPMI, and other international and national bodies, as well as the world-wide experience of the World Bank in supporting payment systems reforms in over 100 countries.

This framework builds a case for expanding the range of public policy goals with respect to retail payments from the general overarching goals with respect to National Payments Systems. The minimum list of public policy goals advocated is:

- Promote affordability and ease of access to payment services;
- Promote development of efficient infrastructure to support development of payment instruments and mechanisms to meet retail payment needs;
- Promote socially optimal usage of payment instruments.

To achieve these public policy objectives the following guidelines have been advocated:

Guideline I: The market for retail payments should be transparent, have adequate protection of payers and payees' interests and be cost-effective.

Guideline II: Retail payments require certain underlying financial, communications and other types of infrastructure; these infrastructures should be put in place to increase the efficiency of retail payments. These infrastructures include inter-bank electronic funds transfer system, inter-bank card payment platform, credit bureaus, data sharing platforms, large value inter-bank gross settlement systems, availability of reliable communications infrastructure and also national identification infrastructure.

Guideline III: Retail payments should be supported by a sound, predictable, non-discriminate and proportionate legal and regulatory framework.

Guideline IV: Competitive market conditions should be fostered in the retail payments industry, with an appropriate balance between co-operation and competition.

Guideline V: Retail payments should be supported by appropriate governance and risk management practices.

Guideline VI: Public authorities should exercise effective oversight over the retail payments market and consider direct interventions where appropriate.

Annex H: CPMI-World Bank General Guidance for Payment Aspects of Financial Inclusion

Guiding principle 1: Public and private sector commitment

Commitment from public and private sector organizations to broaden financial inclusion is explicit, strong and sustained over time.

Guiding principle 2: Legal and regulatory framework

The legal and regulatory framework underpins financial inclusion by effectively addressing all relevant risks and by protecting consumers, while at the same time fostering innovation and competition.

Guiding principle 3: Financial and ICT infrastructures

Robust, safe, efficient and widely reachable financial and ICT infrastructures are effective for the provision of transaction accounts services, and also support the provision of broader financial services.

Guiding principle 4: Transaction account and payment product design

The transaction account and payment product offerings effectively meet a broad range of transaction needs of the target population, at little or no cost.

Guiding principle 5: Readily available access points

The usefulness of transaction accounts is augmented with a broad network of access points that also achieves wide geographical coverage, and by offering a variety of interoperable access channels.

Guiding principle 6: Awareness and financial literacy

Individuals gain knowledge, through awareness and financial literacy efforts, of the benefits of adopting transaction accounts, how to use those accounts effectively for payment and store-of-value purposes, and how to access other financial services.

Guiding principle 7: Large-volume, recurrent payment streams

Large-volume and recurrent payment streams, including remittances, are leveraged to advance financial inclusion objectives, namely by increasing the number of transaction accounts and stimulating the frequent usage of these accounts.

Annex I: CPMI-World Bank General Principles for International Remittance Services

The general principles are aimed at the public policy objectives of achieving safe and efficient international remittance services. To this end, the markets for the services should be contestable, transparent, accessible and sound.

Transparency and consumer protection

General Principle 1. The market for remittance services should be transparent and have adequate consumer protection.

Payment system infrastructure

General Principle 2. Improvements to payment system infrastructure that have the potential to increase the efficiency of remittance services should be encouraged.

Legal and regulatory environment

General Principle 3. Remittance services should be supported by a sound, predictable, non-discriminatory and proportionate legal and regulatory framework in relevant jurisdictions.

Market structure and competition

General Principle 4. Competitive market conditions, including appropriate access to domestic payments infrastructures, should be fostered in the remittance industry.

Governance and risk management

General Principle 5. Remittance services should be supported by appropriate governance and risk management practices.

ROLES OF REMITTANCE SERVICE PROVIDERS AND PUBLIC AUTHORITIES

A. The role of remittance service providers. Remittance service providers should participate actively in the implementation of the general principles.

B. The role of public authorities. Public authorities should evaluate what action to take to achieve the public policy objectives through implementation of the general principles.

