

**IMPACT OF THE DIGITALISATION OF FINANCIAL SERVICES ON SUPERVISORY
PRACTICES IN THE PRIVATE PENSION SECTOR**

CASE STUDY: HONG KONG, CHINA

**Use of Digital Technology to Facilitate Administration and Supervision of Mandatory Provident
Fund Schemes in Hong Kong, China**

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USE OF DIGITAL TECHNOLOGY TO FACILITATE ADMINISTRATION AND SUPERVISION OF MANDATORY PROVIDENT FUND SCHEMES IN HONG KONG, CHINA

I. Overview of the MPF System

1. The MPF System is a defined contribution, mandatory, employment-based, privately-managed and fully-funded system. All employees and self-employed persons (SEPs) aged 18 to 64, except for exempt persons, are required to join an MPF scheme. Established in 1998, the Mandatory Provident Fund Schemes Authority (MPFA) is the regulator of the MPF System.

2. The MPF System adopts a decentralised administration model. MPF schemes are offered and managed by trustees. Each trustee operates its own scheme administration system that is independent from others. Under the MPF System, employers choose schemes offered by trustees and employees choose funds from the scheme(s). As at end March 2018, there were a total of 17 trustees (of which 14 were active trustees), 32 schemes and 469 funds.

II. Objectives of Digital Initiatives Undertaken by the MPFA

3. The administration of the MPF System involves a large volume of transactions, which includes handling monthly collection of numerous contributions, following up default contributions and payout of benefits on eligible grounds. According to the consultancy study conducted in 2012, there were more than 30 million transactions yearly, and about two-thirds involved some degree of paper-based transactions or manual processing.

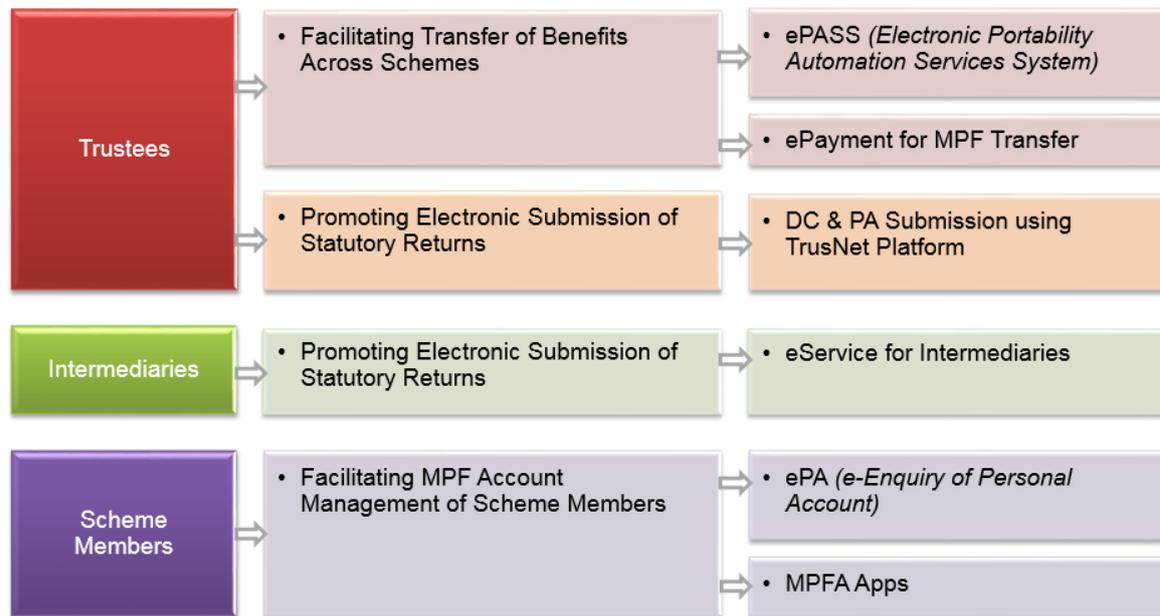
4. Over the years, the MPFA has introduced different digital initiatives, including the Electronic Portability Automation Services System (ePASS), the E-Payment for MPF Transfer, the Default Contribution (DC) and Personal Account (PA) Submission using TrusNet¹ Platform, the eService for Intermediaries, MPFA Mobile Apps and the e-Enquiry of Personal Account (ePA). These digital initiatives aim to:

- enhance operational and cost efficiency of the MPF System;
- improve accuracy and reliability of processes and transactions;
- facilitate supervision of trustees and other service providers; and
- strengthen the knowledge and engagement of scheme members.

5. Each of these digital initiatives has one or more specific target groups. In respect of trustees, the ePASS and E-Payment were introduced to facilitate transfer of benefits across schemes, while DC and PA Submissions using TrusNet Platform were launched to promote electronic submission of statutory returns by trustees. In respect of MPF intermediaries, eService for Intermediaries was launched to promote electronic submission of statutory returns and payment by them. In respect of scheme members, the MPFA Mobile Apps and ePA aim to facilitate their management of MPF accounts.

¹ The TrusNet is a secured private network platform connecting the MPFA and trustees.

Target Groups of MPFA's Major Digital Initiatives



III. MPFA's Digital Initiatives in a Nutshell

A. Digital Initiatives to Facilitate Transfer of Benefits across Schemes

6. Under the MPF System, scheme members have the right to transfer benefits from one scheme to another under certain circumstances (MPF transfer). There are around 600,000 transfers a year. The processing of transfer requests used to be primarily manual, requiring substantial bureaucratic resources and lengthy oversight by trustees. Transfer payment was also made by paper cheque.

Electronic Portability Automation Services System (ePASS)

7. The ePASS was launched in 2012 to facilitate transfers of benefits across schemes with the following objectives:

- streamlining MPF transfer processes by electronic data transmission between trustees;
- enhancing accuracy and control;
- enhancing the customer experience by shortening the processing time; and
- improving information management (e.g. facilitating analysis and monitoring).

8. Building on the infrastructure of the TrusNet, a secured private network platform connecting the MPFA and individual trustees, the ePASS performs the following functions:

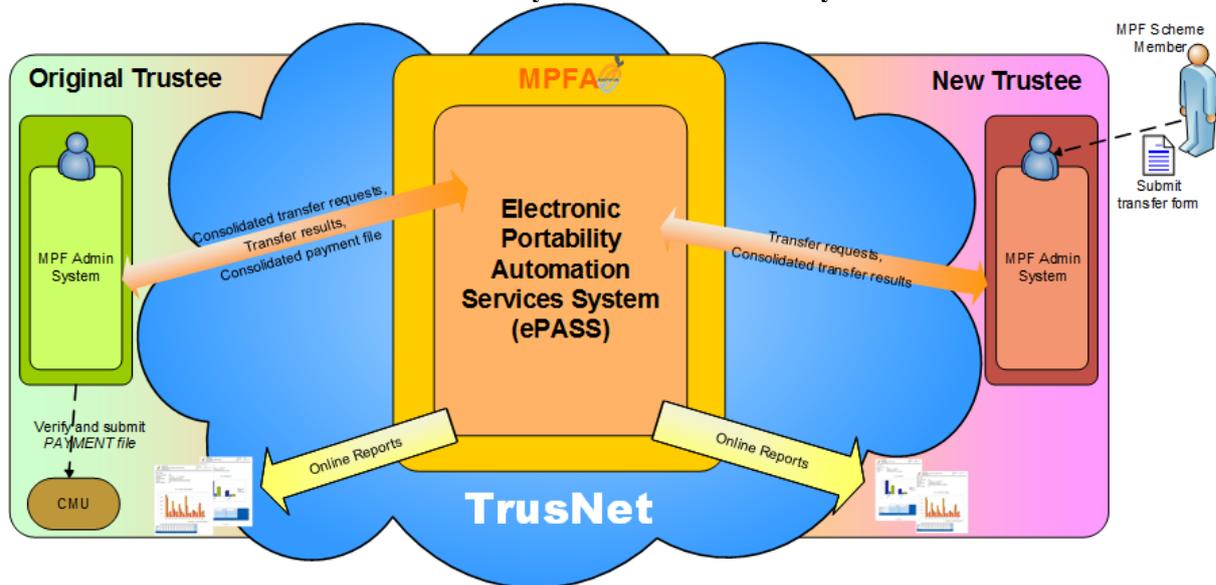
- collecting the data of a member's election for MPF transfer from the new trustee (i.e. the trustee who will receive the transfer proceeds of the member) and delivering the data to the original trustee (i.e. the trustee who will pay out the transfer proceeds);
- collecting the reply data from the original trustee and delivering the data to the new trustee; and

- providing management information to trustees regarding usage of the ePASS.

9. A scheme member who wants to make a MPF transfer has to submit a transfer application form to the new trustee. After the launch of the ePass, upon receiving the transfer application form, the new trustee transmits the request to the original trustee via the ePASS. The original trustee then checks the information and redeems the fund units for the scheme member. After the completion of the fund redemption process, the original trustee informs the new trustee of acceptance of the transfer application and the transfer amount via the ePASS. The new trustee buys fund units according to the scheme member's instructions upon receiving the transfer payment. The ePASS has contributed to shortening the average processing time to three to four weeks, compared to the original estimate of six to eight weeks.

10. The ePASS won the FutureGov Award 2013 (in the Government Cloud category), an information technology award for the public sector in the Asia-Pacific region, in recognition of the deployment of Cloud computing technology.

Electronic Portability Automatic Services System



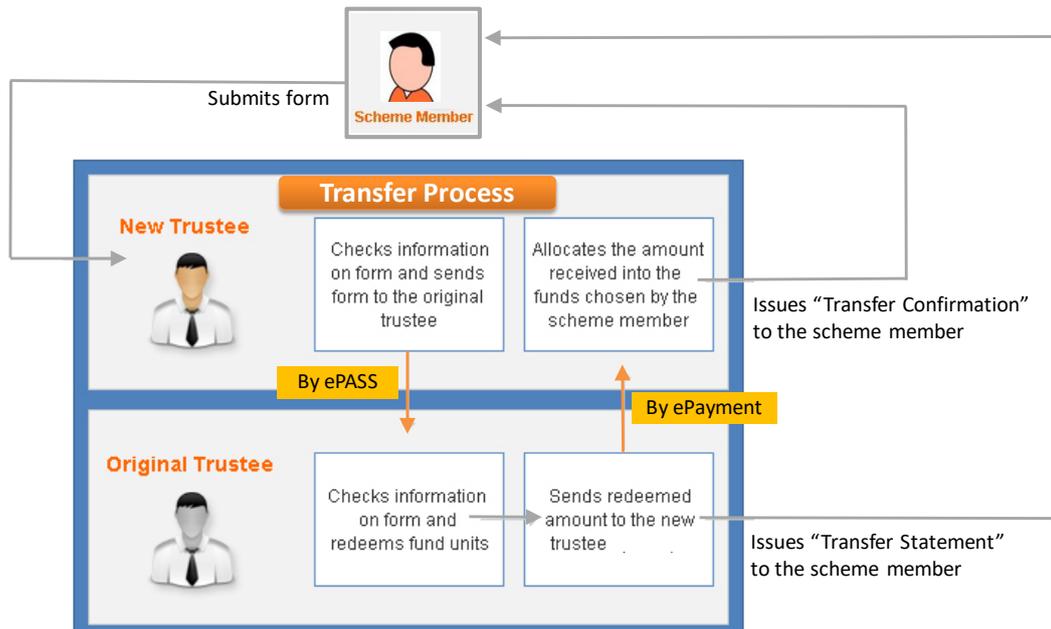
E-Payment for MPF Transfer

11. As a connected function to the ePASS, the E-Payment for MPF Transfer facilitates electronic payment of MPF transfer between trustees. The E-Payment was launched in 2014. It helps further shorten the processing time of payment transfer by about one week, saving the costs of trustees handling payments by paper cheque (i.e. issuing cheques, mailing and verifying cheque details), and reducing the out-of-market risk of members during the transfer of benefits.

12. The E-Payment for MPF Transfer makes use of the Hong Kong Monetary Authority (HKMA)'s Central Money Markets Unit (CMU) to automate payments for transfer of benefits between trustees.

13. With both ePASS and E-Payment in place, on average, the overall processing time of transfer of benefits has shortened to about two to three weeks.

E-Payment for MPF Transfer



B. Digital Initiatives to Promote Electronic Submission of Statutory Returns

14. For various purposes, trustees and intermediaries are required to submit regular and ad hoc returns to the MPFA. Promoting electronic submission of returns is an important initiative to achieve cost efficiency, and ensure the timeliness and accuracy of data.

DC & PA Submission using TrusNet Platform

15. This digital initiative enables trustees to perform electronic data submissions to the MPFA regarding the notice of default contribution (DC) of employers and SEPs and information of new, updated and terminated personal accounts (PAs)². Its major objectives are as follows:-

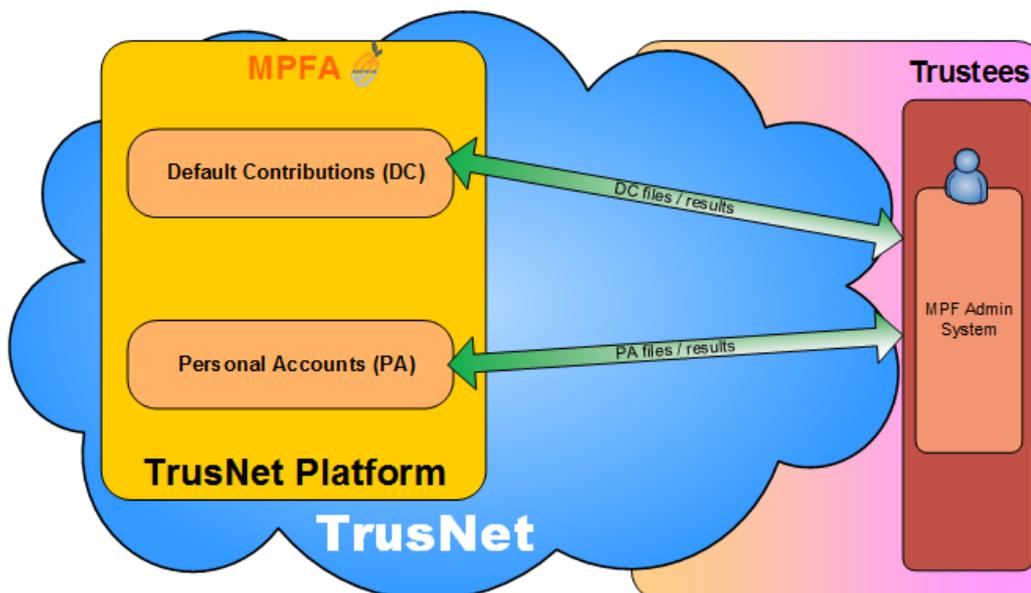
- to automate and streamline the workflow for operational efficiency;
- to standardise data submission in a prescribed format via a dedicated platform; and
- to enhance control, accuracy, security and timeliness of submissions from trustees.

16. Under the MPF legislation, if an employer or a SEP fails to pay mandatory contributions in full to the trustee by the contribution day (i.e. default contribution), the trustee has to submit a written notice to the MPFA within 10 days of that contribution day. The trustee also has to report the new, updated and terminated PAs on a monthly basis and a comprehensive list of PA holders to the MPFA annually. Before the DC & PA Submission, trustees delivered the data manually via email or diskettes, and the MPFA needed to save the data to MPFA's systems manually and perform back-end validation. With the launch of this digital initiative, trustees submit the required information to the MPFA electronically in a standardised

² When a scheme member changes job, a personal account will be created to hold the accrued benefits accumulated by the scheme member during his/her former employment unless the member elects to transfer such accrued benefits to be held under the contribution account of his/her new job.

and prescribed format using the TrusNet Platform, and they will be automatically validated and uploaded to MPFA's systems.

DC and PA Submission using TrusNet Platform



eService for Intermediaries

17. Under the MPF System, there are two types of MPF intermediaries:-

- Principal intermediary (PI) – a business entity registered by the MPFA as an intermediary for carrying on regulated activities; and
- Subsidiary intermediary (SI) – a person registered by the MPFA as an intermediary for carrying on regulated activities on behalf of the PI.

As at end March 2018, there were 411 registered PIs and 32 369 registered SIs.

18. PIs are required to submit an annual return on business information (e.g. names of schemes marketed and statistics on MPF transactions) and a quarterly return on complaints to the MPFA, while SIs need to submit an annual return relating to their continuing professional development activities. Both PIs and SIs are required to make annual fee payments to the MPFA.

19. The eService for Intermediaries was launched to facilitate prompt and accurate submission of returns and payments to the MPFA. It allows PIs and SIs to perform online the submission of returns through the MPFA's website (for PIs and SIs) and mobile apps (for SIs only). It also allows them to make annual fee payments electronically (by e-Cheque via MPFA's e-Cheque Collection Portal; PPS, a popular means of electronic payment in Hong Kong, China; or credit card, to be available in the second half of 2018). PIs and SIs can also view their registration information via eService for Intermediaries.

C. Digital Initiatives to Facilitate Account Management by Scheme Members

20. Similar to many other mandatory, private pension systems, member engagement is a key issue in the MPF System. Digital initiatives have been introduced by the MPFA to “nudge” scheme members to take care of their MPF investments and accounts.

e-Enquiry of Personal Account (ePA)

21. Under the MPF System, when a scheme member changes job and if he/she does not bring along with him/her to the new job the MPF accrued benefits accumulated by him/her during his/her former employment, a PA will be created to hold those benefits.

22. Over time, many scheme members have maintained more than one PA with different trustees. The ePA includes an electronic platform available on the MPFA's website and a mobile app to provide an easily accessible channel for schemes members to look up their PAs at any time anywhere. It also facilitates scheme members' consolidation of PAs and provides other useful information for scheme members to manage their accounts (e.g. MPF news, trustee contact list, fees of funds and default investment strategy fund list (both available in MPFA mobile app only).

23. Scheme members can fill in an online application form available on the MPFA's ePA website or MPFA mobile app to apply for the ePA service. The application for ePA service is a one-time process. Scheme members once successfully applied to become ePA users will enjoy lifetime service. Scheme members may look up their own PAs via ePA. The MPFA may also issue email notifications to scheme members on the latest report of their PAs.

MPFA Mobile Apps

24. In tandem with the increasing use of smart phones, the MPFA launched its first mobile app in 2013, serving as an easily accessible platform for useful information about MPF. It also aims to enhance scheme members' engagement with MPF.

25. MPFA's mobile app provides background information about the MPF System; the missions and roles of the MPFA and the services it provides to scheme members; MPF educational materials; and some useful links to relevant organisations. It makes available two MPF calculators to help users estimate retirement needs and project MPF accrued benefits. An apps portal is also available on MPFA's home page, providing relevant links to all MPFA mobile apps.

D. Challenges and Risks in Relation to the Development of Digital Initiatives

26. During the development of various digital initiatives, the MPFA has encountered some challenges and risks which needed to be addressed so as to ensure the smooth launch of these projects.

Keeping Regulation Abreast of Digital Development

27. The existing regulatory and supervisory regime needs to stay abreast of the development of digital technology. To facilitate the launch of the ePASS, the Mandatory Provident Fund Schemes Ordinance (Cap 485) was amended, empowering the MPFA to designate an electronic system for the purpose of transfer of accrued benefits. The amendment also empowered the MPFA to charge a fee to be payable by trustees for the use of the electronic system. Guidelines were also issued to trustees on transmission of data in respect of transfer of accrued benefits through the designated electronic system.

User Acceptance and Engagement

28. To achieve the benefits of digital technology, one of the major challenges is to encourage users to change their behaviours and migrate to paperless transactions. Before launching a digital initiative, substantial effort is required to conduct engagement activities with trustees, employers and scheme members to understand their needs and concerns. During and immediately after the launch of a digital initiative, publicity and educational programmes are essential to make targeted users aware of the benefits they can obtain from the initiative. In the development of the ePASS and E-Payment for MPF Transfer, the MPFA had set up working groups with trustees to discuss issues like standardisation of data requirements and operational procedures. Relevant training was provided to the staff of trustees so as to ensure the proper and efficient operation of the systems.

29. To encourage the use of the E-Payment for MPF Transfer that facilitates transfer of benefit payment electronically between trustees, trustees were given a fee waiver for the initial years of their use of this new payment settlement model.

Security of Data Transmission

30. Security of data transmission is a major risk faced by a private pension system with decentralised administration. One way to contain the risk is to set up a secured electronic platform connecting the pension supervisory authority with each trustee through a private network in which trustees need to follow specified security measures to connect to the platform. Under the ePASS, the data transmission process is conducted through the infrastructure of the TrusNet, an existing secured private network platform connecting the MPFA and individual trustees to prevent data leakage. To further protect data privacy, data files are encrypted before transmission through the ePASS.

31. A registration system needs to be set up to deal with any digital devices that involve viewing and management of personal records. While online registration is available to end-users (e.g. scheme members), stringent identification verification procedures need to be put in place to avoid scams. During the online application process of an ePA account, for example, a scheme member is required to upload his/her identity card and a valid proof of address issued within the last three months for identity verification. Further verifications via phone or in person at the MPFA offices may be required for any suspicious cases.

Collaboration with Other Regulators

32. On some occasions, a digital project may involve more than one regulator and proper collaboration between regulators is pivotal to a smooth launch of the project. For example, the E-Payment for MPF Transfer system makes use of the HKMA's CMU to automate payments for the transfer of MPF accrued benefits between trustees. The MPFA needed to liaise with the HKMA and trustees regarding the mode of co-operation, system requirements, implementation schedule and other preparatory work for implementing the digital initiative.

IV. A Major Digital Initiative Underway: the eMPF (a Centralised Electronic Platform)

Background and Objectives of the eMPF

33. The MPFA has, for years, endeavoured to simplify and automate administration of the MPF System and to find ways to help scheme members manage their MPF more effectively. The MPFA's next

priority is to develop a centralised electronic platform, called the eMPF, which is expected to bring significant and fundamental changes to the administration of the MPF System.

34. The objectives of the eMPF are to improve accuracy, reliability and efficiency of the MPF System with the help of digital technology, enhance user experience by bringing higher quality services, lower costs and fees by standardising, streamlining and automating MPF scheme administration, and enable future reforms of the MPF System.

Key Features of the eMPF

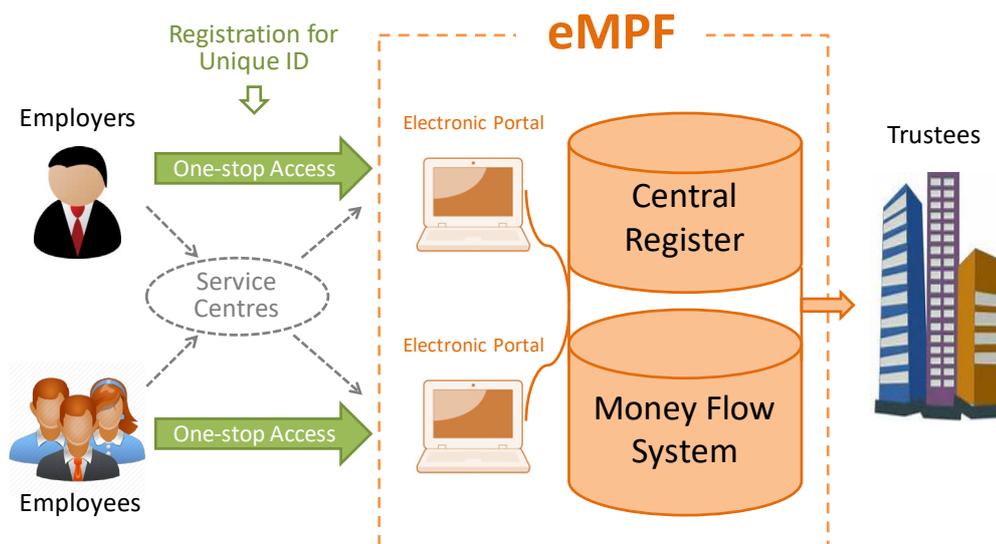
35. The eMPF is still at its planning stage, and its mode of operation and functionalities have not yet been finalised. Information provided in respect of the eMPF below will be subject to change as the project evolves.

36. The eMPF is a centralised electronic platform that interfaces with trustees' systems for data transition so as to provide an electronic portal for employers and scheme members to have one-stop access to relevant information about their MPF accounts with different trustees.

37. Employers would register with the eMPF for a unique identity to access its functions. The eMPF would assist employers in automatically calculating the amount of contributions in respect of each employee and provide contribution payment instruction via the payment gateway. The contribution data and payment status would be sent to trustees electronically.

38. Scheme members would register with the eMPF for a unique identity to access its functions. The eMPF would provide an electronic portal for scheme members to access all relevant information about their MPF accounts with different trustees and necessary functions and tools for scheme members to manage the accounts.

39. During the transition period, service centres will be operated to assist scheme members and employers with lower computer-literacy in managing MPF issues through the eMPF.



Progress to-date

40. The Government and the MPFA jointly set up a Working Group on eMPF (Working Group) in June 2017 to steer the development of the centralised electronic platform. Members of the Working Group comprise representatives of trustees who are operating MPF schemes.

41. The Working Group had developed the high-level technical specifications of the centralised electronic platform by the end of August 2018 for estimating the costs of building the infrastructure for the Government to seek funding from the Legislative Council.

Key Challenges of the eMPF

42. It is anticipated that changing the behaviour of employers and scheme members will be one of the key challenges that needs to be addressed to achieve the intended benefits of the eMPF. Currently, all trustees are offering electronic services for MPF participants to manage their MPF-related matters. According to the information provided by trustees, there is much room for wider adoption of those electronic service by the MPF participants. To maximize the cost-efficiency brought by the eMPF, behavioural change of MPF participants to adopt electronic means of transactions should start now rather than when the eMPF is ready. To this end, individual trustees have developed their work plans on promoting digital take-up while the MPFA has developed a publicity campaign to supplement trustees' efforts. MPFA's publicity programmes started in October 2018 and will continue to be implemented by phases to dovetail with the launch of eMPF.

43. Under the retirement protection framework of the World Bank, the second pillar model is a privately managed retirement savings. This means that in the context of the MPF System, all along, both the scheme administration and investments into funds are performed by the private sector. They adopt varying degree of IT system sophistication, data standards, data privacy matrix and business rules and logic. Merging all these into a centralised electronic platform demands a huge overhaul on various parties involving standard convergence, process alignment, business rules writing and technological expertise.

44. If cost efficiency and effectiveness is to be gained in the second-pillar setting, some common functionalities like scheme administration need to adopt a more aligned and centralised model. Therefore, to pursue this major digital initiative, it is inevitable that there will be an overhaul of the existing legislative framework and changes in operations, roles and responsibilities of trustees. The MPFA will continue to work closely with the Government and trustees on these fronts.