

For discussion
on 1 November 1999

**The Legislative Council
Panel on Financial Affairs**

**Progress of Y2K compliance work
in non-government and government organisations
under the purview of the Financial Services Bureau**

Purpose

This paper updates members on the progress of Y2K compliance work in the financial services sector in Hong Kong and the departments under the purview of the Financial Services Bureau (FSB).

Supervisory Initiatives of Financial Regulators

2. We last briefed members on the Y2K readiness of the financial services sector in Hong Kong at the meetings on 7 December 1998 and 13 April 1999. Since then, the three financial regulators in the financial services sector, namely the Hong Kong Monetary Authority (HKMA), the Securities and Futures Commission (SFC) and the Office of the Commissioner of Insurance (OCI) have continued to closely monitor the progress of Y2K work in their respective industries. Major measures taken by the regulators include requiring the financial institutions under their supervision to submit regular progress reports and to hire professional bodies, as appropriate, to perform independent assessment on their Y2K readiness, to conduct on-site inspection, and to issue guidelines or circulars providing practical guidance on Y2K compliance and contingency planning.

Readiness of Financial Institutions

3. The HKMA, the SFC and the OCI have asked all the financial institutions under their respective supervision (over 2 100 in total) to submit regular returns on the progress of their Y2K programmes. As at end September 1999, all banks, members of the Exchanges, insurance companies and insurance brokers reported that they had rectified¹ all their mission critical

¹ Rectification work means modification or replacement of hardware and software to achieve Y2K compliance, including internal testing of individual systems and interaction of modified systems with the organisation's other systems with which they interface directly.

systems² and completed internal testing of such systems.

4. There were two registered intermediaries under the direct supervision of the SFC which had not completed internal testing as at end September 1999. However, these two firms are expected to complete the tasks by the end of October 1999.

5. For added assurance of the compliance position of the financial institutions, the financial regulators have conducted on-site inspection, telephone interviews or documentation reviews, as appropriate, of the Y2K compliance programmes of the institutions under their respective supervision. In the securities and futures industry, the SFC has worked closely with the Stock Exchange of Hong Kong (SEHK) and Hong Kong Futures Exchange (HKFE) to co-ordinate such inspection and review initiatives on members of the two Exchanges. In the insurance industry, the compliance programmes of insurance brokers are monitored by the two approved brokers' bodies³, which have asked the brokers to submit independent audit reports on their compliance position.

6. According to the regulators and the two Exchanges, individual financial institutions have taken steps to implement major areas of improvement identified in the on-site inspections and audit reviews of their Y2K programmes.

Readiness of Financial Regulators and Major Shared Systems

7. As for the financial regulators themselves, all mission critical systems of the HKMA, the SFC and the OCI are fully Y2K compliant. The shared financial systems operated by SEHK, HKFE, Hong Kong Securities Clearing Company (HKSCC) and Hong Kong Interbank Clearing Limited (HKICL) are all Y2K compliant. Such systems include the trading, settlement and clearing systems for securities and futures transactions respectively, and all interbank payment systems in Hong Kong. The Y2K programmes of the financial regulators and operators of these major shared systems have either been reviewed by independent bodies or subject to most vigorous internal audit.

² A system is considered mission critical if it causes substantial loss (either in terms of money or time) or serious disruption of business when it is in default.

³ Insurance brokers are supervised by two self-regulatory industry bodies approved by the Insurance Authority under the Insurance Companies Ordinance. These two bodies are the Hong Kong Confederation of Insurance Brokers and the Professional Insurance Brokers Association.

External testing of shared systems

8. In the banking industry, three rounds of end-to-end testing of interbank payment systems have been conducted since August 1998. All banks were required to take part in the tests unless they had successfully passed previous tests. The tests were completed with no Y2K related problems identified.

9. On the international front, the HKICL, as operator of the interbank payment systems, co-ordinated participation of Hong Kong banks in the Global Financial Industry Y2K Test organised by the New York Clearing House in June 1999. Over 20 banks in Hong Kong took part in the test. The testing results demonstrated the readiness of the Hong Kong banking sector to interface with the global payment infrastructure in processing cross-border multi-currency and foreign exchange transactions.

10. In the securities and futures industry, three rounds of Y2K street-wide tests were conducted in the first half of 1999. The SFC co-ordinated the tests and participants included the two Exchanges and all the clearing houses, exchange members, clearing house participants, designated banks and information vendors.

11. The objective of the street-wide tests in the securities and futures industry is to provide facilities for all Exchange members and relevant parties to verify the Y2K compliance status of their business operations and back office systems, including hardware and software and their interfaces with the shared financial systems operated by the two Exchanges and the clearing houses. Taken together, except those firms which are inactive or do not use any computer systems in their operation, all members of the stock and futures exchanges and the clearing houses have participated in the tests. No major exceptions in the testing results were identified at the end of the last round of the tests in June 1999.

12. The detailed plans for the above external testing activities organised by the Exchanges and clearing houses in Hong Kong have been reviewed by an independent consultant. The overall outcome of the review is that the testing programmes are comprehensive and of high quality.

International Recognition

13. The satisfactory progress of Y2K compliance work of the financial services sector in Hong Kong is recognised by the international financial

community. For instance, a global group of financial institutions has rated very positively the overall Y2K readiness of financial services firms and clearing and settlement organisations in Hong Kong. According to a survey conducted by a body of international financial regulators, Hong Kong is widely believed by the international financial community to be one of the leaders in the work in Y2K preparedness. In a special report on the Y2K readiness of East Asian banking systems published by a reputable credit rating agency in April 1999, Hong Kong banks are ranked one of the best prepared for Y2K in the region.

Contingency Planning

14. We recognise that irrespective of the amount of rectification work and testing conducted or planned, adequate contingency plans should be put in place to deal with the Y2K problem. The overall objective of Y2K contingency planning is to identify and understand the risks posed by the Y2K problem and develop measures to cope with the major risks so as to minimise material disruptions and other problems due to the century date change. Depending on circumstances, contingency plans should cover preventive, mitigation and contingency measures to address the risks identified.

Individual financial institutions

15. At the institutional level, the financial regulators have issued guidelines on Y2K contingency planning to the financial institutions under their supervision. According to reports submitted to the regulators, all banks, members of the two Exchanges, insurance companies and insurance brokers have put in place contingency plans for the Y2K transition. As for non-exchange registered intermediaries in the securities and futures industry, over 99% of them reported at end September 1999 that they had completed their contingency plans. The small number of outstanding firms are expected to complete their contingency plans by end October 1999.

16. It is recognised that the complexity of a financial institution's Y2K contingency plan and the specific measures to deal with Y2K contingencies will vary depending upon its size, business, operations, extent of automation and customer profile. As a general rule, however, all banks and members of the two Exchanges will establish Y2K command centres for management and co-ordination of quick detection of and responses to Y2K related problems in relation to their internal systems as well as the external environment during the period of Y2K critical dates. In particular, they are required to conduct

“wellness checks” on 1 and 2 January 2000 to ascertain the actual performance of various internal and external systems after the millennium rollover.

17. The financial regulators have asked all institutions under their supervision to submit status and incident reports in a prescribed form and at specific intervals before the financial markets open for business on 3 January. The institutions have also been requested to make arrangements to ensure that key staff are available during the critical periods to implement contingency plans as required, and that adequate backup data and accurate records are kept in place before the rollover.

Financial regulators, exchanges and clearing houses

18. Basically, all financial regulators, the Exchanges and clearing houses have completed their own Y2K contingency plans. They are now actively validating their plans and will continue to review and refine them having regard to the outcome of the validation exercises.

19. In the banking industry, the HKMA announced in September 1999 that it would introduce an enlarged Discount Window⁴ and a term repo facility⁵. These preventive and mitigation measures, which have been adopted by central banks of leading economies overseas, aim to help increase the supply of liquidity to the money market during the Y2K critical periods for the purpose of ensuring systematic stability. The HKMA has also worked closely with the HKICL to develop contingency measures to maintain a reasonable level of interbank payment services should the systems concerned experience any Y2K-related problems.

20. In the securities and futures industry, the SEHK, HKFE and HKSCC have all developed a comprehensive rollover plan. They will undergo thorough wellness checks during the millennium transition to ascertain that their mission critical systems operate as usual upon transition to year 2000 and when the markets open on 3 January.

⁴ The purpose of the enlarged Discount Window is to increase the amount of Hong Kong Dollar liquidity that can be obtained by licensed banks through the Discount Window by temporarily removing existing restrictions and by the HKMA accepting a wider range of debt securities as eligible collateral.

⁵ The term repo facility is to allow licensed banks to obtain in advance Hong Kong Dollar liquidity from the HKMA for the year-end at a known price.

21. Some of the major Y2K event management measures to be taken by the HKMA, the SFC, the Exchanges and clearing houses are highlighted in the annex.

22. In the insurance industry, irrespective of the fact that there is no shared system among the insurance companies, an effective communication mechanism has been put in place to ascertain that their critical systems operate as usual after the rollover and are ready for the first business day on 3 January.

Sector-wide level

23. At the sector-wide level, Y2K contingency planning aims to prevent, mitigate and contain Y2K-induced disruptions to the financial services sector as a whole as far as possible. As part of the plan, we have set up an emergency co-ordination centre to co-ordinate the exchange of information within the financial services sector and to communicate with other sectors through the Central Y2K Co-ordination Centre set up by the Information Technology and Broadcasting Bureau. The emergency co-ordination centre will also monitor the development of incidents in the financial services sector during the Y2K critical periods.

24. The centre will refer cross-industry issues with sector-wide implications to an ad hoc committee to be chaired by the Financial Secretary for decision. Members of the committee include the Secretary for Financial Services and his deputy, the Chief Executive of the HKMA and the Chairman of the SFC. Commissioner of Insurance, senior management of the Exchanges and clearing houses and other relevant parties would be invited to join the meeting of the committee as necessary.

25. On current planning, the Y2K emergency co-ordination centre will be in full operation for the period of 31 December 1999 to 4 January 2000. The manning level of the centre afterwards will be determined having regard to circumstances then.

26. The operation of the sector-wide emergency co-ordination centre and communication among the various parties concerned have been validated during the rehearsal in early September and the rollover to 9 September with no major problems identified. To better prepare the financial services sector for the Y2K transition, we are planning a large-scale rehearsal in mid November to ensure that contingency measures to be taken in response to any incidents are timely and well-coordinated, and that communication among all parties concerned remains effective throughout the transition.

Readiness of Departments under the Purview of the Financial Services Bureau

27. The FSB has been overseeing the progress of the Y2K compliance programmes in the departments under the Bureau's purview. They include the OCI, the Census & Statistics Department, the Companies Registry and the Official Receiver's Office.

28. All the mission critical systems in the above departments are already Y2K compliant and the departments have developed Y2K contingency plans in line with the guideline promulgated by the Steering Committee on Y2K Compliance chaired by the Secretary for Information Technology and Broadcasting.

29. The only mission critical system in the FSB is a burglar alarm and security system, which is Y2K compliant. FSB has also put in place a Y2K contingency plan to deal with emergency situations affecting office operation during the Y2K rollover.

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Summary of major event management measures during the millennium transition

HKMA

The HKMA Event Management Centre (EMC) will be in operation from 31 December 1999 to 14 January 2000. During this period, the EMC will collect information from banks and the major shared system providers in the banking sector with respect to their performance prior to and following the millennium rollover. Banks will also be required to periodically report the status of their data backup and wellness checks. The EMC will also collect information on the rollover performance of the major international financial markets and payment and settlement systems through the Joint Year 2000 Council and the Executives' Meeting of East-Asia Pacific Central Banks.

2. The EMC will be headed by a Director. It will be manned by over 25 staff when it is in full operational mode and will be supported by 7 Event Management Teams on standby. There will be regular communications between the EMC and the Senior Executives of the HKMA on developments in the financial services sector. In addition, a Communication Centre with around 10 staff will be set up to handle any public relation issues arising. These event management arrangements will be fully rehearsed in advance of the millennium date change.

SFC

3. On current planning, the SFC Crisis Management Centre (CMC) will operate from 31 December 1999 to 4 January 2000. It will be headed by a Director and manned by a team of 20 staff when the CMC is in full operation. Communication of the CMC with the centres of the exchanges and clearing houses will be facilitated by the dedicated telephone hotlines set up between the CMC and those centres.

4. The CMC will perform multiple functions. It will closely monitor the wellness checks to be performed by the two exchanges, the clearing houses, and their members and users respectively in respect of their internal mission-critical systems to make sure that such systems will operate as usual upon the transition to year 2000. The CMC will also co-ordinate the industry-wide rollover test to be participated by the above parties on 1 January 2000. The purpose of the test is to ascertain readiness of the entire securities and futures industry for opening of the market on 3 January. At the international level, the CMC will report the status of Hong Kong's securities and futures industry pre-

and post-year 2000 transition to the Joint Year 2000 Council.

5. The CMC will report, at pre-determined times, the results of the wellness checks and industry-wide tests to the financial sector emergency co-ordination centre. The corporate communication staff in the CMC will closely liaise with the relevant staff in that centre on issues of public interest or concern arising during the rollover period.

SEHK

6. The SEHK will conduct wellness checks on its building facilities, infrastructure and systems immediately after the millennium rollover and simulation tests arranged with its members on 1 January 2000. A Y2K command centre, headed by its Chief Executive, will be in full operation to oversee the above checks and testing activities. The Y2K command centre will also receive wellness status reports from SEHK Members and information vendors to assess that their systems will operate as usual after the turn of the millennium. Close liaison will be maintained with the SFC and other major shared systems operators in the securities and futures industry and appropriate contingency arrangements will be activated if necessary. Arrangements have also been made to provide sufficient staffing support to the Y2K command centre. The SEHK IT staff and field engineers from key system vendors will standby on-site to ensure quick responses to any Y2K problems that may occur.

HKFE

7. During the rollover period, HKFE will set up a co-ordination centre to receive and disseminate information and to activate appropriate contingency measures. Close contacts will be maintained with other emergency coordination centres in the financial services sector to ensure that issues are dealt with in a coherent manner. Hotlines will be established to maintain contacts with HKFE members. In addition, a designated team will monitor the status of HKFE members which may require assistance arising from Y2K problems. In this respect, most HKFE staff will be working in shifts to deal with emergencies which may occur.

HKSCC

8. HKSCC will conduct an internal wellness check and full testing of a business day with participants of the clearing house systems on 1 January

2000. About half of all the clearing house's staff would be on-site and the remaining on standby to support the actual rollover to 2000. The command centre, headed by the Chief Executive, would be in operation throughout the period. Support staff from key vendors would be on-site to ensure quick fix of any problems that may occur.