THE YEAR 2000 PROBLEM

The responsibility for resolving the Year 2000 ("Y2K") problem rests squarely with the management of authorized institutions ("AIs"). However, the HKMA needs to ensure that institutions do take adequate and prudent steps to address the issue. To date, the results indicate that the AIs have been making good progress in preparing for the Y2K transition. However, there are a number of issues which require ongoing attention such as counterparty assessment and contingency planning. The HKMA has also devoted substantial attention to industry-wide initiatives to deal with the Y2K problem. In the coming months, the HKMA will finalise its own Y2K contingency plan and will actively cooperate with other government departments and industry associations to promote public awareness of the Y2K preparedness of the financial sector in Hong Kong.

Introduction

The Y2K problem is one of the most significant challenges facing the banking sector and the wider community in the run up to the next millennium. It is the full responsibility of the management of Als to ensure that they take all necessary steps to successfully resolve the Y2K problem. However, because of its potential impact on the stability of the banking sector and depositors' interests, the Y2K problem is also a major supervisory concern of the HKMA. Accordingly, the HKMA has undertaken a number of prudential measures to ensure that both the banking sector and individual institutions will be well prepared in time for the year 2000.

Following an article on the Y2K problem that was published in August 1997, this article summarises what the HKMA has done since, and plans to do in 1999 to prepare for the transition to the next millennium.

Supervisory initiatives of HKMA

The HKMA previously established 31 December 1998 as the deadline by which all Als were expected to be Y2K compliant in accordance with the following definition:

"A Year 2000 compliant system should perform, function and manage data involving dates without being abnormally affected by dates spanning the period prior to, during and after the year 2000."

This is in line with definitions commonly adopted internationally and by most institutions in their formal plans previously submitted to the HKMA. All Als were expected by 31 December 1998 to have completed the modification and testing of individual critical systems, and tested the interaction of modified systems with the institution's other systems with which they interface directly. This is intended to leave time for the institutions to conduct testing with external parties and other Y2K preparations throughout 1999.

While the HKMA cannot guarantee that each and individual institutions will be Y2K compliant, it seeks to ensure that the Als' management takes all necessary and prudent steps to resolve the Y2K problem. The HKMA has therefore, since May 1998, required the chief executives of institutions to provide it with a formal statement of Y2K compliance progress on a bimonthly basis. The institutions are also required to be subject to some form of independent assessment of their compliance process. There are a number of means of

QUARTERLY BULLETIN 金融管理局季報 2/1999 independent assessment available, including on-site examination by the HKMA, review by external auditors, review by internal auditors which have the necessary independence and expertise to carry out the task, and review by other independent parties such as IT consultants who are familiar with Y2K issues. The HKMA has established specialised Y2K on-site teams to examine institutions as part of the independent assessment exercise. The formal statements and independent assessments are intended to reinforce the responsibility of the institutions' management and to ensure that satisfactory progress is made in achieving Y2K compliance.

Current status of Als' compliance progress

Based on confirmations provided by the chief executives of Als in early January 1999, 85% of the institutions have achieved Y2K compliance in respect of their critical systems in accordance with the HKMA's definition by 31 December 1998. This represents a decrease from the earlier projections of compliance made by the institutions. This is not surprising given that testing is the most complex and resource-intensive phase of a Y2K programme. This is also why the HKMA set the target compliance date at the end of 1998 which is a full year ahead of the century date change. A number of Als have encountered minor slippage and they expect to complete the process in early 1999. Overall, we expect the compliance percentage to rise to around 90% by the end of January and 93% by the end of February 1999.

The HKMA is closely following up with those institutions which have not yet achieved Y2K compliance in respect of their critical systems. Formal warning have been issued to those Als which exhibit less than satisfactory progress in their compliance efforts and the institutions have been required to achieve Y2K compliance by the end of March 1999 at the latest. We have made clear to these institutions that if it appears that not every effort has been made to achieve compliance, the

HKMA will consider the use of its statutory powers under the Banking Ordinance to enforce compliance.

There have also been some slippages in terms of the Als' efforts in non-critical systems compliance in the past few months. It is possible that some institutions have given priorities to achieving compliance in respect of their critical systems. The HKMA has written to those Als to remind them that while priority should be given to critical systems compliance, they should not overlook the compliance progress of the non-critical systems. We have also sought clarification from those Als that any systems which are non-compliant are genuinely non-critical to the Als' operations and required them to achieve compliance in respect of these systems as soon as is practicable.

The results of the independent assessments conducted in September/October last year also indicated that the majority of Als had been taking the necessary steps to address the Y2K problem. However, there were certain common deficiencies in the Als' compliance efforts. For example, some Als had not developed a sufficiently comprehensive testing plan, or had not obtained confirmation on Y2K compliance from vendors such as hardware and software suppliers. The HKMA has been following up with these institutions to ensure that their Y2K efforts are as comprehensive as possible. The Y2K on-site teams have examined over a hundred institutions to date and in the coming months it will conduct further examinations on selected institutions.

Other recent developments & initiatives of HKMA

Compliance status of HKMA

The HKMA achieved full compliance in respect of its internal systems and embedded systems in December 1998. It has also completed testing with Hong Kong Interbank Clearing Limited

QUARTERLY BULLETIN 金融管理局季報 2/1999 I The HKMA has adopted the following definition for critical systems: "Any centralised or decentralised computer hardware, software, networks, or equipment with embedded computer chips and logic, e.g. security systems, elevators, vault, of an Al is a critical system if at least one of the principal businesses of the institution will be disrupted or considerably impaired as a direct or indirect consequence of abnormal performance or functionality of the system."

("HKICL"), SWIFT, Bloomberg and Hexagon while testing with other external parties is being arranged.

Disclosure requirements

The HKMA has introduced requirements for disclosure by Als in relation to the Y2K problem. The requirements, which are consistent with those set by the Stock Exchange of Hong Kong for listed companies, are applicable to the larger local and overseas institutions in respect of their financial periods ending on or after 31 December 1998. The HKMA has also since March 1998 published a Year 2000 Bulletin and has maintained a dedicated web-page on Y2K as a means to promote public awareness of the issue.

International co-operation

The Y2K problem has also increasingly drawn the attention of both the public and private sectors around the world. The Joint Year 2000 Council, an international body of financial regulators, serves as a contact point between financial regulators and market participants and a global clearing house for Y2K information. It also promotes readiness and identifies sound practices for dealing with the issue. The HKMA has been acting as the contact point for Hong Kong in the Joint Council. Furthermore, a number of private sector international financial institutions have formed a Global 2000 Coordinating Group. It is an informal grouping of banks, securities firms and insurance companies whose aim is to identify and pool resources to improve the readiness of financial institutions around the world to meet the challenges created by the Y2K date change. The Hong Kong Association of Banks is a member of the steering committee of the Group and performs the role as the Hong Kong Liaison of the Group responsible for gathering information about Y2K progress of the financial and other sectors in Hong Kong.

Steering Committee on Year 2000 Compliance in the Financial Services Sector

The banking sector cannot properly function as a result of material Y2K failures of other integral segments of the financial sector. Since March 1998, the HKMA has actively taken part in the Steering

Committee on Year 2000 Compliance in the Financial Services Sector convened by the Secretary for Financial Services. A key objective of the Steering Committee is to co-ordinate resources and actions in the areas of industry-wide testing and contingency planning for the financial sector as a whole.

In October last year, the Steering Committee issued a report which summarises the position of the Y2K external testing activities in the financial services sector in Hong Kong. The information contained in the report provides the public as well as the international financial community with a better understanding of what the financial services sector in Hong Kong has done or is planning to do to enhance its Y2K readiness. The report has received very good response from the international financial community.

Interbank payment systems

The HKICL has confirmed that the Y2K external end-to-end testing of the interbank payment systems was completed in November 1998 as scheduled. No abnormalities relating to the Y2K problem were identified during the tests. The HKICL will organise two additional rounds of end-to-end testing in 1999 to provide opportunities for banks to further validate the compliance of their interfaces with the interbank payment systems. The HKICL will also participate with the New York Clearing House in a global co-ordinated test to be conducted by central banks, clearing and settlement systems, global message systems and financial institutions in mid-1999.

Supervisory priorities of HKMA in 1999

There are now just around 300 days until the year 2000, which makes it more important than ever for the Als' management to focus carefully on all the steps that need to be taken to prepare their institutions for the transition to the year 2000. Because of the potential impact on the stability of the banking sector and depositor's interests, the HKMA will continue to devote substantial supervisory attention and resources to prepare itself and the banking sector for the Y2K transition. The HKMA will particularly focus on the following key programmes in the coming months.

QUARTERLY BULLETIN 金融管理局季報 2/1999 Since the financial sector is probably more exposed than other sectors to third party risks on the Y2K issue, it is imperative for banks to properly handle counterparty assessment and contingency planning. We have issued relevant guidelines to the Als and will monitor the steps they are taking to address these issues.

The HKMA is also in the process of formulating its own contingency plan to deal with any systemic risks for the banking sector arising from the Y2K transition. Since the Y2K preparedness of the public infrastructure providers such as telecommunications and power supply will be of critical importance to the banking sector, the HKMA contingency plan will take into consideration the readiness of these public infrastructure providers and other essential and strategically important government services.

Finally, the HKMA recognises that as the year 2000 approaches, the public will almost certainly be paying increased attention to the Y2K problem, including the readiness of the banking sector. As mentioned before, the HKMA has already required the institutions to disclose information about their Y2K progress in their financial statements and interim reports as part of the financial disclosure requirements. In the coming months, the HKMA will step up its efforts to promote greater public awareness of the compliance efforts of the banking industry, including recommending banks to make information about their Y2K projects more easily available to their customers e.g. by distribution of information pamphlets. Obviously, we are aware that there needs to be concerted efforts across sectors to promote Y2K awareness in the community. The HKMA will work closely with other government departments, industry associations and international bodies in this regard. The HKMA believes that a sound and effective communication strategy is a crucial part of the Y2K management process to ensure a smooth and successful transition to the new millennium.

- Prepared by the Banking Development Division