

**SAFETY AND SOUNDNESS GUIDELINES
CONCERNING
THE YEAR 2000 BUSINESS RISK**

December 17, 1997

To: The Board of Directors and Chief Executive Officers of all federally supervised financial institutions, providers of data services, senior management of each FFIEC agency, and all examining personnel

Background:

On May 5, 1997, the FFIEC issued an interagency statement entitled "Year 2000 Project Management Awareness" (Interagency Statement) focusing on the project management process and other significant Year 2000 issues. Although the Interagency Statement provided a detailed overview of the Year 2000 project management process, subsequent discussions with financial institutions, vendors and consultants indicate the need for additional guidance regarding regulatory expectations of senior management and the board of Directors concerning the business-wide implications of these issues.

Purpose:

The purpose of these safety and soundness guidelines is to outline the responsibilities of senior management and the board of Directors for addressing the business risks associated with the Year 2000 problem. Senior management and the board of Directors should actively manage efforts to plan, allocate resources and monitor progress to correct Year 2000 problems. This includes managing the internal and external risks presented by providers of data processing products and services (vendors), business partners, counter parties, and major loan customers.

Summary:

These guidelines outline the agencies' expectations in the following areas:

- The Year 2000 problem is much more than a technology issue; it is an enterprise-wide challenge. Senior management and the board of Directors must be actively involved in overseeing internal Year 2000 efforts and monitoring the business risks posed by vendors, business partners, counter parties, and major loan customers.
- In order to be fully informed and provide effective direction, management must provide the board with status reports, at least quarterly, on the financial institution's Year 2000 efforts. Reporting must include information on the institution's internal Year 2000 corrective efforts and the ability of the institution's major vendors to provide Year 2000 ready products and services.
- The regulatory agencies are clarifying the Interagency Statement's guidance that suggested financial institutions seek certification from their vendors that their products and services are Year 2000 compliant. Formal certification is not required as it alone is not

sufficient to ensure that a product or service would operate properly in the unique environment of many user institutions. Instead, financial institutions should (a) communicate with their vendors and conduct due diligence inquiries concerning Year 2000 readiness and also (b) implement their own appropriate internal testing or verification processes pertaining to these vendor products and services to ensure that their systems and data function properly together. Financial institutions should develop contingency plans for all vendors that service mission critical applications and establish a trigger date for implementing alternative solutions should the vendor not complete its conversion efforts on time.

- The Year 2000 problem requires an extensive project planning process to ensure that management addresses all business critical issues in a timely and prudent manner. Management must allocate sufficient human and financial resources to the project and should develop/monitor contingency plans for use if Year 2000 corrective efforts do not materialize as expected.
- To increase the probability of successfully resolving Year 2000 problems, financial institutions should work together to find common solutions by sharing successful practices, common testing methodologies and other non-proprietary information.

Enterprise Challenge:

The Year 2000 problem presents corporate-wide challenges for financial institutions, their vendors, business partners, counter parties, and customers. However, the regulatory agencies are concerned that many financial institutions view the Year 2000 issue solely as an information system (IS) problem rather than a broader, enterprise-wide challenge. Many institutions may not have adequately funded their Year 2000 programs and may lack the necessary resources to properly address the issue.

The board of Directors should ensure that senior management is taking an enterprise-wide approach to address Year 2000 problems and must provide sufficient resources to resolve Year 2000 problems. For example:

- As the Year 2000 will affect most, if not all, of an institution's accounting and risk control systems, there should be close coordination between business units and the institution's operational and risk management functions as conversion programs are executed.
- Financial institutions relying on vendors for information processing services or products should determine their vendors' progress in resolving Year 2000 issues and the readiness of their own systems and data for appropriate testing. Parties throughout the institution should be involved to coordinate readiness efforts and to develop contingency plans.
- The interdependencies of a financial institution's information systems will require comprehensive testing of applications with all internal and external systems that share information. Senior management should monitor the testing of all mission critical systems.
- The approach of the Year 2000 creates potentially adverse effects on the creditworthiness of borrowers. Corporate customers who have not considered Year 2000 issues may experience a disruption in business, resulting in potential financial difficulties affecting their creditworthiness. Financial institutions should develop processes to identify, assess, and control the potential Year 2000 credit risk in their lending and investment portfolios. The regulatory agencies are preparing additional guidance with respect to their expectations of senior management concerning these indirect risks and other important topics.

Reporting to the Board:

The board of Directors must oversee the institution's Year 2000 efforts. Senior management must manage the project on a day-to-day basis, ensuring the appropriate prioritization of resources and establishment of proper benchmarks and time lines. The board must, at a minimum, require quarterly status reports from management that detail the organization's progress in addressing Year 2000 issues. The board should be immediately notified if the project fails to meet critical benchmarks.

The nature and extent of reporting should reflect the complexity of the institution's operations. Reports should include, but not necessarily be limited to, updates concerning the:

- Overall progress of the Year 2000 project, including any new efforts initiated since the last report.
- Progress plotted against the institution's Year 2000 project plan, including comparisons against performance benchmarks.
- Status of efforts by key vendors, business partners, counter parties, and major loan customers to address Year 2000 issues, including any weaknesses discovered and critical decision dates.
- Results of internal and external testing of information processing applications, databases, and systems.
- Contingency planning efforts that outline alternative courses of action in the event existing internal systems or external systems provided by vendors will not be ready for the Year 2000.

Reports to the board, for institutions that are responsible for the renovation of their own mission critical applications¹, should also be tailored to the complexity of its applications and should provide information that:

- Identifies the total number of applications inventoried during the assessment phase and details the number of mission critical applications in each stage of the five step project management process outlined in the Interagency Statement.
- Informs the board about the progress being made to complete the renovation, testing and implementation of mission critical applications.
- Identifies the number of mission critical applications grouped by the intended resolution strategy (e.g., repair, install vendor upgrade, eliminate/retire, outsource, test only).
- Summarizes the results of internal and external testing.

Board minutes should reflect, as appropriate, any material action taken by the board to address Year 2000 issues or concerns. Board reporting should be available for review by examiners during onsite and offsite supervisory activities.

Clarification of Certification Requirement:

The Interagency Statement suggested that financial institutions obtain certification from their vendors when products and services are Year 2000 compliant. However, the regulatory agencies recognize that certification alone is not sufficient to provide adequate assurance that a

product will operate properly in the unique environments of the many user financial institutions. Only a comprehensive test of all internal and external systems and system interdependencies by each user financial institution will ensure that they will function properly together. Therefore, formal certification is not required. Instead, financial institutions should (a) communicate with their vendors and conduct due diligence inquiries concerning Year 2000 readiness and also (b) implement their own appropriate internal testing or verification processes pertaining to these vendor products and services to ensure that their systems and data function properly together. They should monitor closely their vendor's progress in meeting target deadlines. The vendor's plan should allow adequate time for user testing in a Year 2000 environment. Topics that should be addressed with vendors include:

- Dates that products will be Year 2000 ready and available for testing.
- Products that will not be Year 2000 ready, or will no longer be supported.
- Methods used to renovate the product or the system to address Year 2000 (e.g., field expansion, windowing).
- The pivot year, if the windowing method is used.²
- Any efforts that require coordination between the institution, its vendor and any other parties involved in external testing.
- Vendor guidance on user testing of products.

Financial institutions should develop contingency plans for all vendors that service mission critical applications and establish a trigger date for implementing alternative solutions should the vendor not complete its conversion efforts on time. These plans should consider the institution's own level of preparedness as well as that of their service providers. Contingency plans should be reviewed at least quarterly and adjusted, if necessary, to reflect current circumstances.

In establishing relevant trigger dates, management should have a thorough understanding of the complex interrelationships between its systems and those of its vendors. An institution also should consider the time necessary to convert the existing system to one that is ready for the Year 2000, the staff training time needed to implement an alternative system, and the availability of alternative systems. If, after a thorough analysis, it appears that the institution's Year 2000 conversions, or those of its vendors, will not be completed on time, management should be ready to implement its contingency plans. If success is in doubt for complex applications, it may be necessary to begin implementation of the contingency plan while continuing to work on the desired solution. Additionally, it may be necessary to begin renovation on an existing system, if timely implementation of a replacement system is not assured.

For in-house developed applications, the contingency plan should identify how the institution will transition to an alternate system or to an external vendor. For institutions that rely on vendors, the contingency plan should identify alternative suppliers and outline migration plans. In addition, time frames for Year 2000 contingency plans should be consistent with the time frames set forth in the Interagency Statement. The statement establishes December 31, 1998, as the date that institutions will have completed programming changes and have testing well underway for mission-critical systems.

Project Planning and Management:

The Year 2000 problem requires extensive project planning to ensure proper allocations of resources, and to ensure management accountability. The project plan should be formally

adopted, enterprise-wide in scope, and contain clearly defined objectives and deadlines. The project plan, at a minimum, should include the following:

- The tasks to be accomplished throughout the term of the project.
- Resource requirements and individuals assigned responsibility for various phases of the project.
- Specific dates for completion of key elements of the project.
- Strategy for responding to inquiries from customers and business partners regarding the institution's Year 2000 readiness.

Senior management should actively manage resources to ensure that the project remains on schedule. Management should implement processes that monitor the Year 2000 efforts of its vendors, business partners, counter parties, and major loan customers.

The regulatory agencies are concerned that many financial institutions and service providers will underestimate the costs of Year 2000 projects, especially those costs associated with the testing phase. As the Year 2000 approaches, the demand for technical resources will likely rise and the supply of these resources is expected to diminish, thereby increasing costs. Financial institutions must exercise appropriate due diligence in their budget planning to ensure that they have sufficient financial and human resources to complete their Year 2000 plans in a timely manner.

Given the nature and extent of the Year 2000 challenge, management may need to adjust resources throughout the life of the project. If adjustments are needed, management must redefine the project's scope, and, if appropriate, change the priorities of other data processing projects.

Industry Coordination:

The FFIEC member agencies strongly encourage financial institutions and their trade organizations to work collectively to address issues pertaining to the Year 2000. Effective industry cooperation can help reduce costs. By working together, financial institutions can share ideas, influence vendors, develop best management practices, and maintain their competitiveness with other industries. Financial institutions should consider enlisting industry associations and accounting firms for guidance. If the industry is to be successful in meeting the problems posed by the Year 2000, financial institutions will have to work cooperatively to share effective practices, common testing methodologies and other non-proprietary information.

¹An application or system is mission critical if it is vital to the successful continuance of a core business activity. An application may be mission critical if it interfaces with a designated mission critical system.

²Windowing for the Year 2000 involves the establishment of a "pivot year." Dates that are greater than or equal to the pivot year are interpreted to be 19xx. Dates that are less than the pivot year are interpreted to be 20xx.