

NATIONAL CONFERENCE  
ON YEAR 2000 COMPLIANCE

**Banks, financial intermediaries  
and payment system operators**  
**Progress report on adjustment**

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## **1. Introduction**

The transition to the new millennium is an event of crucial importance for the financial system in view of the interdependence between intermediaries and markets, the use — for many years and in every field — of information technology, and the intrinsic sensitivity of financial information to dates.

In recognition of this and in the belief that the challenge posed by the Year 2000 represents a unique opportunity for progress, the Bank of Italy has taken action in three directions:

- as a firm required to adjust its own technological infrastructure and software applications;
- as an institution committed, together with the Italian Bankers' Association (ABI), to promoting interbank cooperation in the field of automation;
- as an authority with responsibility for supervising and overseeing intermediaries, markets and the payment system.

A Technical Secretariat, set up some time ago, coordinates all the Bank's activities related to the Year 2000 problem.

I shall report briefly on the action taken in each of the three areas just mentioned before drawing some general conclusions.

## **2. Year 2000 adjustment within the Bank of Italy**

As a firm, the Bank of Italy has had to face the problems associated with the Year 2000 in the same way as other organizations.

A systematic analysis of the remediation required to adjust the Bank's information systems was launched in the mid-nineties, with special attention paid to the technologies needed to support

the Bank's institutional functions. Remedial action was then taken and special testing environments set up; suppliers were invited to guarantee the operation of their products beyond the year 2000.

Various types of test were planned and carried out at the level of the Bank, in cooperation with intermediaries, and within the European System of Central Banks.

Contingency plans, which have always been an integral part of the Bank's information infrastructure, are being enhanced as a prudential measure.

### **3. The Bank of Italy and interbank cooperation**

The Bank of Italy has been actively engaged in tackling the Year 2000 problem at the interbank level for more than three years. In 1996 a working group formed between ABI and the Interbank Convention on Automation (CIPA) defined the reference methodology to ensure the orderly remediation of banks' information systems; binding rules were issued for the treatment of dates in interbank applications.

The adjustment of interbank applications to the date change was carried out at the same time as the measures taken to handle the introduction of the euro. Testing began in April and will be concluded in the coming weeks. Both ABI and CIPA have identified and will shortly make public the basic features of the contingency plans that all intermediaries must put in place.

### **4. The Bank of Italy and its institutional functions**

On a number of occasions — the last being the Governor's Concluding Remarks in May this year — the Bank of Italy has reaffirmed the importance of addressing the date-change problem.

Convinced of the value of complete and correct disclosure on this matter, the Bank has supplemented the dissemination of information in its regular publications with dedicated channels

of communication: the Year 2000 page on its Internet site and the volume “The Year 2000: the level of compliance in the Italian financial sector”. This information will shortly be updated by data currently being processed.

To sum up, the Bank’s actions in the performance of its institutional functions have been aimed at:

- fostering awareness of the problem among the intermediaries subject to Bank of Italy supervision and/or oversight;
- verifying the progress of intermediaries’ remediation programmes;
- speeding up the preparation of contingency measures;
- intervening where intermediaries are in difficulty or behind schedule;
- facilitating the adjustment of the infrastructure used by operators providing clearing and settlement services for interbank payments and securities transactions.

In the last two years three surveys have been conducted on the progress of the “Year 2000 projects” of banks, financial intermediaries and payment system operators.

The first, in November 1997, assessed the extent of top management’s involvement in the problem and the procedures for controlling the implementation of remediation plans; it was also intended to increase awareness of the risks associated with the date change, albeit not always directly related to information systems.

The second survey, in October 1998, measured the progress of projects and verified the difficulties arising in connection with suppliers of information technology products.

The third survey began in March and is still in progress. The questionnaire asks intermediaries to self-assess their level of readiness, with particular emphasis on the running of tests and the preparation of contingency procedures. Each intermediary is required to submit the results to its Board of Directors.

Regular meetings are being held with the larger intermediaries, those that display problems, and the service providers smaller banks use for their outsourcing. Where necessary, formal letters urging action have been sent.

Ad hoc checks on information systems for Year 2000 compliance have been made during general inspections. In some cases special on-site examinations have been conducted dedicated to Year 2000 problems.

Payment and financial asset settlement systems have been checked by running tests of the procedures linking the Bank of Italy, Società Interbancaria per l'Automazione (SIA), CED-Borsa, Montetitoli, Cassa di Compensazione e Garanzia and applications centres. The screen-based money and financial markets have also run tests for Year 2000 compliance. Testing will be completed early in the autumn with the testing of trading activity integrated with intermediaries' back office operations and the settlement of transactions.

## **5. Update on the banking system's state of readiness**

The third survey I mentioned earlier, designed to evaluate the readiness of financial intermediaries is still under way. We already have virtually definitive data for banks, since the questionnaires have been returned by 876 intermediaries accounting for 99 per cent of the banking system's total assets.

Ninety-eight per cent of banks are taking action to adjust for the date change; 42 per cent are implementing a plan approved by the board of directors; the others are proceeding without a formally approved plan.

In 45 per cent of the survey returns, banks reported no delay with respect to the original schedule; in 52 per cent, they reported marginal delays. The remaining 3 per cent reported significant delays. The main causes of delay were suppliers' failure to meet deadlines, postponements in order to complete the euro project and the unsatisfactory results of some tests.

The survey results show that by the end of June the banking system will have completed more than 90 per cent of the planned renovation of procedures, and by September the figure should rise to 99 per cent. Among the larger banks, which are crucial to the overall functioning of the system, the average level of completion by the end of June will be 94 per cent for procedures and 90 per cent for technical infrastructure.

As for testing, nearly all the banks with in-house data processing expect to complete their testing of mission-critical applications by the end of September. By that time, integrated testing should be well under way at 90 per cent of banks.

Banks that rely on outsourcing will have tested 98 per cent of their principal software packages by the end of September.

Contingency plans are being prepared at 87 per cent of banks with in-house data processing and 72 per cent of those that rely on outsourcing.

By the end of October, 94 per cent of banks with in-house data processing and 91 per cent of those that rely on outsourcing expect to have completed all their preparations for the Year 2000.

Banks that have fallen behind are being asked to revise their schedules and to prepare contingency plans aimed at ensuring business continuity.

A positive picture also emerges from the survey on the progress in renovating and testing by payment system operators (applications centres and infrastructure providers). Careful attention is being paid to projects that are behind schedule in view of the systemic importance of the services these operators provide.

The complete results of the survey will be published as soon as they become available, by traditional means and on the Internet.

## 6. Conclusions

In the past year the international community has not infrequently expressed doubts about the Italian economy's readiness for the Year 2000. Such judgements are partly due to lack of information.

Some sectors and companies are probably lagging behind. The 196 days remaining until the end of the year — 165 when holidays are excluded — are too few to launch overall plans; it is necessary to concentrate on critical areas and prepare adequate contingency plans.

The interdependence of the different sectors of the economy must be borne in mind. The efforts of so many can be nullified if even a single sector, a single indispensable component of infrastructure, fails to perform properly.

As regards the financial system, considering the facts I have presented and the commitment shown by all those involved, I believe the following conclusions can be drawn:

- the Bank of Italy is ready for the date change. It has renovated and tested all its critical procedures and will use the remaining time to complete work on some minor, non-critical applications;
- the banking community has renovated all the interbank applications and is now concluding the complex testing phase;
- most banks and financial intermediaries have worked well in adjusting and testing their information systems.

In this context, we can take heart from the positive participation of the Bank of Italy, SIA and a significant sample of Italian banks in the worldwide test that the New York Clearing House organized last week in order to verify the correct cross-border operation of their payment systems.

Summing up, the state of readiness of the Italian banking and financial system can be deemed satisfactory; good use must nonetheless be made of the coming months to complete remediation projects and contingency measures must be prepared, above all to deal with "exogenous risks".

The Bank of Italy will not diminish its active commitment; it will continue to foster the circulation of correct information in the competent national and international fora.

## UPDATE OF ADJUSTMENT PROGRESS BY BANKS AND PAYMENT SYSTEM OPERATORS

**Table 1 - Banks: Percentage completion of Year 2000 project  
- mission-critical procedures -**

<b>LARGE AND MEDIUM-SIZED BANKS</b>	June			September		
	Average	Minimum	Maximum	Average	Minimum	Maximum
<b>Renovation</b>						
Applications software - developed in-house	94.12	60	100	99.69	90	100
Applications software - bought from third parties	94.09	70	100	99.79	90	100
Operating systems	92.50	50	100	99.00	80	100
Technological infrastructure	89.70	42	100	98.65	80	100
<b>Testing</b>						
Software - developed in-house	80.11	24	100	99.26	80	100
Software - bought from third parties	75.68	10	100	99.13	80	100
Integrated tests (simulation under future date)	53.77	0	100	95.72	50	100

**Table 2 - Banks: Cost of Year 2000 compliance**

	Banks	<i>of which: with in-house EDP</i>
<b>In millions of lire</b>		
Forecast cost	704,673	644,682
Actual cost	348,720	309,875
<b>Percentage breakdown</b>		
Technological infrastructure	32.56	18.97
Remediation of EDP procedures		
- Use of in-house resources	13.95	25.48
- Purchase or renovation of packages	27.34	23.04
- Consultancy and programming services	18.75	28.57
Other expenses (forms, training, legal, etc.)	7.40	3.94

**Table 3 - Applications centres and providers of payment system infrastructure:  
Percentage completion of Year 2000 project**

	June			September		
	Average	Minimum	Maximum	Average	Minimum	Maximum
<b>Renovation</b>						
Applications software - developed internally	98.75	95	100	100.00	100	100
Applications software - bought from third parties	100.00	100	100	100.00	100	100
Operating systems	97.50	90	100	100.00	100	100
Technological infrastructure	97.50	90	100	100.00	100	100
<b>Testing</b>						
Software - developed in-house	78.75	35	100	98.75	95	100
Software - bought from third parties	95.00	90	100	100.00	100	100
Integrated tests (simulation under future date)	67.50	0	100	80.00	20	100