

*CONVENZIONE INTERBANCARIA  
PER I PROBLEMI DELL'AUTOMAZIONE*

*ASSOCIAZIONE BANCARIA  
ITALIANA*

**SURVEY ON INFORMATION TECHNOLOGY MANAGEMENT  
IN ITALIAN AND FOREIGN BANKING GROUPS WITH A LARGE  
INTERNATIONAL NETWORK**

*July 2008*

The Interbank Convention on Automation (CIPA) is an association established in 1968 upon the initiative of Banca d'Italia, the Italian Banking Association (ABI) and some large banks with the aim of promoting projects for the development of interbank infrastructures and applications in the payment services system. An additional goal of the Association is conducting surveys on the implementation of Information and Communication Technologies in the banking system.

In recent years, the Convention has played an increasingly important role as an IT research center. In this field, its most relevant activity is the “Annual Survey on the IT Management in the Italian Banking System”.

This survey analyzes the economic, organizational and technical aspects of IT management in Italian banks (see [www.cipa.it](http://www.cipa.it), Documenti, Rilevazione dello stato dell'automazione del sistema creditizio). Its distinctive characteristics are represented by the wide sample, the accurate methods of inquiry and the long time-series of data produced.

The “Annual Survey” – published on the CIPA's website – describes the general trends and the most important phenomena observed in the banking sector. Each participating institution receives individual feedback in terms of its own IT costs ratio compared with the average ratios within the peer group (e.g.: IT costs-total assets ratio; IT costs-gross income ratio; IT costs-operational expenses; IT costs per branch; IT costs per employee). These ratios are calculated by merging the answers to the questionnaire with data obtained from the statistical reports of Banca d'Italia.

Comparisons are made with reference to different peer groups, identified using the following criteria: bank size (in terms of total assets); IT sourcing (outsourcing, in-house); company structure (individual bank or banking group).

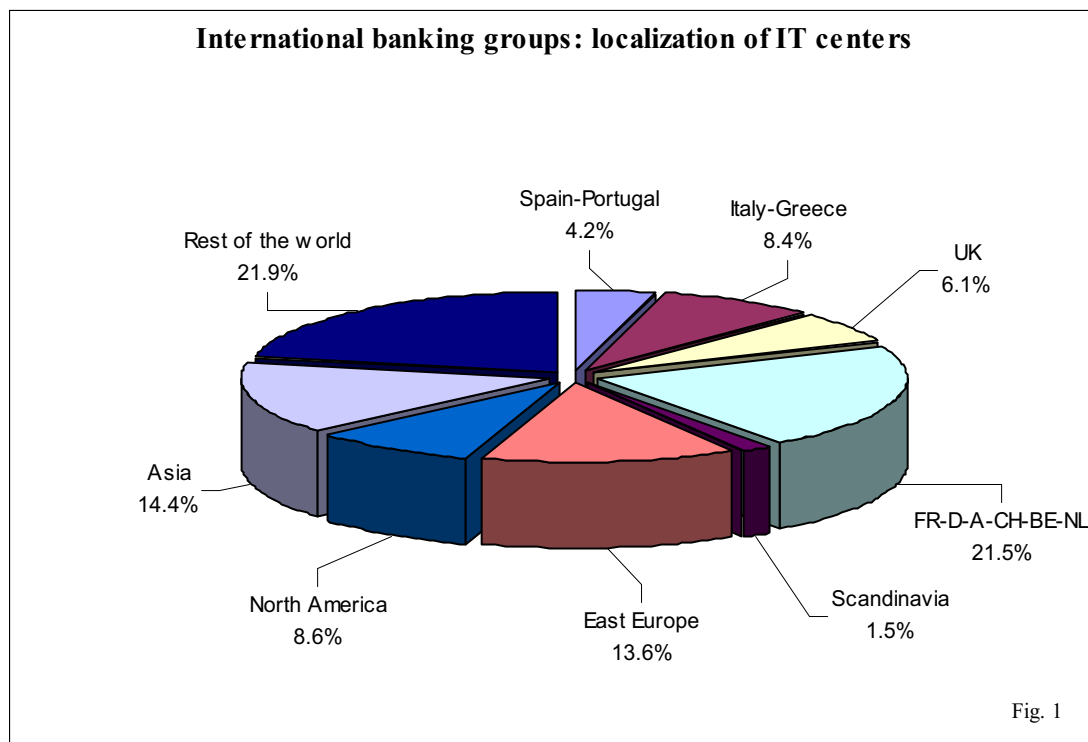
As the growing international presence of banking groups had suggested the opportunity to extend the annual investigation beyond the national borders, last year the Convention and ABILab – the R&D centre for banking technologies promoted by the Italian Banking Association – involved in the survey some of the leading European banking groups.

In the 2007 Survey, the foreign groups were reached by means of their Italian branches and subsidiaries, either through the CIPA or the Milan branch of Banca d'Italia.

## Main findings

In 2007, the survey involved twenty-one international groups (six based in Italy<sup>1</sup> and fifteen in other European countries).<sup>2</sup> Information was gathered about organisational and governance issues and the key economic aspects of IT in the groups.

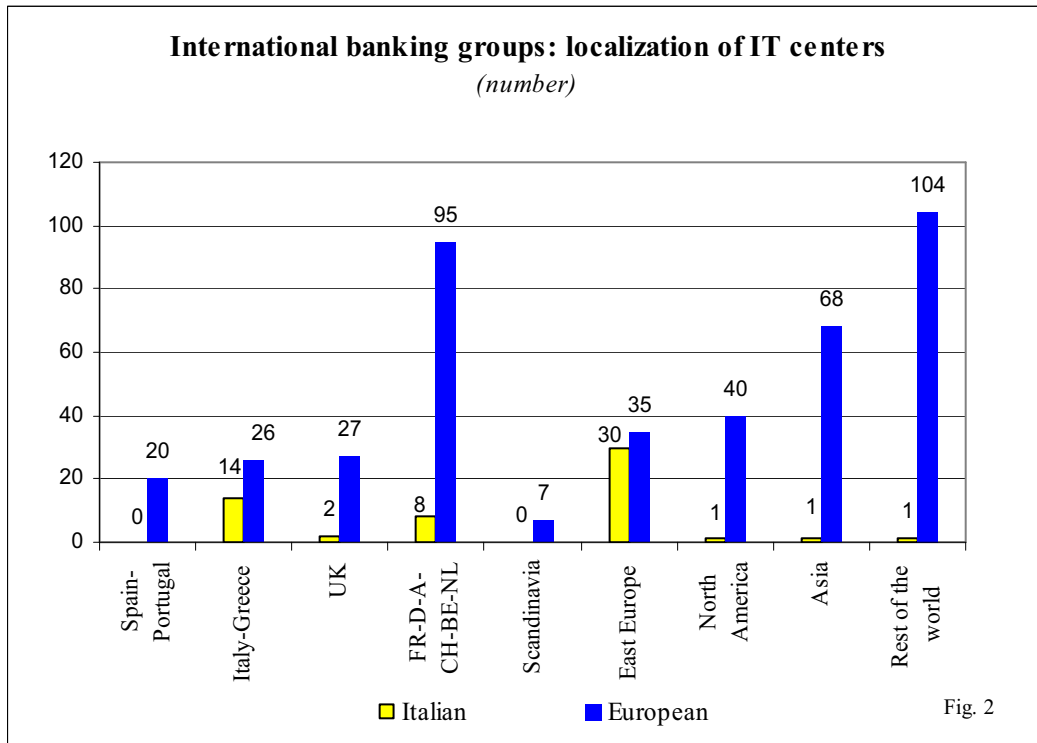
The first set of data collected relates to the geographic distribution of the “IT centers”. In this respect, it was recorded that beside the obvious prevalence of European locations, approximately 45% of the “IT centers” can be found in other continents (Fig. 1).



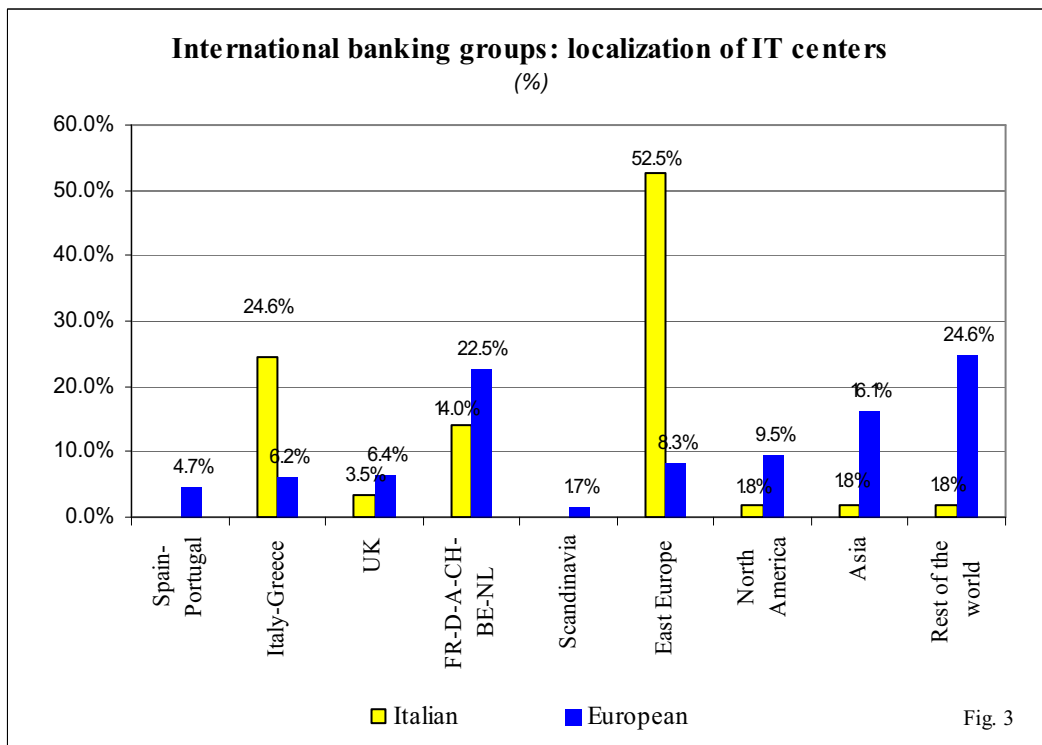
This depends on a number of factors, such as the location of the target markets, the extent of the group’s international presence and its size. Economic factors apply as well. Moreover, the organisational model followed for the “IT factory” (more or less centralised, see Fig. 4 - 5) also influences the number and distribution of the “IT centers” across the various regions (Fig. 2).

<sup>1</sup> Namely: Intesa Sanpaolo, Unicredit Group, Banco Popolare, Banca Sella, Banca CR Firenze, Veneto Banca.

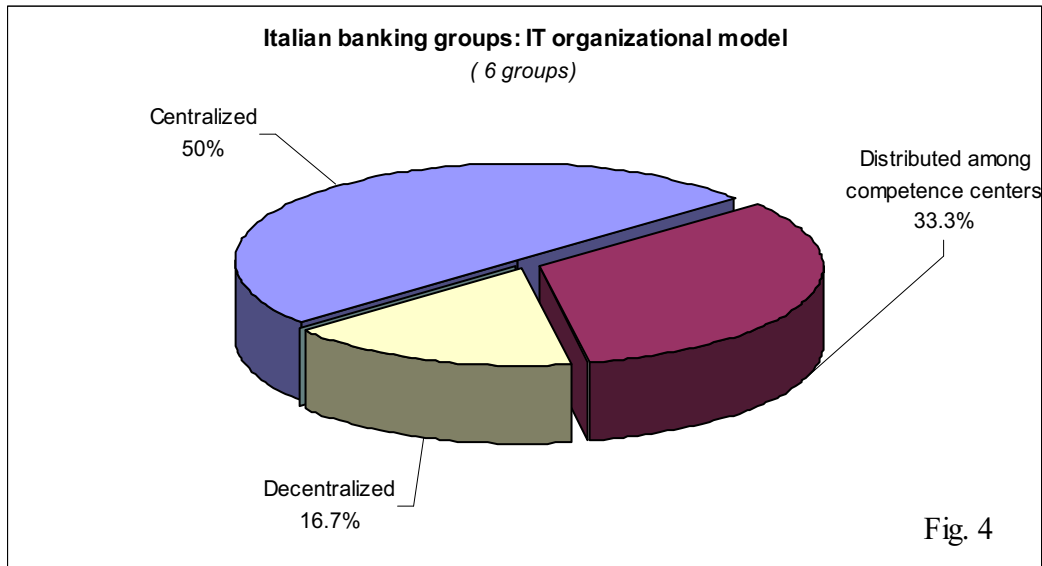
<sup>2</sup> Namely: Deutsche Bank AG (via Deutsche Bank SpA), BNP Paribas (via BNL), ABN AMRO Bank (via Banca Antonveneta), Crédit Agricole (via Cariparma Friuladria); Barclays Bank plc, Bayerische Landesbank, Credit Suisse, Commerzbank AG, The Royal Bank of Scotland plc, Banco Santander, Rabobank Nederland, Dresdner Bank Aktiengesellschaft, Banco Bilbao Vizcaya Argentaria, Fortis Bank and UBS, via the respective branches and subsidiaries in Italy.



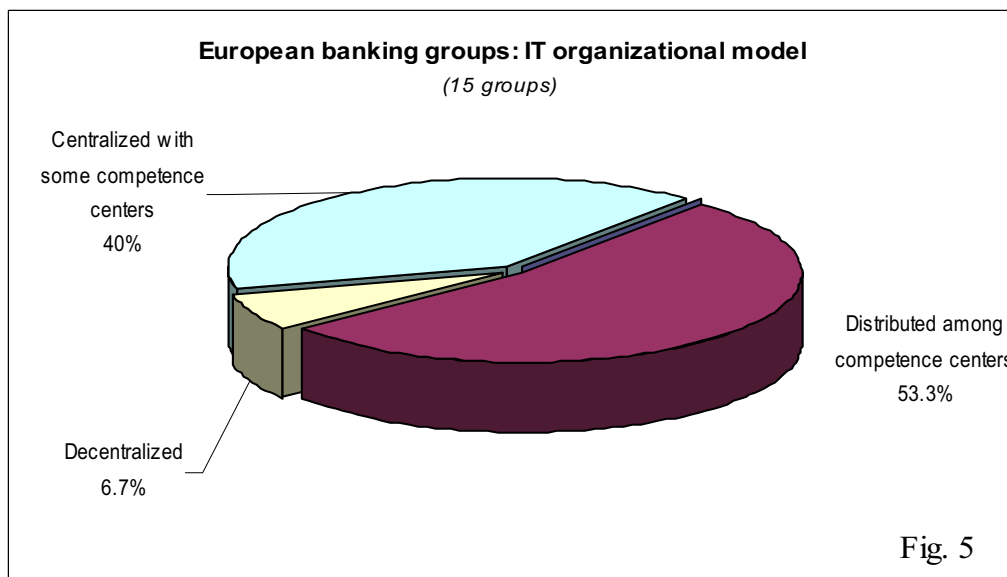
As for the Italian groups, “IT centers” concentrate mainly in Eastern Europe, where relevant take-overs have recently been made, and in the Mediterranean region. The foreign groups have a more evenly distributed network, being established also in other continents (Fig. 3).



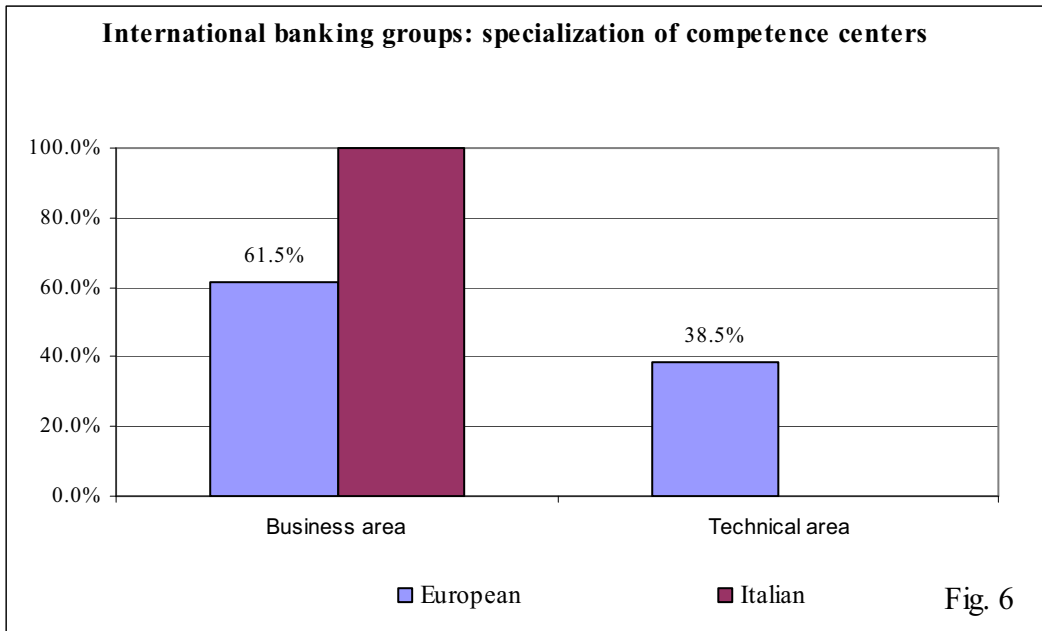
In turn, the structure of the group (more or less centralised) shapes the organisational and governance framework of the “IT factory”. In the Italian groups, the IT function is widely centralised; the two groups with the largest international network have opted for “competence centers”, specialised by business area (Fig. 4).



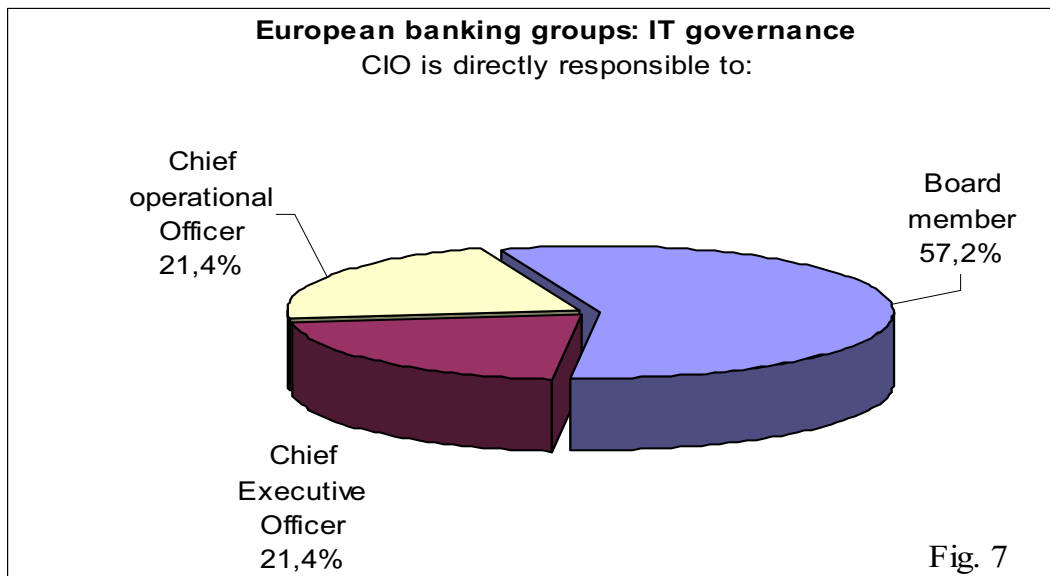
Foreign groups show a prevalence of competence centers and “mixed” model, i.e. centralised with a few competence centers (Fig. 5).



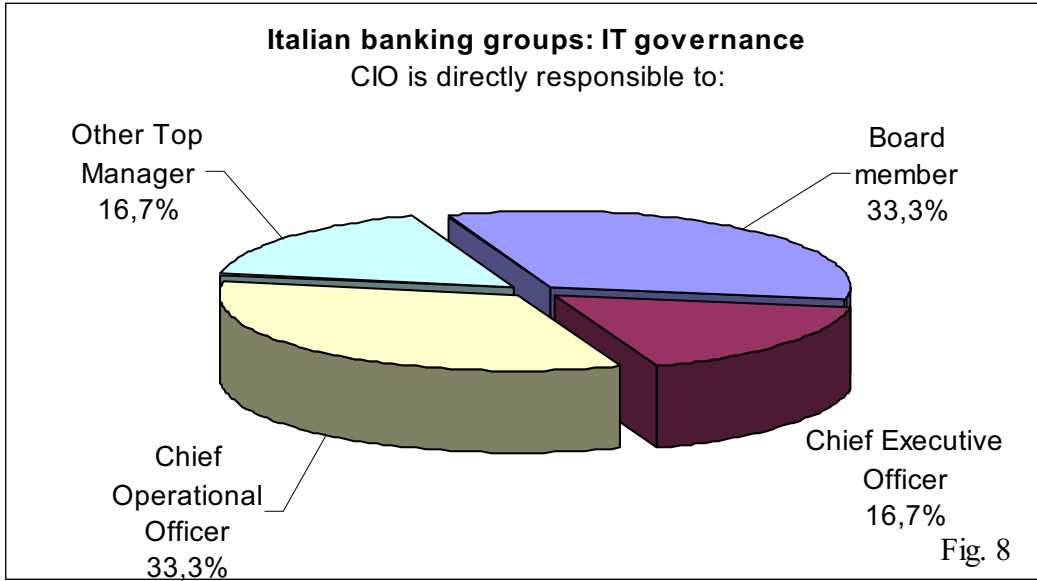
In foreign groups, competence centers are generally specialised by business area; in around one third of the cases, by technological sector (Fig. 6).



Concerning governance issues, the definition of IT strategies in the foreign groups sees a greater involvement of top executives than it does in the Italian groups: in 57% of the cases, the Chief Information Officer responds directly to a board member; in 21.4% of the cases, to the Chief Executive Officer (Fig. 7).



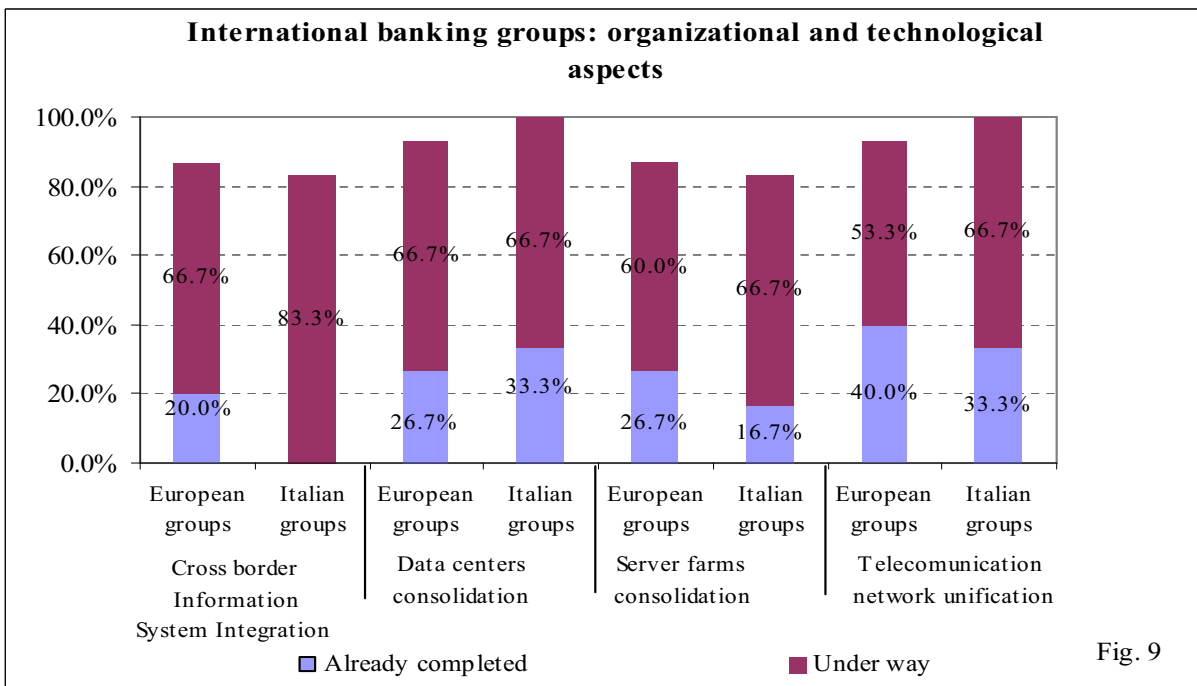
The above percentages go down to 33% and 17% respectively in the Italian groups (Fig. 8).



In half the Italian and in the totality of foreign groups (with one exception only), the “factory” provides cross-border IT services to the various business areas.

With reference to the consolidation and rationalisation of the IT infrastructure, it turns out that most Italian groups are currently integrating their cross-border information systems, consolidating data centers and server farms as well as unifying telecommunication networks.

The same activities are in progress or have been carried out in the past by foreign groups (Fig. 9).



Differences can be found in the kind of infrastructure selected for cross-border integration: while foreign groups are mostly mainframe-oriented (61.5%), Italian groups show a prevalence of open platforms (60%).

A further analysis was conducted with regard to the economic aspects of IT, based on the set of indicators generally used for the annual domestic analysis. These indicators compare IT-related costs to key operational values (total assets, number of employees on staff) and to profit and loss account values (operational costs, gross income). This information is complemented with data on productivity (in terms of total assets) and the share of technical staff on the staff as a whole.

Although the selected sample comprises institutions of different sizes and with diverse operational features, the present survey should provide a useful insight into IT management in the most prominent European banking groups (Table 1)<sup>3</sup>.

With the aim to ensure the greatest homogeneousness of the analysis, the groups which provided the requested quantitative data have been split into two subcategories according to their size (total assets). The first subcategory (“major”) is comprised of twelve groups<sup>4</sup>; the second (“other groups”) includes six<sup>5</sup>.

Based on the two sets of indicators shown in Table 2, it can be noticed that the “major groups” have roughly the same IT costs-operational costs ratio as the “other groups”, whereas the cost-income ratio appears to be lower; in addition, “major groups” show a higher IT expenditure per employee and a higher productivity per staff member in terms of total assets<sup>6</sup>; finally, they have a larger share of technicians on staff<sup>7</sup> (Table 2).

Five “major groups” and two “others” outsourced a given set of IT services to external providers. In one case, the related costs account for 50% of total IT costs.

The cross-border integration of information systems is more developed in the biggest groups: eight of the “major groups” reported costs associated with such activities amounting to 9% of their total costs on average; in the four “other” groups reporting such costs, these reached on average 3% of total costs.

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<sup>3</sup> All the information used in the present investigation were provided directly by the groups by means of a questionnaire.

<sup>4</sup> Namely: The Royal Bank of Scotland, Groupe Crédit Agricole, BNP Paribas, ABN AMRO, Unicredit Group, Banco Santander, Credit Suisse, Fortis, Commerzbank, Intesa Sanpaolo and Banco Bilbao Vizcaya Argentaria.

<sup>5</sup> Namely: Dresdner Bank Group, Bayern LB, Banco Popolare, Banca CR Firenze, Veneto Banca, Banca Sella.

<sup>6</sup> The IT cost per employee and the total assets per employee were calculated with reference to non technical staff.

<sup>7</sup> The staff employed in bank-owned IT companies is included.



## International banking groups: overview of IT cost

Ratios	All groups (18)	
	Average	STD / Average
<i>IT costs / Total assets (x1000)</i>	1.8	0.58
<i>IT costs / Operational expenses (%)</i>	12.2	0.28
<i>IT costs / Gross income (%)</i>	7.7	0.31
<i>IT costs / Employees (thousands of euro)</i>	17.1	0.53
<i>IT employees / Employees (%)</i>	6.3	0.60
<i>Operational expenses / Total assets (%)</i>	1.4	0.48
<i>Gross income / Total assets (%)</i>	2.4	0.52
<i>Cost-income (%)</i>	64.3	0.26
<i>Total assets / Employees (millions of euro)</i>	11.9	0.60
<i>Employees / Branches *</i>	22.3	0.60

\* 17 groups

Tab. 1

## International banking groups: overview of IT cost

Ratios	Major groups (12)		Others (6)	
	Average	STD / Average	Average	STD / Average
<i>IT costs / Total assets (x1000)</i>	1.6	0.47	2.2	0.69
<i>IT costs / Operational expenses (%)</i>	12.2	0.32	12.2	0.23
<i>IT costs / Gross income (%)</i>	7.4	0.38	8.3	0.10
<i>IT costs / Employees (thousands of euro)</i>	18.9	0.56	13.6	0.25
<i>IT employees / Employees (%)</i>	6.8	0.52	5.2	0.81
<i>Operational expenses / Total assets (%)</i>	1.4	0.46	1.6	0.53
<i>Gross income / Total assets (%)</i>	2.3	0.47	2.6	0.62
<i>Cost-income (%)</i>	61.3	0.27	70.4	0.23
<i>Total assets / Employees (millions of euro)</i>	12.8	0.54	10.2	0.79
<i>Employees / Branches *</i>	25.1	0.58	17.2	0.61

\* "Major groups": 11

Tab. 2