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Summary

This paper surveys the main features and causes of financial innovation in Italy during the last decade. It is argued that financial innovation has so far been patchy, with far-reaching changes in important areas, but has left other areas almost unaffected even though these have been highly innovative abroad. This is especially true of the corporate and banking sectors' fund-raising techniques and of bank lending. The factors that have prevented innovation in these fields are classified as influencing either the demand or the supply of new financial products and it is concluded that supply factors have been important and probably somewhat underestimated in the literature.

1. Introduction and summary (*)

Financial innovation is not a continous process, but comes in "waves" that transform the financial structure of a country. And it is not a new phenomenon: the latest wave is now sweeping the domestic monetary and financial markets of a number of countries, but if we look back to the sixties, we see a major success story in financial innovation with the formation of the euromarket, which is still the cradle of the most innovative financial techniques and products. In some domestic markets, such as Italy's - as we argue in section 2 - financial innovation was also important during the sixties. It is nonetheless true that the inflationary climate of the seventies, with the consequent increase in uncertainty and regulation as well as profound changes in income shares between sectors and categories, stimulated "product innovation" and more generally changes in the financial structure in almost every country. Another important agent of innovation has certainly been the spread of new information technology which has allowed "process innovation" in the financial industry, not to mention the non-financial company and even households.

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This paper surveys the main features and causes of financial innovation in Italy during the last decade. It is argued that financial innovation has so far proceeded irregularly, with substantial changes in important areas - particularly the birth of a Treasury bill market and considerable issues of floating rate securities by the Government and Special Credit Institutions - but it has left other areas almost unaffected even though they have been highly innovative abroad. Notably this is true of the corporate and banking sectors' fund-raising techniques and of bank lending. In some of these areas the Italian economy still lacks some structures that are pivotal to the financial system in most western countries.

The body of the paper is arranged as follows. Section 2 reviews the main trends in the development of the Italian financial structure during the sixties and the main forces that moulded the Italian economy in the seventies and eighties. Section 3 contains a description of the innovations introduced during the last decade in the financial system, together with an analysis of their causes. The reader who is familiar with these developments can skip this section and move to section 4 where the main causes of innovation are singled out and commented. It is concluded that, together with inflation and the rise in the public deficit, regulation was the main cause of innovation, but it is argued that regulation was not only important in Italy because it stimulated "circumventory" innovation. Indeed, the introduction of a regulatory framework can encourage - and in Italy has encouraged - the development of financial markets by reducing the risk implicit in financial transactions.

Sections 5 and 6 analyze the factors that prevented innovation in large sectors of the Italian financial

structure. These factors are classified as influencing the demand for new financial products or their supply and it is concluded that the importance of the supply factors has been somewhat underestimated. They nonetheless help to explain the reluctance of the banking system to innovate and the stunted development of the markets channelling funds directly from savers to the corporate sector. However, some of these factors have recently been removed and the rapid development of "new" intermediaries, such as the investment funds, as well as the growing interest of large and medium-sized companies in raising money in the capital market are encouraging signs of change.

2. Main real and financial trends during the sixties and the seventies

The Italian financial structure has inherited some special features from the past that are worth mentioning to put this discussion of recent developments and transformations in the right perspective.

A first important characteristic is the heavily skewed pattern (in comparison with other OECD countries) of sectoral financial balances. Looking at the ratios to GDP of the net financial saving (or indebtedness) of the different sectors of the economy, it appears quite clearly that during the last twenty years, apart from cyclical fluctuations which have had a specular influence on the behavior of the business and foreign sectors, the most important development has been the divergence between households' financial balances and the public sector's (fig. 2.1).

Such a system requires a high degree of financial intermediation. The limited development of the Italian capital market has determined a situation where credit institutions perform a predominant role in financial intermediation. This situation was strengthened by institutional and regulatory changes during the sixties and reached its climax in the mid-seventies when high and variable inflation rates and the collapse of the bond market led to an over-intermediation by the banking system that was reflected in the melting of the economy's financial assets into bank deposits. As we shall describe later, only in the second half of the seventies the Treasury increasingly developed direct links with private savers, floating short-term and indexed securities that found their way in the households' portfolios.

It is interesting to note that these features of the Italian financial system emerged during the sixties as a consequence of important phenomena in financial innovation. Between 1958 and 1962, the years of the Italian economic "miracle", the stock market expanded rapidly. The market value of traded shares grew from 7,000 billion lire in 1958 to 19,000 in 1962; the ratio between outstanding fixed-interest securities and shares decreased from .81 to .53 per cent. It seemed possible to develop a capital market alongside the existing financial intermediaries i.e. banks issuing deposits, and credit institutions specialised in medium and long term financing, issuing fixed-rate bonds.

After 1962, the changing economic climate, the nationalization of the electric industry and the less favourable fiscal treatment of dividends led to a collapse

of the stock market. The alternative was found in the development of a broad bond market from which public enterprises and special credit institutions took the funds necessary to finance investments. Private enterprises made little use of this market because of the less favourable fiscal treatment of their issues vis à vis those floated by public bodies and financial intermediaries and because they had the possibility to borrow at soft rates from special credit institutions. On the supply side the growth of the bond market was sustained by the policy, followed by the central bank up to 1969, of pegging the long term rate, thus granting to bond-holders a positive return in real terms. The reduced risk of capital losses increased the share of long term bonds in households' portfolios to the detriment of bank deposits and shares. The above mentioned ratio between outstanding fixed-interest securities and shares rose to 1 in 1966 and to 1.52 in 1970.

The "creation" of the bond market in Italy during the sixties is an interesting example of financial innovation mainly induced by changes in the institutional and regulatory framework. This market collapsed in the early seventies when inflation and exchange rate problems imposed a rise in interest rates and a change in the rules of the game of monetary policy. To cut a much longer and complex story short, this left - on the eve of the first oil shock -the Italian financial system on weak bases, with: a) enterprises heavily indebted to banks, both directly and via special credit institutions, whose bonds at that time were to a large extent bought by banks themselves, b) the public sector compelled to resort to the central bank and to commercial banks to finance its deficits, c) a strong preference of households for liquid

assets, namely - as a consequence of the absence of a money market - bank deposits on which banks were allowed to pay high and variable rates.

On the whole, in the early seventies, the traditional "imperfections" of the Italian financial structure had become more marked, which constituted a weak starting point at the beginning of a decade during which domestic and external shocks exposed the financial system to new and harsher strains.

The more difficult economic climate of the seventies and of the eighties is summarised by a few economic indicators:

	1960-69	1970-79	1980-84
	(percentage growth rates)		
GDP	5.3	3.3	1.1
Consumer prices	3.7	12.3	16.1
	(ratios to GDP)		
PSBR	2.8	9.8	14.3

The rise in inflation and in public sector deficits set the most severe constraints on the conduct of monetary policy in the last ten years. Balance of payments considerations and the necessity to cool down inflationary pressures induced monetary authorities to moderate the effects of mounting PSBRs on aggregate demand through higher and more flexible interest rates, thus allowing a rising proportion of the deficit to be financed by means of

Treasury debt instruments placed directly with private savers.

At the same time new and heavier administrative controls on bank intermediation were introduced. Ceilings on bank loans were first applied in 1973 and, with the exception of a short interval between 1975 and 1976, were maintained until June 1983. The system of reserve requirements on bank deposits was reformed in 1975 and made gradually more biting (the reserve coefficient increased from 13 per cent in 1975 to nearly 18 in 1984). The constraints on the banking system were completed by a portfolio requirement to invest a percentage of deposits in long term bonds issued by special credit institutions (henceforth SCIs), a measure aiming at channelling funds towards fixed investment and housing (1).

The forces that we have mentioned so far - inflation, public deficits and stricter monetary policy through interest rates and direct controls - moulded the evolution of the Italian financial structure during the last ten years; the forms taken up by this evolution are described in section 3.

3. Financial innovation in the last decade: a detailed description.

In the description of innovative processes it is essential to avoid partial interpretations that lay excessive emphasis on the actual changes, disregarding the reasons limiting the spreading of the process.

This requirement is particularly strict in the case of Italy because in this country financial innovation has involved some main changes of manifest importance in key

sectors of the financial structure, but it has also left untouched other areas, some of which have shown a high innovative drive in other western countries.

In this respect, this section attempts at giving an exaustive description of what has changed - and what has not changed - in the Italian financial system during the last ten years.

The material is assembled under two headings: the evolution in the credit instruments that are exchanged in organized markets (sect. 3.1) and the activity of the financial intermediaries (sect. 3.2).

Summary tables of financial assets and liabilities of the private sector will be commented in sect. 3.3 to provide, besides the details, also an overall view.

3.1 Innovation in monetary and financial markets

At the beginning of the seventies Italy was endowed with a rather developed and thick bond market, but was lacking in any form of monetary market in which borrowers and lenders could exchange short-term assets at rates closely reflecting the liquidity conditions of the economy. The only money market instrument was the Treasury Bill but it was available only in limited amounts held almost completely by the banking system. As we have already noticed, the inflationary outburst of 1973-74 put under severe strain the bond market and caused high capital losses to savers. It however represented the turning point for the strong innovative phase that followed. Table 3.1 summarizes the radical changes that accompanied this phase.

BOT and CCT. The most outstanding feature emerging from table 3.1 is the growth of the Treasury Bills (BOT= Buoni

Ordinari del Tesoro) and indexed Treasury Certificates (CCT= Certificati di Credito del Tesoro) markets. Their share out of the total instruments circulating in the monetary and financial markets (excluding shares) was equal to 62 per cent at the end of 1984 as against 20 per cent in 1975 (table 3.1) (2).

The process was fostered by the explosion in the PSBR (see sect. 2), by the outburst of inflation - which made unavailable the recourse to the bond market to finance the deficit - and by the committment of the monetary authorities to stricter monetary control aimed at curbing inflation.

Moreover, from a more structural point of view, the Bank of Italy supported the growth of the BOT market because the existence of an efficient money market was seen as a prerequisite for a more effective monetary control. In April 1975, the BOT auction system was reformed: the Bank of Italy that up to then had, as a practice, bought all the unsold bills, but was excluded from auction, was admitted on the same footing as the other participants and gained the possibility of affecting the interest rate. The number of operators taking part in the auction and the degree of competition among them increased.

The increasing supply of Treasury Bills was at first met by the availability, in bank portfolios, of funds that could not be invested in loans due to the ceiling on bank credit. The banking system also felt the need for an efficient instrument of liquidity management: this laid the foundations for the expansion of a fairly efficient secondary market. Starting from 1977 the purchases of BOT by households and firms became more substantial: they were favoured by the lack of other short term assets yielding, in a period of high inflation, positive real rates, by the

tax exemption and by the availability of a market (phisically constituted by the whole network of bank branches) on which the bills could be easily purchased.

The rise of the market for indexed CCTs followed a similar pattern. Indexed CCTs are debentures whose yield is linked to the BOT rate. They were firstly issued in July 1977 with a rather short maturity (2 years) to encourage the development of the market. Again, they were initially purchased by commercial banks and only after the 1981 reform, which linked their yield to the six month TB rate (instead of the previous average rate on 3 - 6 - 12 month bills), introduced a spread with respect to this rate and shortened the indexation lag, the CCT boomed also as an instrument of private saving. With the progressive success of this instrument came also a lengthening of the maturities (up to ten years) and a reduction of the spread.

The BOT and CCT markets were also the field of innovative techniques and experiments in market organization and intervention by the monetary authorities. In 1978 a centralised clearing system for the exchange of BOTs, CCTs and other bonds among banks was organized with the sponsorship of the Central Bank. A mid-month BOT auction was introduced in September 1981 and, from May 1982, the issue of CCT became monthly too. A major change in the intervention techniques occurred in 1979 when the central bank started to trade BOTs and CCTs with the banking system on a temporary base (repurchase agreements): this provided an additional and more flexible tool to finance the banks and absorbe temporary liquidity surpluses. Starting from July 1981 these transactions were settled through a system of "competitive" auctions in which the price was determined on the basis of the rates offered or required by different banks (3). From the same month the Bank of Italy also

suspended the committment to residually purchase the BOT unsold at the auction (the so-called "divorce" between the Bank and the Treasury), thus increasing the possibility of regulating the monetary base. The CCTs were also the object of two important forms of innovation: in February 1982 the first Treasury Certificates in ECU were issued, and in August 1985 they represented 2.6 per cent of outstanding CCTs. In August 1983 an issue of certificates with real indexation took place: the amount issued was however modest (1,000 billion lire) and their success limited (see Monti and Onado (1984), p. 171).

Other bonds. The second major feature emerging from table 3.1 is the increase in indexed bonds. The main cause of the adoption of indexation were the high and volatile interest rates that accompanied the inflationary outbursts of 1973-74, of 1976 and of 1979-80. This also caused the tendency towards maturity shortening which was well evident in the case of public debt.

Although the diffusion of indexation was initially slow (4), its success from the end of the seventies is undisputed. It has however been restricted to financial indexation: there have only been two cases of real indexation. The diffusion of other innovative techniques in the bond market has been limited too: bonds with warrant, i. e. with the right to purchase stocks or bonds at fixed conditions at some predetermined time, are in circulation since 1981 but have still a restricted market. Also deep discount, zero coupon, drop lock bonds and private bonds in ECU are still at an experimental level (5).

A final remark must be made: the role played by bonds in financing non-financial firms has remained modest throughout the period. Indeed, most innovation in the bond

market came from SCIs.

Certificates of deposit. Two assets can be classified under this heading: SCI and bank CDs. The CDs issued by SCIs are certificates with maturity between 18 and 60 months, sometimes with indexed coupon, sometimes with payment of capital and interest in a unique date (similarly to zero coupon bonds). Their growth, limited until 1981, speeded up after the law that allowed all SCIs to issue them. However, there is no secondary market yet on which CDs are traded and quoted daily.

The case of bank CDs is rather interesting: while abroad this instrument was introduced mainly to circumvent regulation, in Italy bank CDs were promoted by the monetary authorities at the end of 1982 by granting an interest rate on the compulsory reserves against CDs higher than that paid on reserves against ordinary deposits. The aim was to promote a higher stability of bank liabilities and to provide banks with an instrument to face the competition of the new financial instruments (BOT, CCT and SCI CDs); moreover, in so far as the CDs would compete directly with other money market instruments, the trasmission of monetary impulses to bank interest rates would have been speeded up. The growth of bank CDs, which are issued with 6-12-18 months maturities, has proceeded rather rapidly in the latest period: in June 1985 they represented 3.2 per cent of total bank deposits. However the instrument has so far been void of money market features: the after-tax yield on CDs has been considerably lower than the BOT yield for corresponding maturities (table 3.2) and the CDs have attracted funds from other deposits rather than from Treasury Bills. Also in this case a secondary market is virtually absent.

Bankers' acceptances. The market for bankers' acceptances has been subject to a phase of great expansion followed by a rapid fall (fig. 3.1). This evolution was mainly due to changes in regulation: in 1978 the stamp tax on bankers' acceptances was reduced from 1 per cent to 0,01 per cent. Bankers' acceptances, however, took off only in 1980, when the ceiling on bank lending became more stringent; the unregulated tax status of the interest on acceptances, which was virtually equivalent to tax exemption, also prompted the development of the market. The decline began with a series of measures first limiting the issue of acceptances quantitatively, and then regulating the tax treatment of interest payments. The removal of the ceiling on bank loans in June 1983 suppressed the last incentive to issue bankers' acceptances.

Titoli atipici. The relevance of "titoli atipici" (atypical debentures) lies in the fact that they virtually represented the only attempt to issue unregulated instruments of credit by new intermediaries. The term refers to a set of instruments of credit issued by non-bank financial firms and bearing a claim on the return of an investment. The range of investments financed in this way has been wide but has mainly concerned real estate or leasing activities. The development of "titoli atipici" was stimulated by high inflation: they offered the possibility of an (indirect) investment in real assets also to small savers.

The legality of "titoli atipici" has been largely debated before the 1983 law subjected their issue to the supervision of the CONSOB and of the Bank of Italy. In 1984, due to the crisis in the real estate market, one of the

major issuers of "titoli atipici" failed, and the entire sector began to subside.

Investment funds. The troubled case of "titoli atipici" can be easily contrasted with the smooth and rapid expansion of the new investment funds that began operating in Italy in 1984 (6). As for bank CDs, the turning point was a law that regulated the activity in this area and allowed the traditional intermediaries to set up financial firms offering the shares of investment trusts. At the middle of 1985, 37 investment funds, all open end unit trusts, were operating in Italy, having raised funds for 12,000 billion lire; most of these funds are invested in Treasury Bills and CCTs.

Stock market. The imperfections and narrowness of the Italian stock market is well known: in the last ten years the contribution of "fresh money" collected on the stock market from private savers averaged to only 5.6 per cent of total financial flows accruing to the business sector (table 3.3).

Few innovative developments had involved the stock market until 1985, the only relevant innovation being the introduction of the so called "saving shares", regulated in 1974 and favoured by a lighter tax treatment (7). In 1985, however the stock exchange has experimented a surge of activity. The entrance in the market of the new investment funds has led to a boom of stock prices with an increase by 43 per cent of the stock index in the first semester of 1985. Given the still limited amount of purchases by investment funds these increases may be interpreted as a proof of lack of market thickness, but it is conceivable that the presence of a more stable component of demand will

stimulate new issues; indeed in the first six months of 1985 issuing activity has increased by 20 per cent over the same period of 1984.

International capital movements. The trends shown during the last ten years by private foreign assets and liabilities have been heavily influenced by the administrative controls on capital movements introduced in Italy from the beginning of the seventies. Portfolio investments abroad by residents have been virtually prevented by the non-interest-bearing deposits required on these assets which has been only recently reduced. On the contrary, foreign liabilities have shown a remarkable growth especially during the eighties, rising from 5.1 to 11.2 per cent of private liabilities and representing the third most important source of funds after bank loans in lire and SCI long term loans (table 3.7). This increase was clearly influenced by the restrictive monetary policy of the last decade and specifically by the credit ceiling on bank credit which became more stringent between 1980 and 1982, the years when foreign credit rose very rapidly.

3.2 The innovative action of financial intermediaries

In this section we consider the innovation activity of financial intermediaries other than investment funds, focusing our attention on the developments occurred in credit markets.

Commercial banks. Table 3.4. shows the composition of the commercial banks balance sheet from 1975 to 1984. If compared with the large changes occurred in the financial markets, the stability of this composition is striking. Moreover, the major changes can hardly be attributed to

forms of innovative behaviour. We observe:

a) a fall in the share of loans over total assets brought about by the credit ceiling imposed from 1973 to 1983 and by the reduced dynamic of the demand for credit by firms during the last ten years (see section 5);

b) a recomposition of bank loans towards the foreign currency component; the steady growth of the foreign currency share has been sustained by the exemption of these loans from the ceiling (8) and by the compulsory component that the firms were required to take up in front of foreign trade credits. Foreign currency loans to residents, which already in 1967 represented 8.5 per cent of total bank loans, but fell to 1.5 at the end of 1975, reached 14 per cent of total bank loans in June 1985.

c) a rise of the net foreign debt among liabilities, that due to regulation, approximately matched the increase in foreign currency loans. The increase in gross foreign assets and liabilities was however much faster; Italian banks have entered deeply the new international financial markets, although they do not partecipate actively in the most innovative sectors of the euromarkets (9);

d) a rise in own capital, stimulated by increasing risks and made possible by high profits;

e) a fall in time deposits due to the general drive of savers towards more liquid assets and more recently to the competition of BOTs.

The new technique developed by US banks to raise funds have found limited scope; CDs have already been treated in sect. 3.1. The ups and downs of repos are revealing of the interrelations between innovation and regulation; commercial banks developed this fund-raising technique only after the Bank of Italy adopted repos as a short-term liquidity managment tool, making them familiar in the financial community. In a short period of time repos reached an estimated level of 15,000 billion lire (10) but their relevance was crashed when, in December 1982, they were subject to the reserve payment. Scarce have also been the changes in the technical forms under which bank loans are granted (table 3.5) with the exception of foreign currency loans, which partially represent a return to the past, and of syndicated loans, which, at the end of 1982, amounted to 3.2 per cent of total loans (11).

Also in interbank markets, innovation has been more the exception than the rule. Several studies (for example Pepe (1982)) have been produced to document the prevalence in these markets of bilateral agreements and of privileged financial channels that limit the mobility of funds. It is indeed significant that an overnight market has operated only in the last three years and has represented almost the only innovation in interbank business. The size of this market is however modest and not comparable to foreign examples (12).

Finally, with respect to the payment services offered by banks, innovation has so far been rather limited; the state of the Italian payment system is well described by the following quotation from BIS (1985): " Overall the Italian payment system continues to be characterised by the extensive use of cash, not only to settle small everyday transactions but sometimes also for high-value transactions.

(...) Credit cards and electronic payment systems have a rather limited market share".

In the last ten years, high interest rates on checking accounts and a general tendency towards a more sophisticated financial behaviour have however induced a fall in the use of cash (table 3.8). The installation of ATMs started in 1983 when a national interbank network (Bancomat) came into operation to provide depositors with the possibility of cash withdrawal from any ATM in the network. Although this system implies relevant efficiency gains, it can hardly be considered as a radical change in the payment system: it indeed stimulates the use of cash although it reduces its average holdings. A foreseeable development may however be the use of the same network to allow customers to make payments. So far, as the already mentioned survey reports: "the development of home banking and other forms of payment in a telematic context is still at a very early stage in Italy".

Special Credit Institutions. SCIs are financial institutions that, according to the 1936 Banking Law, are specialized in the long term end of credit and financial markets. Not surprisingly, inflation deeply affected the structure of their balance sheets. Both the asset and liability sides underwent a process of maturity shortening and indexation, which benefited also from the relaxation of the legal constraint on the issue of CDs. The evolution of the liability side (table 3.6) has already been discussed in sect. 3.1; the activity of SCIs in the financial market has been deeply innovative and has produced important results: SCIs' capacity of attracting private funds has recovered after the mid-seventies crisis and for the first time after the introduction of the compulsory purchases of

SCI bonds, private funds now exceed bank funds among SCI liabilities (Pontolillo, (1985)). On the asset side the main change is related to the growth of short term credit and to the adoption of variable interest rates.

Leasing and Factoring. A unified treatment of leasing and factoring is convenient because of the several common features presented by the evolution of these new channels of finance. In Italy, the recourse to leasing and factoring remained rather restricted until the end of the seventies (13). The ceiling on bank loans as well as certain tax benefits that may be connected to leasing stimulated their development (Mieli (1985)). After the removal of the ceiling, the activity of leasing and factoring firms has maintained high growth rates, although at the end of 1984 the total credit granted through leasing and factoring amounted to only 2.3 per cent of total private liabilities (table 3.7). Strong property links exist between traditional intermediaries (banks and SCIs) and leasing and factoring firms: moreover, most of the funds raised by these firms come from capital contribution or loans by traditional intermediaries.

3.3. The overall picture

The above description has presented areas of intense financial innovation together with areas resisting the introduction of changes. An overall summary on what has been quantitatively relevant can be based on the changes occurred in the balance sheet of the private sector (tables 3.7 and 3.8). The following features stand out clearly:

a) the major change that has affected the Italian financial

structure has been the birth of the markets for new Goverment debt instruments (BOTs and CCTs), whose share represented, at the end of 1984, more than a quarter of total financial assets, excluding shares, (fig. 3.2). While the creation of an efficient money market for Treasury Bills has simply filled a gap, the new Treasury Certificates have represented a more innovative field allowing for several experiments in maturity, form of indexation, interest payments, currency of denomination, and procedures of issue;

b) the spreading of indexation and of maturity shortening to most financial assets and liabilities, of which BOT and CCT represent special cases, is the second major innovative aspect. It should be recalled that this process has not implied relevant changes in the forms in which banks raise and lend funds. On the other hand, a pionieering activity in this field has been performed by SCIs, which have applied new techniques, developed in parallel with other countries, to the issue of bonds.

c) the composition of private sector liabilities has remained relatively stable, the main change being the larger recourse to the international market; the leasing and factoring contributions are still thin, the recourse to the capital market (shares and bonds) has not so far shown appreciable improvements, a commercial paper market is absent. The process of securitization of private debt, which has involved many financial structures, is still virtually unknown in Italy. As a matter of fact, even after ten years of credit ceilings, the share of commercial bank loans over total credit has shown a surprising stability;

d) in their first year of existence, investment funds have shown a relevant capability of growth; the conditions exist for this new intermediary to become in the future one of the protagonists of the Italian financial scene.

4. Main causes of financial innovation

Similarly to the synoptic tables presented by Silber (1983) or Van Horne (1985) relative to the United States, table 4.1 provides a compact picture of the main innovations occurred in the Italian financial system during the last decade; on the basis of the analysis of sect. 3, eight exogenous causes of innovation have been reported together with the five sectors that introduced the new financial instruments.

It emerges from the table that, by far, inflation and the high variability of interest rates are the most frequently quoted causes of innovation. Indeed, they are, to a very large extent, directly responsible for the spreading of floating rate debt and for maturity shortening of the instruments exchanged in the markets and offered by intermediaries. The relationship between innovation and uncertainty on prices and interest rates is well known (see for example Akhtar, 1983) and in this respect Italy shares the experience of many other industrialized countries.

The surge of the PSBR is the obvious cause for the rise of the BOT and CCT markets, the most important innovation of the last ten years; inflation and interest rate variability, together with the policy decision of limiting the monetary financing of the deficit, forced the adoption of new forms of financing of the growing PSBR. Incentives, in terms of tax exemption and measures adopted

by the central bank to favour the birth of the new market, are also listed as relevant causes. It must be stressed that the development of the BOT and CCT markets can be seen as an indirect cause for other innovations because it determined a general improvement in the efficiency of financial transactions which encouraged the introduction of new instruments and procedures. This is one example of the chain reaction that often characterizes financial innovation phases, as experienced by various countries (14). Finally, policy action, in one of its three possible aspects (harsher regulation, removal of regulation and incentives) affected almost all listed forms of innovation.

Policy action is only partially a recognized cause of financial innovation; indeed, most studies consider harsher regulation to be among the main determinants of innovative developments in the financial structure (for example, Johnson (1985)) and some authors even view it as basically their only cause (Grenbawn and Haywood (1971)). The development of new financial channels as a reaction to regulation has been observed in Italy too, especially in response to the ceiling on bank lending and to the increasing reserve requirement on deposits. The ceiling on bank lending in lire stimulated the growth of bank loans in foreign currency, of short term SCI loans, of bankers' acceptances, and, to a lower extent, of leasing and factoring. It was also partially responsible for the increase in the share of foreign debt out of total private liabilities from 5.1 in 1979 to 11.2 in 1984 (table 3.7). The rising reserve requirement on bank deposits prompted the surge of repos and generally contributed to the disintermediation of the banking sector in favour of the assets offered by other sectors.

Faced with these developments, the monetary

authorities intervened by extending the regulation to the new instruments whenever they represented a serious threat to the achievement of policy targets. This was notably the case of bank loans in foreign currency, of bankers' acceptances and of repos. For "titoli atipici", the intervention aimed mainly at the savers' safeguard, although the central bank was attributed powers to ration new issues. The surge of these alternative channels of finance was however a relevant cause for the abandonment of the ceiling on bank loans, thus confirming the difficulty of imposing regulatory constraints for prolonged periods of time.

The link between innovation and policy action is not however limited to the rise of new financial channels aimed at circumventing regulation, as it is also evidenced by table 4.1; the Italian experience is a good example of the existence of other aspects which have been sometimes disregarded in the recent literature on the subject. Clearly, policy action can influence innovation through incentives and the removal of previously binding constraints. For example, in Italy this has been the case of BOTs and CCTs, saving shares and of bank and SCI CDs. What is most important, however, is the fact that regulation, even when is not accompanied by incentives may generally encourage the development of financial instruments.

There are at least three ways in which regulation can protect the birth of a financial market:

a) it can reduce the riskiness of trade: in fact, in financial markets, where the quality of the goods exchanged is often not immediately perceivable to all the agents involved in the transaction, the introduction

of a regulatory framework, specifying common standards and guaranteeing minimum levels of trustworthiness, may reduce the riskiness of trade (Gorton (1980) and Goodhart (1985)); indeed, this has been the main contribution to the development of markets given by public agencies such as the Securities and Exchange Commission in the USA, the French Commission des Operations de Bourse or the Italian CONSOB which was established in 1974 to supervise the stock market (15);

b) the organisation of the market for certain financial assets can equally be carried out by public authorities; as a matter of fact, in some European countries even the Stock Exchange is a public institution (this is the case of Italy);

c) finally, regulation can reduce an undesired excessive competition that can potentially undermine the rise of a new market; this link explains why some innovative sectors (for example factoring and leasing in Italy) have frequently demanded the introduction of a regulatory framework.

The relevance of this aspect of regulation (which we may label protective regulation) has been clear in the Italian experience, especially with reference to the first point mentioned above: most new financial instruments have been introduced in Italy by legislation specifying the standards discussed under point a); the most recent example is provided by the new investment funds whose capability of growth is easily contrasted with the stunted development of new but unregulated financial instruments such as titoli atipici (16).

5. Innovative failures in the private and banking sectors.

A necessary complement to an analysis of financial innovation causes is the review of the reasons why some sectors presented a low innovation propensity. Indeed, table 4.1 and the evidence presented in sect. 3 point out that financial innovation in Italy has so far left untouched large areas of the financial markets. Among final users of financial saving, the public sector was highly innovative as witnessed by the abundance of the new instruments (BOT, CCT in lire and in ECU, real indexed CCT) and tecniques (innovations in the auction systems, repos) introduced. On the contrary the innovative activity of the private sector has been limited to few issues of indexed bonds and to the so called "titoli atipici".

Among financial intermediaries SCIs have by far played the protagonist part with the banking system just walking on the stage of financial innovation. Clearly, SCI assets and liabilities were put under more severe strain due to their long term nature. However, also the banking system had to face dramatic changes in the financial environment where it was operating, in particular in terms of increased regulation and of competition of new financial assets. Yet, the innovative capacity of Italian banks to offer new products, appears at first glance to have been moderate, especially when compared with the capacity of other banking systems to react to similar pressures (17).

In this section the innovative failures of the private and banking sectors are explained in terms of contingent reasons (notably the "innovative crowding out" of the private sector due to the high PSBR of the last ten years) and of specific characteristics of the Italian financial and industrial structure (technological gap, a

low propensity to issue shares, the typology of bank accounts).

In the following section we discuss a more general explanation in terms of the influence between the legal system of a country and innovation capability in financial markets.

Innovative crowding out. The need to finance an increasing deficit, without loosing the control of aggregate demand, forced the monetary authorities to offer high interest rates on public debt. In the last years the yield of tax-exempt Government securities has always been the highest among financial assets, especially with respect to bank liabilities, even if compared with the top rate on deposits (table 3.2). The high level of interest rates contributed to slack private demand, the usual crowding out effect, but was also probably responsible for the lack of private sector financial innovation. In other words, while some competition stimulates innovation, too much competition makes innovation useless. This is particularly true for the banking system penalized by both a high tax on deposits (25 per cent from 1983) and an increasing reserve requirement.

Technological gap. In industrial economics, this is among the main reasons for the lack of innovation. In the financial case, it may explain the lags with which Italian banks have followed the American experience in the area of payment systems. The gap is however wider in the use of the new techniques, than in their availability. Indeed, high bank profits have allowed investment in new equipment (including hardware and software) in the last years (18) and, in this respect, the gap seems now filled (19).

Supply factors. The limited development of some sectors of the Italian financial system have often been explained in terms of demand factors. For example, the failure of the stock market, and generally of a long term private securities market, to develop, has been again interpreted in terms of a high liquidity preference on the part of Italian households. Demand factors are certainly important, but too little relevance has so far been given to supply factors, i.e. to what reduced the incentive or the need for the banking and firm sectors to innovate.

Consider first the banking sector. Apparently the external changes (inflation and the competition of new public debt instruments) should have required a swift reaction, at least a serious attempt at innovating. Two facts should however be considered. First, in Italy, most bank accounts bear variable interest rates. On the asset side, 63 per cent of bank loans in lire are represented by overdrafts on which interest rates can be renegotiated at any moment. On the liability side, variable interest rates have always been paid on both current and savings accounts; indeed the function of these two instruments was almost the same given that most savings accounts have no withdrawal limit (20). On the other hand, the imperfections existing in the deposit market (especially the lack of information) allowed for the banking system to differentiate deposit rates without having recourse to new technical forms (21), higher rates being paid on larger accounts and to more sophisticated customers. In this respect it has been argued (Vaciago (1982)) that the real innovation in the banks' fund-raising techniques came in 1969 when the cartel on deposit rates was broken and the banks offered an asset

with optimal combination of liquidity, risk and yield, which indeed resulted "unbeatable in the first half of the seventies".

The second factor that explains the lack of innovative pressure on the banking system emerges by looking at its profit and loss accounts in the last decade: table 5.1 shows an increase of gross income and profit during the years of higher disintermediation, a remarkable performance for an industry that lost such a large market share in favour of BOTs and CCTs. To explain this performance, a closer look to the composition of revenues is convenient: from table 5.1 we observe the increasing share of the revenues from services, especially the income from security transactions. Indeed, Italian banks act virtually as the only intermediaries for the purchase of BOTs and CCTs - or of any other financial asset - by households and firms. In this respect, they maintain a sort of monopoly due to the fact that no other financial institution has at its disposal a framework of branches comparable with that of the banking system (22). Until this monopoly is not broken, for example by a door-to-door sale of financial assets, the banking system will be partially protected from the appearance of new financial instruments, although it may be forced to shift towards a more service-oriented activity.

Let us turn now to the firms sector. The lack of direct channels of finance from savers to firms has been explained in two ways, and, we tend to believe that the truth lies in the middle. There are demand factors: the tax disincentives on commercial bills and on shares, the lack of a real protection against inflation provided by investment in shares during the first half of the seventies (fig. 5.1) and the consequent high liquidity preference of

Italian households. According to this view, innovative developments could therefore be attained, for example, by means of tax measures and by favouring the birth of new intermediaries (merchant banks and investment and pension funds) that would channel savings into the stock market.

The opposite view, which stresses the importance of supply factors, is synthetically described by Onado (1985): "Indeed, our stock market has never taken off not because of savers preferences, but of firms preferences, who traditionally privileged self-financing and, among external sources, bank and SCI loans, possibly granted at subsidized rates. Historically, firms refused forms of finance that were at the same time "external" and through shares. In other words, the stock market was seen more as a menace to the control of the firm than as a channel to attract permanent financial resources ..." (23).

To the reasons adduced by Onado (fear of take-overs) it should be added that the model of industrial development followed by Italian firms during the seventies certainly did not favour, or indeed excluded, the recourse to capital markets. The model, which has been nicknamed "industrialization from below" hinged on decentralization and on the rise of small scale industries, of "the millions of small retail traders who have sprung up everywhere and the millions of "self-employed professionals" who have flourished to assist the small entrepreneur and the small trader" (De Cecco (1983)).

The prevalence of this form of industrial evolution also contributed to the steady fall in the demand for credit from the private sector observed during the seventies, given the higher relevance of self-financing for small firms. Moreover, due to indivisibility problems and to the difficulties of systematically spreading information on

capital markets (Klein (1973)), small firms are virtually prevented from floating not only stocks, but also other securities, which abroad represented the main field of financial innovation for non-financial firms.

The fall in the credit-to-output ratios was however also due to the prolonged restrictive monetary policies of the last decade. Figure 5.2 documents the fall in the ratios between three definitions of credit aggregates and the value added of the private sector. Clearly, Italian firms undertook a process of credit saving which is manifested in the fall in credit aggregates relative to output during the periods when monetary policy became more stringent and ceilings on bank credit were imposed. After each fall, the ratios stabilized around the lower level previously reached. This process of credit saving, which found a counterpart in the fall of stockbuilding and improved liquidity management, helps explaining why Italian firms where little innovative in their fund-raising techniques, as much as the rise in the PSBR explains why the public sector was innovative.

If these are the reasons for the limited growth of the stock market what are the prospects for the future? In the above quoted article, Onado stresses that recently the attitude of Italian firms towards the stock market may have changed especially due to the high cost of credit during the eighties. This may prelude to a change in the attitude of the firms sector towards financing through market instruments.

Signs of these new developments of the stock market are already visible; as mentioned in section 3.1, investment funds have begun to play a role as institutional investors in this market. A law on merchant banking is being discussed in Parliament, as well as a bill regulating venture capital

activites. The number of firms "traded" at the Stock Exchange is still small but it has sensibly increased during 1985, under the supervision of CONSOB. Although it is still premature to foretell a full development of the stock market (24) - there have been other periods of boom in stock prices and issues - there are clear signs that this structural gap may soon be filled, as both the demand and supply factors that prevented innovation are being removed.

6. Legal system and financial innovation

There are few fields in which the legal and economic aspects interact more than in financial innovation.

The effect on innovation of specific regulations, whether entailing a constraint or an incentive, is obvious, and, in this respect, Italy is a good example. The arguments used in sect.4 to explain how regulation encouraged innovation can in fact be applied here to explain the lack of innovation. In particular, the delays with which some sectors of financial activity have been regulated are certainly among the causes of the missing innovation. The most topical example is given by the law that introduced in Italy the investment funds after 22 years since the first bill was discussed in Parliament. Similar difficulties are being experienced with the bills on merchant banking and on venture capital, yet to be approved. Moreover, the impending approval of a law introducing innovation tends to impede other forms of innovation that may eventually be cut off when the law is passed. Tax disincentives also operated towards the firms sector to discourage the issue of shares and other financial instruments, especially commercial paper. Together with the rising reserve requirements, they were also responsible for the loss of competitiveness of

bank deposits.

Besides the above mentioned specific links, it has been suggested that from a more general viewpoint a country's legal system - i.e. the sum of its legal principles, procedures and provisions - can influence the capability of the financial system to evolve. In particular, comparison of the far-reaching innovative changes in the financial system of the US and the UK, (25) both of which are Common Law countries, with the relatively static performance of Civil Law European countries (26), including Italy, may suggest that the Common Law grants businessmen greater freedom by facilitating the use of new forms of contractual arrangements in financial transactions as well as the emergence of new intermediaries:

"All this was possible because of the Common Law approach, according to which "all that is not expressely forbidden, is permissible while the Roman Law tradition is, as it is known, rather the opposite, that is to say, that what is permissible is expressely identified by the written law. In the case of the U.S., the Common Law and Roman Law tradition have coalesced and this allows the cognoscenti to play a "hide and seek" game with the law keepers which is very profitable, as the sanction can apply to new realities only ex-nunc, and by that time the able are somewhere else trying a new trick. Most of what has lately gone under the name of "financial innovation" originates from this juridical peculiarity" (27).

A thorough analysis of this hypothesis is beyond the scope of this paper and accordingly we shall confine ourselves to a few comments:

a) several important legal principles that are typical of Common Law systems undoubtedly lend themselves to

innovation in the economic and especially in the financial field. First and foremost there is the trust principle (28), i.e. the management of other people's money. This is not foreseen in Roman Law but has nonetheless become extremely important in the activity of securities markets. On the other hand, however, some Common Law constraints limit parties' freedom to do business to a greater extent than Civil Law systems. For instance, corporations' freedom of action is strictly determined by their charters; the disadvantages of charter restrictions and their effect on trading have generally been attenuated in Common Law systems only by general provisions expanding the scope of actions permitted to commercial companies (29).

b) while the absence of regulations specifying what is permitted is almost inherent in Common Law, the derogations to this principle in the economic field are, of necessity (30) very common. The regulation of economic transactions by law is the rule rather than the exception.

c) in even more general terms, while in Common Law the absence of regulation is an implicit recognition of the parties' contractual freedom, in Civil Law this freedom is explicitely provided, in Italy by Article 1322 of the Civil Code. Thus, whenever doubts have been raised about the legitimacy of a new financial instrument, they have always concerned a conflict with the existing legislation (31) and not the abstract possibility of creating new financial instruments. A good example is provided by the discussion on "titoli atipici", which actually circulated freely in Italy for nearly six years before being

regulated.

Thus, the fact that the Common Law is generally accepted as allowing more innovative behaviour than the Civil Law does not necessarily have practical consequences. What, then, is the explanation for the stronger innovative propensity of Anglo-American financial systems? Here, we suggest a tentative answer, in terms of the attitude of Anglo-American countries, and especially the US, to limit Government intervention in economic and, more generally, private affairs. This attitude is clearly reflected in many aspects of the political and legal systems in America. In financial matters, the desire to restrict Government interference in private affairs has not however implied a lack of regulatory powers, but it has influenced the form and the extent of these powers, with respect to European examples. Thus, the supervisory activities of the SEC or of the Comptroller of the Currency are far from being ineffective; they both have a significant degree of administrative and rule-making powers, but these are limited by the law.

By contrast, the distinguishing feature of the European and, notably, of the Italian case are the discretionary powers conferred on the monetary authorities. In the 1936 Banking Law, which in Italy is still the principal act regulating the relationships between the monetary authorities and the financial system, "in addition to provisions with a well-defined and limited legal scope there are others that confer responsibility in certain matters, with regard to which the authorized body from time to time specifies the scope of a directive, order or provision" (32).

Thus, just to provide an example, the definition of the financial institutions subject to the banking law, not only lays down a list of bank categories, but also goes on to an all-embracing finale covering: "...banks and credit firms in general, however they may be established, that take sight, short-term, savings or current account deposits from the public or any other such deposits of whatever form or name" (33).

Under these conditions, forms of financial innovation aimed at circumventing some binding constraint come up against the ability of the monetary authorities to react swiftly with new and wider regulations: the story of bankers' acceptances and repos is a good example. The "hide and seek" game between innovator and monetary authority recalled by De Cecco (1983) becomes much more difficult for the former when the latter is able to remove not one hiding place at a time but all (or most of them) at one stroke.

Notes

(1) For a more detailed discussion of the evolution of methods and instruments of monetary policy in Italy during the last decade see Caranza, Fazio (1983).

(2) It should be noted that more than 60 per cent of BOT in circulation at the end of 1975 were held by the Central Bank.

(3) In May 1983 the competitive method was extended to the primary market for 3 and 6 months BOT.

(4) The first indexed bonds were issued in 1974 by ENEL, the public corporation that manages the nationalised electric sector. The adoption of indexation by SCIs, which are the main issuer of bonds besides the Treasury, was not initially felt as compelling due to the portfolio constraint that obliged commercial banks to invest a rather high proportion of their deposits in SCI bonds.

(5) Convertible bonds are worth a separate comment: in spite of the more favourable tax treatment introduced in 1974, this instrument still plays a minor role in the financial market: it indeed shares with the stock market serious problems in attracting private saving.

(6) Before 1984, 10 foreign Investment trusts had been authorised to operate in Italy. The fund raised by these trusts grew at very slow rates and they even presented negative growth in several years.

(7) Saving shares do not give the holder voting rights, but they guarantee a minimum yield of 5 per cent of face value and a total dividend at least 2 points higher than ordinary shares. There have been only 40 issues of saving shares; in terms of flow of funds, they have been substantial only in 1981, in connection with the boom of stock market prices.

(8) Foreign currency loans were subject to a distinct ceiling in 1981 and 1982.

(9) This subject is dealt with in a forthcoming paper prepared by a group of experts at the B.I.S. The study considers four recent innovations on the Euromarkets (NIF, swaps, foreign currency options and forward rate agreements); in none of these areas Italian banks

appear to be much active. On the contrary, Italian non-financial firms are deeply involved in these operations.

(10) Monti-Onado (1984).

(11) See Rettaroli (1984).

(12) See Banca d'Italia, Relazione annuale sul 1984 (p.187). There have only been two issues of interbank CDs, one in 1982 and one in 1985.

(13) However, the first firms in this area began their operations in 1963.

(14) See, for example, the case of Sweden where the introduction of bank CDs primed the development of the money market (Wissen (1985)).

(15) It is of course questionable whether the need for a law fixing common standards of financial instruments is more felt in Italy than in other countries, especially the Anglo-American countries where a sort of mistrust vis-à-vis the public sector is coupled with a higher trust in private agents. We do not rule out this possibility; however public regulation designed to guarantee small savers and reduce the risk of financial investment is a common feature of both European and Anglo-American countries.

(16) The favourable attitude maintained towards innovation by the Italian monetary authorities in the last ten years has been explicitly inspired by the attempt at increasing the efficiency of the system and the level of competitiveness by multiplying the instruments of credit and the number of operators. This is also confirmed by the policy of authorization to the opening of new bank branches followed by the Central Bank, which led to an increase of the number of bank branches per million of residents from 201 in 1969, to 253 in 1984.

(17) The obvious term of comparison is the American banking system that faced competition of money market mutual funds by offering new deposit instruments, (NOW, Super-NOW and money market deposit accounts being in the forefront). It is true that American banks were able to react with a full scale effort only after the 1982 Garn-St Germain Depository Institutions Act deregulated interest payments on a large share of

deposits. But Italian banks have never been limited by interest rate regulation; yet, no relevant change has occurred in their fund raising or lending techiques in the last ten years.

(18) See Convenzione Interbancaria per i Problemi dell'Automazione (1983).

(19) A still persistent gap is nevertheless registered in the degree of financial sophistication in some Italian areas where even BOTs and CCTs represent new instruments. The disintermediation of the banking sector, for example, has been much more pronunced in the Northern than in the Southern regions.

(20) Significantly, the payment of flexible interest rates on deposits has spread to nearly every financial system in the eighties. Some authors (for example, Revell (1985)) have argued that the outcome of this process will be the so-called "Swedish account", namely a unique account that will serve both as a payment instrument and as a store of value, which seems a fair description of the main features of Italian bank deposit accounts.

(21) See Cottarelli, Cotula and Pittaluga (1985).

(22) The situation is quite different in Great Bretain, for example, since the branches of Building Societies are as widespread as those of banks.

(23) On this point, see also Della Torre (1982).

(24) See, for example, the relevant opinion expressed by the former president of the CONSOB, Rossi (1984).

(25) The changes under way in the London Stock Exchange, one of the most traditional English institutions, are very substantial; see Terry (1985).

(26) France and Germany are important examples; see BIS (1984).

(27) See M. De Cecco (1983), p. 14.

(28) As recalled in the Encyclopaedia Britannica, "the trust is one of the most comprehensive institutions of modern law, being rivalled in scope and flexibility only by the limited company, or corporation. Although there are many different kinds of trusts, they all

include the feature that a person who is called the trustee has vested in him property that he is bound by an equitable obligation to hold and, in many cases, to administer on behalf of other persons or institutions, who are termed beneficiaries, though the trustee himself may be one of them. (...) An increasing number of the world's legal systems now recognize, in a variety of forms, the institution of the trust; but for many centuries its development was one of the principal achievements of Anglo-American law".

(28) A second example concerns the institution of consideration, whereby contracts are not binding that do not foresee the performance of an act by both parties. Theoretically, this implies, for example, that it is impossible to have binding offers or deferred payment conditions without the counterpart bearing a charge.

(29) Of necessity because a sentence under Common Law creates a precedent with retroactive effect since it does not create a law but "enounces" it. In more practical terms, the principle of retroactivity would undermine economic relationships. Hence the need for government regulation to prevent judges from making innovative interventions.

(30) The law regulating "titoli atipici" gave rise to further discussion as to its regulatory effects in the light of the possibility of conflict between existing regulations and new forms of securities. Cfr. the bibliographical notes in Capriglione and Mezzacapo (1985).

(31) See P. Vitale (1972).

(32) RDL n. 375, 1936 ("legge bancaria"), art. 5.

Table 2.1

SECTORAL FINANCIAL BALANCES AS A PERCENTAGE OF GDP

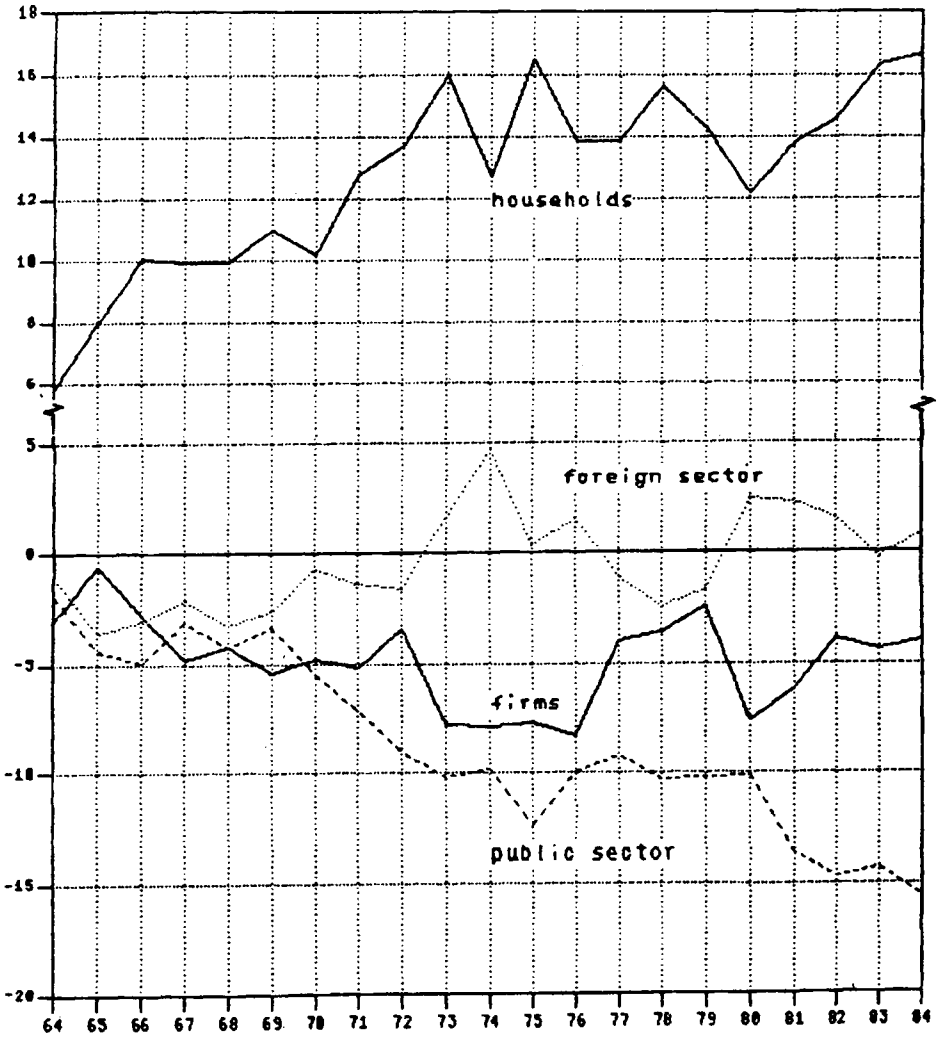


Table 3.1

Monetary and financial markets(1)

ISSUERS / INSTRUMENTS	Central and Local Government	Non-financial firms	Financial Intermediaries: Banks	Financial Intermediaries: SCI	Financial Intermediaries: Others	TOTAL
Short and medium term bills:						
BOT	28.9	-	-	-	-	28.9
	(19.9)					(19.9
Bankers' acceptance	-	0.1	-	-	-	0.1
CDs	-	-	1.4	4.2	-	5.6
				(4.2)		(4.2
Fixed rate bonds	10.6	1.5	-	11.1	-	23.3
	(30.5)	(9.9)		(34.6)		(75.0
Bonds with financial indexation						
CCT	33.0	-	-	-	-	33.0
others	-	2.7	-	4.7	-	7.4
		(0.9)				(0.9)
Bonds with new features:						
drop lock and deep discount bonds	-	-	-	0.1	-	0.1
in ECU	0.7	-	-	..	-	0.7
real indexation	0.2		-		-	0.2
with warrant (2)	-	-	-	0.1	-	0.1
others (3)	-		-	0.2	-	0.2
Unregulated debentures and investment funds	-	-	-	-	0.4	0.4
TOTAL	73.4	4.3	1.4	20.5	0.4	100.0
	(50.3)	(10.9)	-	(38.8)	-	(100.0)

Notes:

(1) - Data refer to percentage shares over total debentures in circulation at the end of 1984; data relative to 1975 are reported in brakets.

(2) - Warrant for the purchase of a fixed rate bond.

(3) - Drop lock, cash-back, mixed fixed and variable coupon, with advanced repayment clause, etc.

Table 3.2

AFTER TAX INTEREST RATES (1)

	1979	1980	1981	1982	1983	1984
Bank deposits						
Current accounts (average)	8.0	9.5	11.1	11.5	10.3	9.5
Current accounts (top rate)	10.5	13.1	15.1	14.6	2.9	12.0
Saving accounts	8.6	10.2	12.1	12.3	11.0	10.1
CD (6 months)	-	-	-	-	-	11.6
Treasury Bills (6 months)	15.7	17.0	21.4	19.11	17.0	14.7
CCT	14.0	17.3	22.3	21.3	18.8	16.0
SCI CDs					14.6	13.0
Long term bonds(2)	14.3	16.3	21.0	19.9	17.3	13.8

(1) End of period values
(2) Yield of bonds issued by SCI

Fig. 3.1

BANKERS' ACCEPTANCES
(billions of lire)

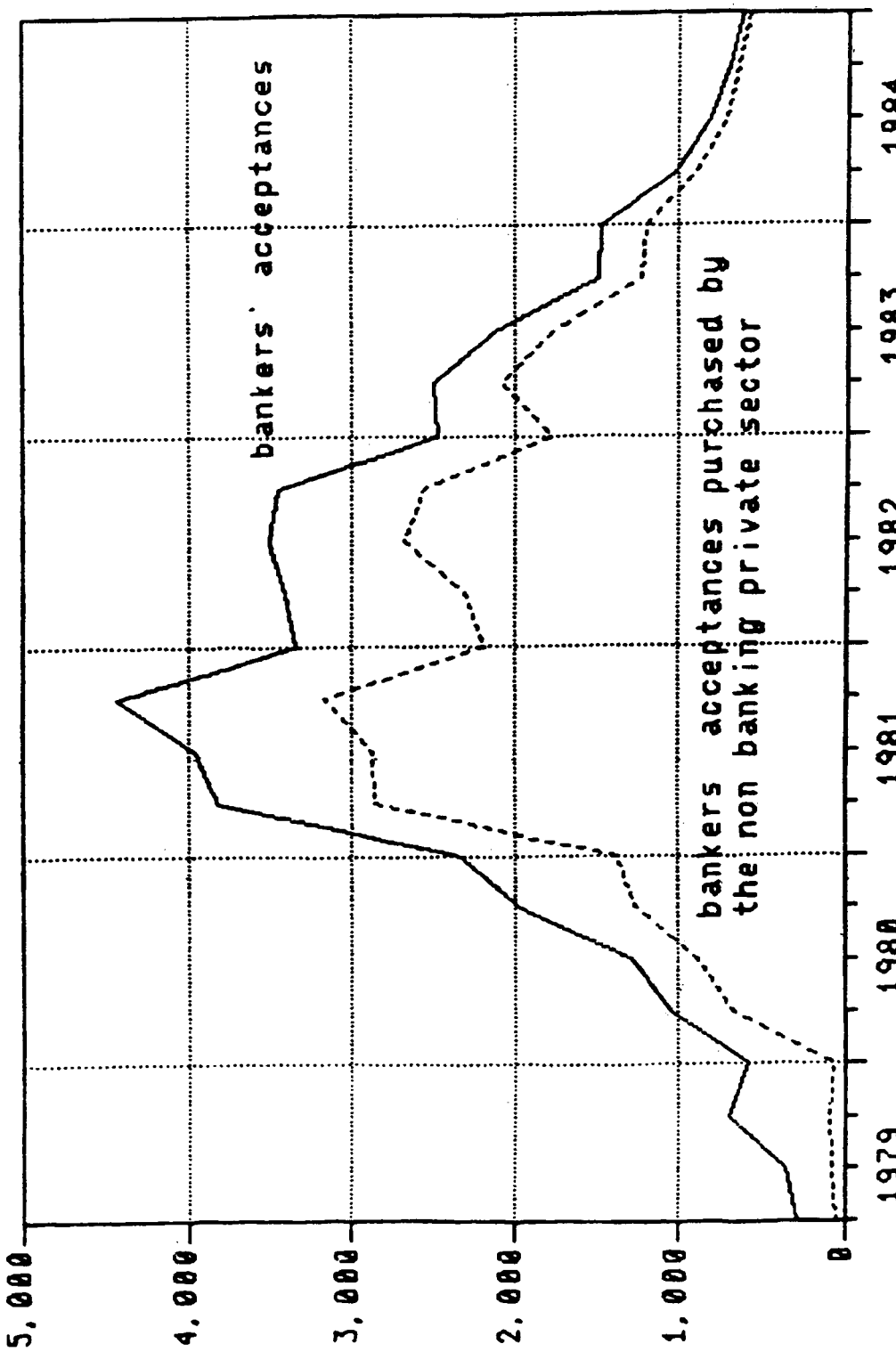


Table 3.3

COMPOSITION OF TOTAL FUNDS RAISED BY THE PRIVATE SECTOR

Year	bank loans in lire	bank loans in foreign currency	Special Credit Institutions loans	private debentures (*)	foreign loans and trade credit	shares	total
1974	51.0	3.0	25.6	2.0	15.4	3.0	100.0
1975	49.4	-2.9	35.5	9.1	4.0	4.9	100.0
1976	47.0	10.8	22.4	5.2	10.6	4.0	100.0
1977	43.3	20.3	26.7	5.1	-1.5	6.1	100.0
1978	46.4	-3.2	30.5	5.1	13.1	8.1	100.0
1979	58.5	5.4	18.0	2.8	12.8	2.5	100.0
1980	41.2	14.6	21.9	4.2	13.6	4.5	100.0
1981	35.8	-3.8	28.9	4.7	29.1	5.3	100.0
1982	40.3	-2.6	35.6	13.3	6.6	6.8	100.0
1983	53.2	8.2	23.3	5.2	3.6	6.5	100.0
1984	47.1	15.0	21.2	2.1	5.1	9.5	100.0
period average	46.7	5.9	26.3	5.4	10.1	5.6	100.0

(*) This item includes bonds, bankers' acceptances and other instruments of credit issued by the private sector

Bank assets
(percentage composition)

Table 3.4

Years	Liquidity	Compulsory Reserves	Bank loans in short t.	Bank loans ire long t.	Bank loans in foreign currency	Bad loans	BOT	CCT	Other bonds	Shares	Interbank Assets	Total
1975	2.5	8.9	37.3	5.7	.6	.8	5.0	1.2	22.8	.8	14.5	100
1976	1.5	10.1	36.8	5.7	1.9	.8	3.9	1.0	22.4	.8	15.1	100
1977	1.6	10.0	30.3	5.5	3.2	1.0	8.4	1.9	22.9	.8	14.5	100
1978	2.1	10.2	27.2	5.6	2.3	1.1	9.1	3.4	22.4	.8	15.7	100
1979	1.3	10.5	27.5	6.2	2.5	1.4	8.2	4.9	21.1	.8	15.6	100
1980	1.3	9.8	25.8	6.7	4.2	1.7	9.7	3.6	19.2	.9	17.1	100
1981	1.3	9.5	26.1	6.6	4.1	1.8	9.6	3.7	17.7	.9	18.7	100
1982	.8	10.0	24.5	6.1	3.6	2.0	11.2	5.6	16.7	1.1	18.3	100
1983	.7	10.2	23.6	5.9	4.1	2.2	9.0	10.2	14.6	1.2	18.3	100
1984	.8	10.5	24.9	6.2	5.1	2.4	7.1	11.2	13.1	1.4	17.2	100

Bank liabilities
(percentage composition)

Years	CDs	Saving deposits	Current accounts	Time deposits	Repos	Interbank liabilities	Net foreign debt	Bank capital	Total
1975	.0	20.8	41.0	17.8	.0	16.5	.7	3.2	100
1976	.0	23.5	39.9	14.6	.0	16.6	2.1	3.3	100
1977	.0	25.9	40.1	12.3	.0	14.9	3.3	3.4	100
1978	.0	26.2	41.9	10.8	.0	15.4	2.4	3.3	100
1979	.0	26.2	43.7	9.9	.0	14.4	2.4	3.5	100
1980	.0	25.1	42.4	8.7	.0	15.8	4.2	3.7	100
1981	.0	25.3	41.0	8.1	.0	17.0	4.1	4.5	100
1982	.0	25.5	40.6	8.0	.9	17.0	3.1	4.8	100
1983	.6	24.6	39.6	7.9	.2	17.3	4.0	5.8	100
1984	1.3	23.4	39.6	8.0	.1	16.3	4.8	6.4	100

Table 3.5

BANK LOANS IN LIRE
(percentage composition)

BANK LOANS	1978	1979	1980	1981	1982	1983	1984
Short term:							
overdrafts	61.0	60.5	60.1	59.3	60.4	60.6	62.8
bill portfolio	12.1	11.1	11.3	10.8	10.2	9.7	8.1
fixed term loans	9.4	9.4	7.4	9.0	9.0	9.4	9.0
other	0.8	0.6	0.9	0.9	0.8	0.7	0.6
Long term:							
mortgage loans	4.6	5.1	5.7	5.9	5.8	6.0	6.2
other	12.1	13.3	14.6	14.1	13.8	13.6	13.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 3.6

SPECIAL CREDIT INSTITUTIONS
(PERCENTAGE COMPOSITION)

	ASSETS					LIABILITIES					
	Cash and demand deposits	LOANS		Securities	Total	C D S	Indexed bonds	Non indexed bonds	Net foreign debt	Capital	Total
		Short term	Long term								
1975	18.2	2.3	79.0	0.5	100.0	9.4	-	75.5	9.6	5.5	100.0
1976	17.7	2.5	79.2	0.6	100.0	8.4	-	75.4	10.5	5.7	100.0
1977	14.3	2.9	82.2	0.6	100.0	9.0	-	76.1	8.9	6.0	100.0
1978	13.3	3.8	82.3	0.6	100.0	10.1	-	76.1	7.3	6.5	100.0
1979	8.4	5.0	85.5	1.1	100.0	9.6	0.5	78.1	4.1	7.7	100.0
1980	8.1	6.3	84.5	1.1	100.0	9.4	2.4	74.8	4.8	8.6	100.0
1981	5.5	8.0	85.2	1.3	100.0	10.3	5.9	68.7	6.0	9.1	100.0
1982	5.3	8.4	84.8	1.5	100.0	15.8	10.2	57.2	8.0	8.8	100.0
1983	4.4	7.9	86.1	1.6	100.0	14.7	15.2	50.0	10.4	9.7	100.0
1984	3.7	9.2	85.4	1.7	100.0	16.1	19.0	42.4	12.0	10.5	100.0

Table 3.7

Outstanding total financial liabilities of the private sector
(percentage composition)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Bank loans (1)										
in lire (1)	52.5	53.3	50.9	52.1	53.9	51.7	48.6	46.8	48.7	48.8
in foreign currency	0.9	2.7	5.0	3.8	4.2	6.8	6.1	5.6	6.2	7.6
Bankers' acceptances	/	/	/	/	0.4	1.2	1.4	0.9	0.5	0.2
SCI loans (2)										
Short term	1.2	1.2	1.3	1.7	2.0	2.3	2.7	2.9	2.8	3.3
long term	31.8	30.6	29.4	28.6	26.0	24.1	23.8	24.2	22.1	21.0
Factoring (3)	/	0.4	0.8	0.9	1.0	0.9	1.0	1.1	1.1	1.4
Leasing (3)	/	/	0.1	0.1	0.2	0.2	0.3	0.6	0.7	0.9
Indexed bonds	1.0	1.5	2.2	2.7	2.6	2.3	2.3	3.5	3.5	3.7
Other bonds	8.4	7.5	6.1	5.4	4.6	3.7	3.1	2.7	2.5	1.9
Foreign liabilities	4.2	2.8	4.2	4.7	5.1	6.8	10.7	11.7	11.9	11.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(1) Including bad loans and excluding loans to leasing and factoring firms; the data are corrected for an estimate of the effect of the make up procedures used by the banks during the periods when the ceiling on bank loans was binding.

(2) Excluding loans to leasing and factoring firms.

(3) The data on loans through leasing and factoring have been estimated, the figures for leasing refer to the outstanding value of leasing contracts not of the repaired installments.

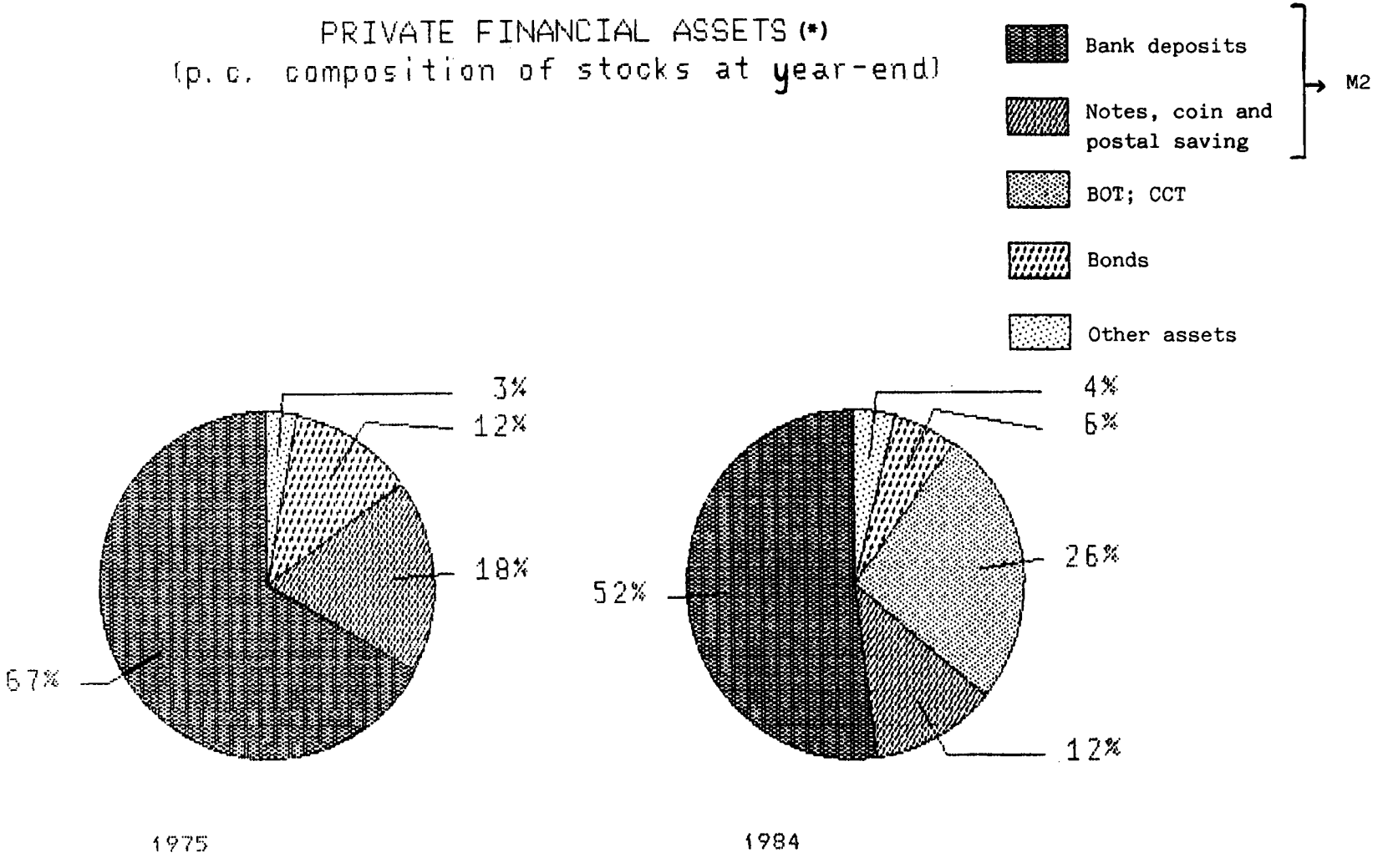
Table 3.8

Outstanding total financial assets of the private sector
(percentage compositon)

Financial assets	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Notes and coins	8.7	8.2	7.7	7.3	6.8	6.8	6.7	6.2	5.8	5.3
Bank deposits	66.5	67.7	69.0	67.5	66.1	64.6	61.0	60.1	55.8	51.6
Bank CDs	-	-	-	-	-	-	-	-	0.5	1.0
Postal savings	9.4	9.3	9.3	9.4	9.9	9.1	8.2	7.5	7.0	6.6
BOT	0.1	1.5	3.0	3.9	5.8	9.3	13.5	13.5	13.7	14.3
Bankers' acceptances	-	-	-	-	-	0.3	0.4	0.3	0.2	0.1
SCI CDs	2.6	2.2	1.9	2.0	1.7	1.6	1.7	2.7	2.5	2.6
CCT	-	-	0.6	1.5	2.2	2.3	2.7	4.2	8.3	11.5
Other bonds	12.3	10.4	8.1	8.0	6.8	5.3	5.2	4.9	5.6	6.0
Titoli atipici and investment funds	-	-	-	-	0.1	0.1	0.2	0.2	0.2	0.4
Foreign assets	0.4	0.7	0.4	0.4	0.6	0.6	0.4	0.4	0.4	0.6
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Figure 3.2

PRIVATE FINANCIAL ASSETS (*)
(p.c. composition of stocks at year-end)



(*) Excluding shares.

Table 4.1

Determinants of financial innovation in Italy: 1975 - 1984

	(A) EXOGENEOUS CAUSES									(B) SECTOR					
TYPE	1	2	3	4	5	6 a	6 b	6 c	P	F	B	SCI	NI	
BOTs	x	x	x					x	x					
CCTs in lire	x	x	x					x	x					
other financially indexed bonds	x	x								x		x		
CCTs in ECU	x	x	x						x					
bonds with real indexation	x		x						x			x		
other bonds (C)	x	x										x		
bank CDs								x			x			
SCI CDs	x	x					x					x		
bankers' acceptances						x		x		x				
unregulated debentures	x					x							x	
investment funds														
saving shares								x		x				
repos	x	x						x			x			
syndicated loans					x						x			
long term SCI indexed loans	x	x										x		
leasing					x	x							x	
factoring					x	x							x	
convertible bonds	x							x		x				
short term SCI loans	x						x					x		
ATM				x				x			x			
home banking				x							x			

Notes:

(A) - Column headings: 1- Inflation, 2- Volatility of interest rates, 3- Increasing borrowing requirement; 4- Technology, 5- Internationalisation, 6- Policy action: a) more binding regulation b) lifting of regulation, c) incentives.

(B) - Sector that issued the new instrument: P :public sector including public agencies, F: firms, B: banking system, SCI: Special Credit Institutions, NI: new intermediaries

(C) - This item includes zero coupon bonds, bonds with warrant, drop lock bonds or other bonds offering innovative conditions in interest payment or in principal reimbursement.

Table 5.1

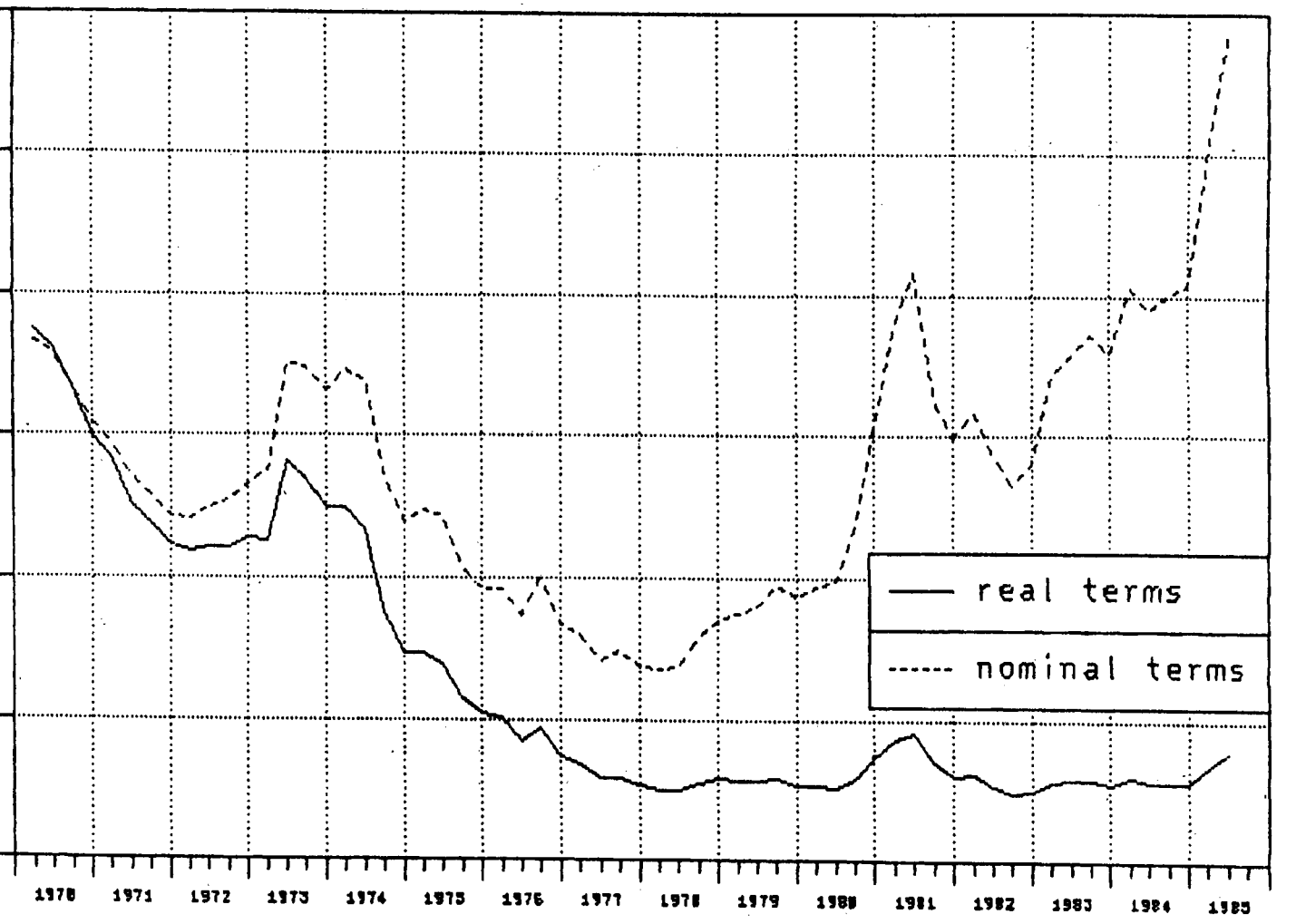
PROFIT AND LOSS ACCOUNTS OF THE BANKS: FORMATION OF PROFIT (1) *

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	As a percentage of total resources (2)										
Net interest income	**3.29**	**3.70**	**3.42**	**3.21**	**2.92**	**2.75**	**3.45**	**3.54**	**3.30**	**3.37**	**3.36**
Non-interest income	0.56	0.77	0.89	0.94	0.98	0.95	1.00	1.23	1.27	1.19	1.28
of which: securities transactions	*0.05*	*0.27*	*0.25*	*0.34*	*0.46*	*0.45*	*0.44*	*0.56*	*0.66*	*0.55*	*0.66*
Gross income	**3.85**	**4.47**	**4.31**	**4.15**	**3.90**	**3.70**	**4.45**	**4.77**	**4.57**	**4.56**	**4.64**
Operating expenses	2.69	2.98	3.04	2.91	2.78	2.72	3.01	2.95	2.97	3.15	3.15
of which: staff costs	*0.22*	*2.38*	*2.42*	*2.21*	*2.08*	*1.99*	*2.20*	*2.14*	*2.06*	*2.31*	*2.27*
Net income	**1.16**	**1.49**	**1.27**	**1.24**	**1.12**	**0.98**	**1.44**	**1.82**	**1.60**	**1.41**	**1.49**
Provisions (net)	0.84	1.10	0.95	0.87	0.76	0.69	0.99	1.30	0.99	0.72	0.71
of which: for loan losses	*0.26*	*0.38*	*0.29*	*0.37*	*0.37*	*0.33*	*0.44*	*0.44*	*0.46*	*0.42*	*0.39*
Extraordinary income and withdrawals from loan loss funds	**−0.06**	**−0.02**	**0.01**	**0.01**	**—**	**0.04**	**0.01**	**0.03**	**0.08**	**0.03**	**0.02**
Profit before tax	**0.26**	**0.37**	**0.33**	**0.38**	**0.36**	**0.33**	**0.46**	**0.55**	**0.69**	**0.72**	**0.80**
Tax	0.13	0.24	0.18	0.21	0.18	0.14	0.24	0.27	0.40	0.43	0.44
Net profit	**0.13**	**0.13**	**0.15**	**.17**	**0.18**	**0.19**	**0.22**	**0.28**	**0.29**	**0.29**	**0.36**
	Other data										
Number of employees	203,505	216,346	227,338	239,901	249,999	261,505	274,889	287,420	293,002	299,282	302,755
Total resources per employee *(billions of lire)*	589	639	745	868	1,002	1,177	1,355	1,536	1,755	2,001	2,216
Cost per employee *(millions of lire)*	13.1	15.2	18.0	19.2	20.8	23.4	29.9	32.8	36.1	46.2	50.2
	Percentage rates of increase										
Cost per employee	8.4	16.0	11.8	6.7	8.3	12.5	27.8	9.7	13.2	28.0	8.7
Total resources per employee:											
in nominal terms	....	8.5	16.6	16.5	15.4	17.5	15.1	13.4	14.3	14.0	10.7
at constant prices (3)	....	−7.4	0.1	1.4	2.7	1.5	−5.0	−4.5	−1.8	−1.0	0.1

(1) Excluding central credit institutions and, except for the item "Number of employees", credit institutions which at the dates in question submitted profit and loss returns at times other than the end of the year. The figures for net interest income and non-interest income, in particular income on securities transactions, are not comparable to those for previous years. They differ from the data published earlier in the definitions of some items. — (2) Net of costs and operating and extraordinary losses. — (3) Deflated using the cost-of-living index.

* This table is reproduced from BANCA D'ITALIA, Abridged report on 1984.

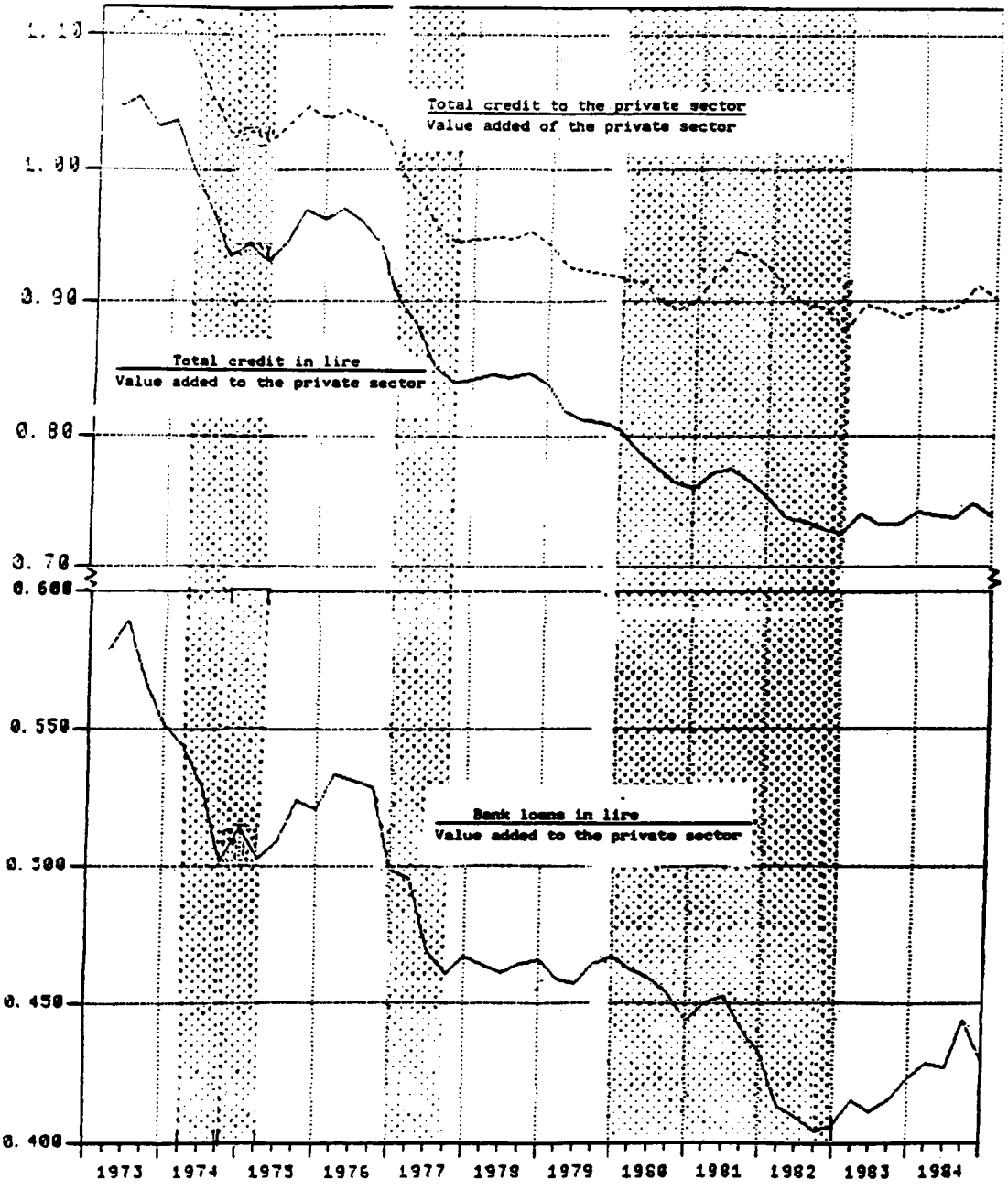
STOCK MARKET INDEX (1) Fig. 5.1



(1) The index in real terms is obtained by deflating the nominal term index with the GNP deflator (1970=100)

Table 5.2

TOTAL CREDIT AND OUTPUT (1)*



(1) The credit aggregates are defined as:

a) bank loans in lire, including bankers' acceptances held by the banking sector and bad loans, corrected for an estimate of the effect of the make up procedures used by the banks during the periods when the ceiling was binding.

b) total credit in lire, including a), SCI loans, bonds, bankers' acceptances and other private instruments of credit.

c) total credit to the private sector, including b), bank loans in foreign currency, external trade credit and foreign loans.

* This figure is reproduced from Cottarelli, Galli, Marullo and Pittaluga (1985). Shaded areas mark the periods in which credit ceilings are believed to have been binding.

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Contents

Index of tables and figures

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