



The Swedish Financial Market



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ISSN: 1104-7348

PRODUCTION: WEST STUDIOS AB

AND SVERIGES RIKSBANK

PRINTED BY ELANDERS GOTAB 1999



Introduction

The Riksbank publishes an annual review of the Swedish financial market, with a view to providing a simple account of the market's structure and the way in which it functions.

The review describes substantial changes that have taken place in the past year. A more comprehensive statistical background is available in the Riksbank's Statistical Yearbook and monthly Financial Market Statistics.

The presentation is based on the Riksbank's financial market statistics, which are compiled for the principal purpose of monitoring the effects of monetary policy on the financial market and the stability of the financial system.

The presentation is based mainly on statistics produced at the Riksbank. Where other sources have been used, this is acknowledged in references.



The financial market


The financial market refers here to the entire financial system, including financial markets, instruments and institutions. The primary functions of the financial system are to redistribute savings, manage risks, and provide effective payment facilities. The financial system includes securities markets and intermediaries, e.g. banks, that bring together savers and those who need to borrow for consumption or investment.

A deregulated market

The financial market evolves in response to general economic developments, fiscal and monetary policy and changes in regulations.

Prior to 1985, the financial market was strictly regulated. Regulatory measures were employed as instruments of monetary policy; examples include credit restrictions in the form of interest rate controls and credit ceilings, statutory investment ratios and minimum liquidity ratios. Today the instrument used in managing monetary policy is the Riksbank's repo rate¹, while the principal purpose of the regulatory system is to promote stability and efficiency in the financial system.

The financial system is characterised today by efficient monetary and bond markets, with a large array of financial instruments (derivatives) that can be used to cover financial risks. The largest borrowers on the money and bond markets are the central government and the housing institutions. However, a highly characteristic feature of the Swedish financial market is the mediation of the general public's savings. The non-bank public in Sweden, i.e. in the first instance enterprises and households, participates in the monetary and bond markets to only a limited extent as lenders and to a negligible extent as borrowers. The credit requirements of these borrowers are met



mainly by financial institutions such as banks, housing intermediaries and finance companies. This reflects the fact that the information costs involved in lending to households and to small and medium-sized companies are generally far too high to be managed on the bond market. Indirectly, enterprises and households are major sources of credit via their savings in banks, investment funds and insurance institutions.

1 The rate parties borrowing from the Riksbank pay on weekly liquidity transactions.



The role of the Riksbank


Sveriges Riksbank, as central bank, is responsible for monetary policy. The Riksbank also has the tasks of promoting a secure and efficient system of payments and overseeing the stability of the financial system. In this latter task it is responsible for the system as a whole, while individual financial institutions are supervised by the Financial Supervisory Authority.

The goal of the Riksbank's operations is to keep the value of money stable. This objective is laid down by the new law that came into effect on 1 January 1999. The purpose of this new law, which was passed by the Riksdag in November 1998, is to strengthen the Riksbank's position.

Since the beginning of 1993, the explicit goal of the Riksbank's monetary policy has been to limit inflation, as measured by the consumer price index (CPI), to an annual rate of 2 per cent, with a tolerance interval of ± 1 percentage point. The executive board of the Riksbank, which as from the beginning of 1999 consists of six full-time members, in accordance with the new law, has decided that this monetary policy target is to continue in effect as formulated.

For some time prior to 19 November 1992, the Riksbank pursued the intermediate goal of a fixed rate of exchange between the krona and the theoretical ecu, the ultimate objective being price stability. At this time, the Riksbank's monetary policy focused on defending the fixed exchange rate by buying and selling kronor on the currency market. Adjustments to the marginal rate of interest at the time aimed to influence currency flows so as to keep the exchange rate within a given interval around a benchmark.

After the transition to a flexible exchange rate which the governing council of the Riksbank decided on, no new intermediate goal has been formulated. Instead, the



Riksbank uses several different indicators to assess the inflationary pressure in the economy. These indicators include the utilization of industrial capacity, unemployment and wage trends. Examples of financial indicators include growth in the money supply and lending by credit institutions. The indicators have no set ranking with respect to one another for assessing inflationary pressures.

In accordance with the new law that came into force on 1 January 1999, the government determines the exchange rate system and the Riksbank decides how it is to be implemented.

Management of monetary policy

The feasibility of influencing inflation in the economy by means of monetary policy rests on the ability of the central bank to control the shortest market interest rates. The foundation of the system of monetary policy control consists of the interest terms for the banking sector's overnight liquidity balance (surplus or deficit) with the Riksbank, together with the interest terms and amount of liquidity that the Riksbank offers the market, primarily via the weekly repo transactions. While the Riksbank's rates of interest on loans and deposits² set the limits for the shortest market interest rates, the terms of interest for and volume of repo transactions determine the level of the overnight rates within this corridor. The Riksbank uses the weekly repos to signal where it intends the overnight rate to be in the coming week.

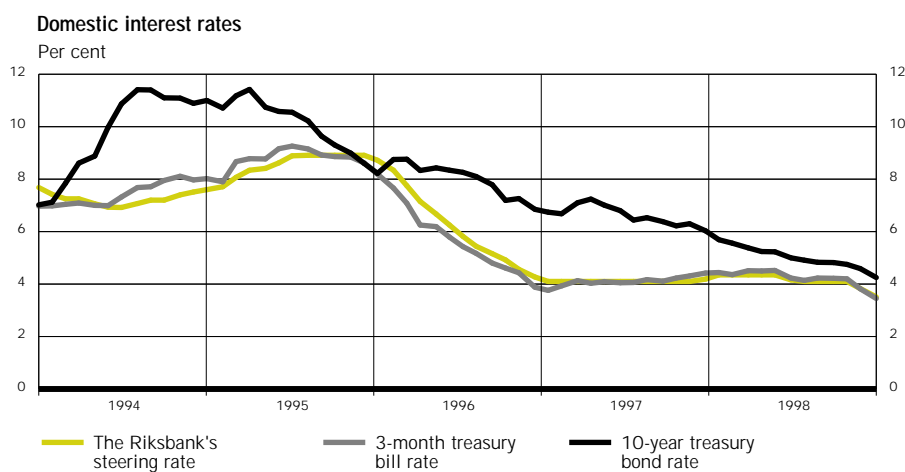
By determining the interest rates for the shortest transactions, the Riksbank also influences the market rates for longer term loans. In that loans and deposits in the overnight market are always an alternative to longer term transactions, expectations of the future level of short-term interest rates will influence longer rates of interest.

² The current rates of interest on loans and deposits specify the rates available to other parties (banks) for deposits in or loans from the Riksbank.

The securities market

The securities market is an umbrella term covering the various markets in which interest-bearing securities and equity are traded. Interest-bearing securities are traded both on the money market at short interest rates and on the bond market at long rates. In addition to these markets, derivative instruments are also traded.

The short-term interest rates reflect the direction of economic monetary policy and at the same time indicate the market's monetary policy expectations in the immediate future. The long-term rates provide an indication of the expected rate of inflation in the future and reflect long-term confidence in economic policy.



The money market

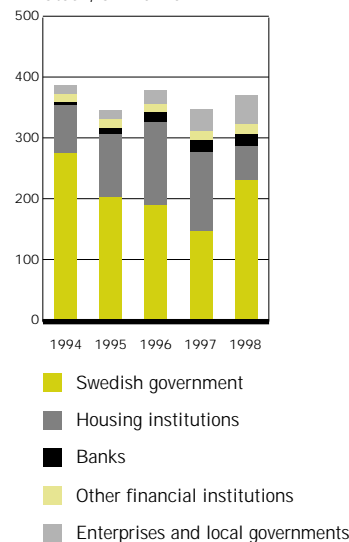
Short-term interest rates normally refer to interest rates on loans to be repaid within one year. The money market is therefore defined as comprising trade in securities with a maturity of up to one year.

The largest borrowers on the money market are the central government and the financial sector, while the non-financial sector makes very little use of the money market as a source of finance. The dominant instrument in this market is treasury bills, issued by the National Debt Office.

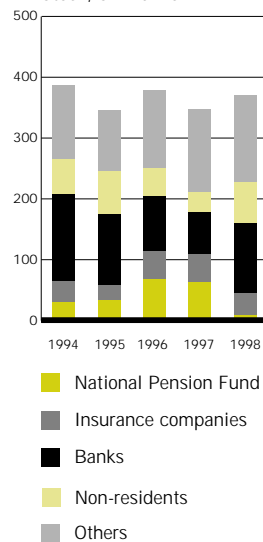
One reason why the National Debt Office borrows on the money market by issuing treasury bills is to make it possible for the Office to manage fluctuations in government borrowing requirements. Where housing institutions are concerned, the main purpose of short-term borrowing is to bring the interest rate terms on which they borrow into line with the terms on which they lend to their customers, so as to avoid or minimise interest rate risks. In periods when their customers opt for new or renewed loans at variable or short-term rates, housing institutions increase their short-term borrowing on the money market.

The largest investors in the money market are non-financial companies and banks. Foreign investors are also active on the money market and their holdings of money market instruments, particularly treasury bills, rose very sharply in 1998.

Money market issuers
Stock, SEK billion



Money market investors
Stock, SEK billion

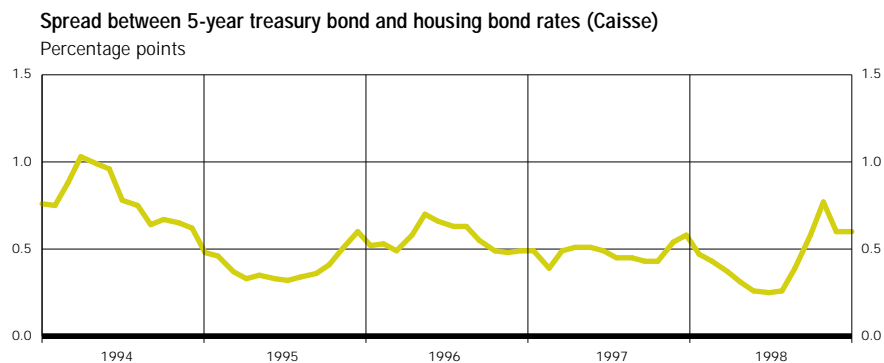


The bond market

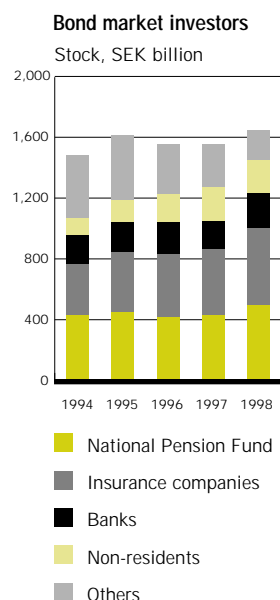
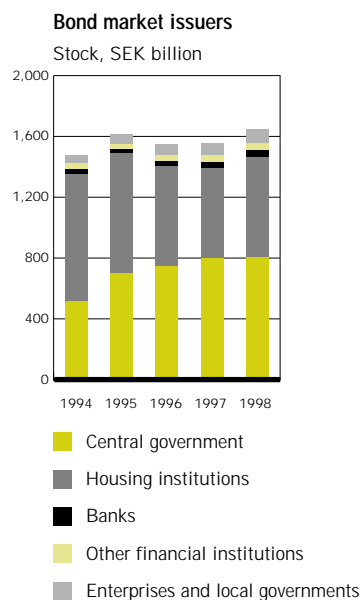
The securities issued and traded on the bond market have maturities of at least one year. By far the largest borrowers here are the central government and housing intermediaries. Borrowing by other groups is low. Only a minor share of corporate borrowing, for example, is undertaken in this market.

Government borrowing in the bond market, via the National Debt Office, is undertaken to finance current budget deficits and other unfinanced expenditures approved by the Riksdag.

Housing institutions use their bond market borrowing to finance loans to the non-financial sector, which in turn uses these loans chiefly to finance real estate.



The treasury bond rate is sometimes called the risk-free rate. The difference between the interest rates for treasury and housing bonds reflects not only the higher credit risk involved in housing bonds but also the lower liquidity they often have. The large differential at the beginning of the 1990s was due mainly to the major credit losses suffered by housing credit institutions during the so-called financial crisis, which weakened the financial position of these institutions and thus led to investors requiring higher returns. From 1994 onwards, the differential has gradually decreased; in 1996 and 1997 it fluctuated around 0.5 per cent. While it continued down during the first half of 1998, reaching a lowest rate of 0.26 per cent, the differential then began to rise again in August and was between 0.6 and 0.8 per cent for the rest of the year. The anxiety on the international markets that began as early as 1997 in Asia, grew when the Russian government suspended payments on Russian government



debt and increased still further after the problems in an American hedge fund, led investors to require a higher risk premium. Partly as a result of shrinking volumes, the liquidity of housing bonds has also continued to be considerably poorer; this has taken on increased significance for the gap in interest rates between housing and treasury bonds in recent years.

Active trading in the bond market is undertaken mainly in treasury paper and a number of standardised (benchmark) loans issued by housing credit institutions. Private bonds are issued by banks and housing intermediaries and are aimed primarily at private individuals and other small investors. Private bonds are traded on the Stockholm Exchange, as a rule with the issuer acting as market maker by offering two-way prices. Instruments that are administered by the issuer and are not registered at the Securities Register Centre (e.g. Caisse bonds and National Debt Office savings accounts) are generally also regarded as private bonds.

The major bond market investors are the institutions that manage the greater part of the economy's savings, i.e. the National Pension Fund, insurance companies and banks. In recent years, foreign investors have steadily increased their Swedish bond holdings and now own about 14 per cent of the total stock.

Bank holdings of SEK securities

SEK billion	Change in 1998	Stock, end 1998
Treasury bills	57	75
Certificates issued by:		
Housing institutions	-13	25
Banks	-1	4
Other financial institutions	1	4
Enterprises, local govts., others	1	8
Treasury bonds	17	68
Bonds issued by:		
Housing institutions	25	136
Banks	3	8
Other financial institutions	-2	3
Enterprises, local govts., others	3	15
Total	91	346

INCREASED MARKET BORROWING

Compared with the bond market, the money market is small. The growth it recorded in 1998 was due primarily to the fact that the National Debt Office provided treasury bills in exchange for bond loans with short residual maturities, in order to enhance the functioning of the market. Bond loans with short residual maturity are not traded as much in the market as other loans, which means that liquidity deteriorates. While the stock of treasury bills rose by more than SEK 80 billion in the course of the year, the stock of housing certificates fell by over SEK 70 billion. Housing intermediaries opted to arrange more of their financing in the bond market and by borrowing in foreign markets.

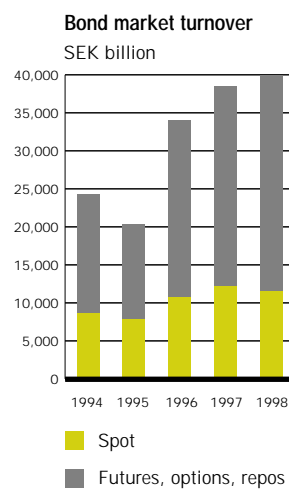
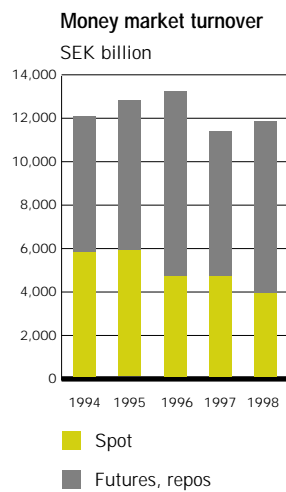
In the bond market, it was mainly housing institutions that increased their borrowing in 1998. The stock of treasury bonds rose only marginally. In total, the market grew by SEK 92 billion.

Money and bond market issuers

SEK billion	1996	1997	1998
Money market			
Central government	189	147	231
Housing institutions	137	129	55
Banks	15	20	20
Other financial institutions	14	15	16
Enterprises and local govts.	23	36	48
Total	378	347	370
Bond market			
Central government	746	802	808
Housing institutions	660	588	657
Banks	28	40	46
Other financial institutions	46	46	40
Enterprises and local govts.	72	76	93
Total	1,552	1,552	1,644



The 1998 turnover of the Riksbank's primary dealers (banks and securities companies appointed as counterparties for the Riksbank's market operations) totalled SEK 52,000 billion, up just over 4 per cent from 1997. The increase in turnover is attributable almost exclusively to trading in treasury bonds. Borrowing by the National Debt Office has been concentrated to a small number of issues that are sufficiently large to attract investors who manage their portfolios actively; this leads among other things to increased trading.



STRUCTURAL CHANGES IN THE MONEY AND BOND MARKETS

In 1998, various changes were implemented in trading in Swedish treasury paper. A new agreement with National Debt Office traders came into effect, and for the first time, a foreign bank was included among these traders. The new agreement emphasises the role of traders as intermediaries for treasury paper, and certain requirements have been dropped with respect to pricing on the spot market.

In September 1998, OM Stockholmsbörsen launched two treasury bond futures contracts (one with two-year and one with ten-year bonds as underlying instruments) for trading on the exchange. The purpose was to offer the market instruments with high liquidity. 1998 turnover averaged approximately 6,800 contracts per day, which is equivalent to a value of SEK 6.8 billion per day. One of the consequences of trade



in interest-bearing futures has been a sharp drop in the spread between bid and asked prices in the market.


In order to promote further development of the Swedish bond market and to harmonise it with the international (especially European) market, as well as to broaden the market for treasury bonds, at the beginning of the year the National Debt Office introduced an eleven-year treasury bond denominated in euros. In close conjunction with the euro issue, an SEK bond loan was issued with identical terms. The parallel issues facilitate comparisons between SEK interest rates and interest rates in the rest of Europe and are expected to strengthen the position of the Swedish state among international investors.

GREATER SCOPE IN THE MARKET FOR BORROWERS OTHER THAN THE STATE

The improvement in government finances and the reduced offer of treasury bonds ought to provide more scope in the market for other issuers, not least enterprises. Hitherto, Swedish companies have found it cheaper to borrow abroad. The stock market has functioned adequately as a source of venture capital and bank loans have been used to meet liquidity requirements. Increased interest on the part of investors is now expected in alternatives to treasury paper, and at the same time the interest rate situation in the Swedish market has become more and more advantageous to borrowers. However, even though the banks have taken a number of measures to enable them to participate in developing the market for bonds issued by companies, the supply has not yet increased to any notable extent.

DERIVATES OF INTEREST-BEARING SECURITIES

Trade in derivatives (forwards and options), which enable investors to adjust the level of risk in different investments, accounts for a large part of market turnover. OM Stockholmsbörsen AB, which is an entity formed by the merger of OM Stockholm AB and Stockholms Fondbörs AB, now organises trade in both shares and derivatives. In the derivatives market, OM Stockholmsbörsen is an authorised exchange and clearing organisation for trade in Sweden in both interest- and equity-related derivatives. The instruments underlying short interest-related derivatives that are traded on the exchange are six-month treasury bills and three-month inter-bank deposits, while those underlying long interest-related products are treasury and housing bonds. Contracts are written as a rule in units of SEK 1 million. In addition



to the standardised instruments there are interest-related OTC derivatives. These are generally designed by banks and securities companies to meet the requirements of the customer and are not traded in organised markets. They are not normally cleared for settlement either, as is done by OM.

Another category of derivatives is swaps, which are normally used to manage risk exposure when borrowed funds are converted from one currency into another (exchange rate swap) or from one interest rate to another (interest rate swap). Swaps also feature in active debt management to modify a debt portfolio's cash flows. Swaps are arranged and mediated internationally by large banks, but also occur in the domestic market. Since their introduction in the early 1980s, swap arrangements have become increasingly sophisticated and trading is now very widespread.


Securitisation

In simple terms, securitisation is a technique in which bonds or other securities are used in order to raise loans against financial assets. As originally used, this concept means that a company, e.g. a credit institution, finances its loans by issuing bonds or other securities, but the term also has a secondary meaning. It is used to refer to a form of financing in which certain assets are separated off from a company's other assets and sold to a specially created legal entity, a special company. This special company finances its acquisition of these assets by issuing bonds or other securities. The special company's sole purpose, otherwise, is to own debts and to channel the flows of payments generated by the debts to the investors in the securities the company has issued. Investors in such securities thus finance a specific part of the general operations of the company selling its assets, which in this connection is termed the originator.

The assets that can be used for securitisation often consist of stocks of loans, e.g. real estate loans, but they can also be made up of other receivables such as credit card debts, leasing contract debts, car purchase loans, future rent and other commercial debts. The process of securitisation is associated with extensive costs, which means that each securitisation transaction has to involve a substantial sum.


ADVANTAGES OF SECURITISATION

There are several reasons why companies, credit institutions or other enterprises may find securitisation an interesting option.

- 
- By means of the special company, the company (originator) can arrange financing in a market that it is not normally able to borrow on. The special company has a very limited and specialised function, and the assets that it acquires often represent low-risk debts. The special company is therefore able to obtain a quite different evaluation of its credit quality than the originator, and can thus achieve very low financing costs in markets to which only borrowers with very good creditworthiness have access.
 - The originator has the option of liquidating certain undesirable loan stocks or debts. Admittedly the borrowing costs involved are very high, but this is outweighed by the fact, for example, that the originator's credit portfolio acquires a different, better composition.
 - The originator may wish to borrow money anonymously. There is no obvious need for the identity of the originator to be known when the special company borrows funds.
 - In all types of companies, securitisation can be used in order to adjust the balance sheet and reduce the amount of stockholders' equity needed. The most obvious saving for credit institutions is that they can improve their capital adequacy ratio. For a bank, for example, the capital adequacy ratio means that it must possess capital (consisting among other things of stockholders' equity) equivalent to a certain share of the bank's assets. The risk involved in the asset is decisive for the degree of capital ratio required. Securitisation reduces the need for stockholders' equity. Sales reduce assets, this improves the position in terms of capital cover and the capital thus freed up can be used in some other way. Debts can be paid off and the debt-equity ratio improved. Alternatively, the leeway created by the sale can be used for making new loans or for other operations. In contrast to the situation in other types of sales of assets, the originator can handle contacts with its customers or borrowers, on behalf of the special company. It is common, for example, for a housing credit institution to continue to receive amortisation and interest payments from its borrowers in just the same fashion as previously, and to then forward them to the special company.

GROWING MARKET FOR SECURITISATION

Securitisation has been used for nearly thirty years in the USA and is a well-established form of financing there. In Europe securitisation was introduced in about the middle of the 1980s, beginning in the UK. The British market is the largest outside



the USA but involves considerably smaller volumes. In other European countries, as in Asia and South America, securitisation is a relatively unusual but growing phenomenon.

PROPOSED LEGISLATIVE CHANGE IN SWEDEN

A number of securitisations, principally of housing credit institutions' loan stocks, have been carried out in Sweden, but with the special company located abroad. The reason for this is that the acquisition of debts by a special company is regarded as a financial operation subject to the law on financial operations. That means that a company of this kind is subject to capital adequacy ratio for the debts that it acquires. The present Swedish legislation does not present any real obstacle to securitisation, but this capital adequacy ratio entails a capital cost that makes securitisation using a special company registered in Sweden an unprofitable undertaking. In the autumn, the Ministry of Finance will present a proposal for a change in the law to the effect that a business that acquires debts on some isolated occasion will be exempted from the law on financial operations. After a change in the law along the lines of this proposal, special companies in cases of securitisation would not be subject to capital adequacy ratio that would add to their costs. If the conditions for securitisation in Sweden are improved, their use is expected to increase sharply and to spread to types of companies other than credit institutions.



The stock market

In recent years the stock market has been of growing importance as a source of risk capital for both the financial and the non-financial sector. After several years in the 1990s in which new issues and introductions on the Stockholm Stock Exchange rose in number and value, the trend turned downwards in 1997 and 1998. While the exchange accounted for SEK 42 billion in new risk capital in 1994, its contribution to new capital dropped to SEK 7 billion in 1998.

INTEGRATION OF STOCK MARKET AND DERIVATIVES MARKET

At the beginning of 1998, Stockholms Fondbörs AB, which had been the centre for spot trading in shares in Sweden, merged with the derivatives exchange OM Stockholm AB. OM Stockholm AB is also an authorised clearing organisation for trade in Sweden in both equity- and interest-related derivatives. The two companies have recently completed a legal merger to become OM Stockholmsbörsen AB, which means that the stock market has been integrated with the derivatives market.

In addition to the Stockholm Stock Exchange (now OM Stockholmsbörsen), a number of unofficial lists have been introduced in recent years for shares that are traded locally through brokers or smaller market places. The earlier exchange monopoly was abolished in 1993 in connection with the conversion of Stockholm Stock Exchange into a limited company. This meant that in addition to the competition from foreign exchanges where shares in large Swedish companies are traded, competition from other Swedish market places also became possible. This new arrangement has been used in recent years by IM InnovationsMarknaden and Stockholm Börsinformation (SBI) for channelling risk capital to relatively small companies. In December 1998, these two companies merged to become the parent company SBI Holding AB and the wholly owned subsidiary SBI Marknadsplats AB, which became an authorised market place towards the end of 1998. Trading in unlisted shares has also been promoted by the Stockholm Stock Exchange, which has provided access to its SAX system for the new market places Aktietorget ('the Share Market') and Nya Marknaden ('the New Market').

Share trading via the Internet, mainly for private individuals, has expanded rapidly in the past couple of years. Services for entering orders via the Internet are now provided by more than ten members of the Stockholm Exchange. The trans-

action costs for customers are considerably lower than for those trading through securities companies and banks.

Automatic ordering facilities have been available on the Stockholm Exchange for a few years now; briefly, they allow customers to place orders via their own computer systems that are then immediately forwarded by members of the Exchange to the Exchange's trading system. Eighteen members of the Exchange were providing such facilities at the end of 1998.

Membership of the Exchange has been increasing steadily in the past six years. Five new members joined in 1998, all of them remote members, trading directly in the Exchange's system from abroad. In all, the Exchange had 53 members at the end of 1998, including 20 remote members.

TRADING IN SHARES ON THE STOCKHOLM EXCHANGE

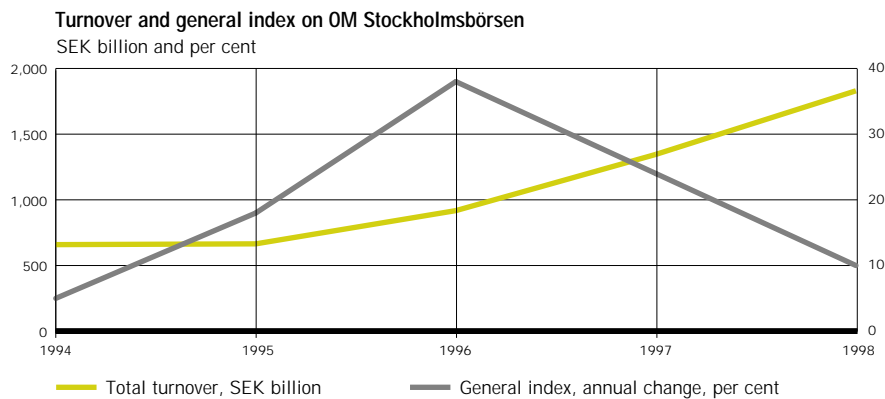
Trading in shares on the Stockholm Exchange has been high in recent years. During 1998, aggregate turnover on all the Exchange's lists rose by 36 per cent to SEK 1,830 billion. The rise in share prices by an average of 10 per cent accounted for part of this increase in turnover. The velocity of turnover (annual turnover in relation to the total value of all listed shares) was very high at 76 per cent. The total market value of all listed shares at the end of 1998 was SEK 2,413 billion. The number of listed companies at the year end was 276, a net increase of 15.

Following a sharp rise in share prices lasting until the summer of 1998 and peaking in July (up 32 per cent from the beginning of the year), prices turned downwards. The fall in prices in the following months resulted in negative growth overall from the turn of the year, though there was some recovery towards the end of the year. The general index rose by 10 per cent over the year as a whole.

Trading in shares on OM Stockholmsbörsen

	1994	1995	1996	1997	1998
Listed shares					
Total turnover, SEK billion	659	665	918	1,346	1,830
Year-end market value, SEK billion	977	1,180	1,688	2,164	2,413
Annual change in General Index, per cent	5	18	38	24	10
Number of listed companies at year end	228	223	229	261	276
Risk capital supply, SEK billion	42	26	24	17	7

Source: OM Stockholmsbörsen



TRADING ON THE STOCKHOLM EXCHANGE BY NON-RESIDENTS

During 1998, foreign investors accounted for around 25 per cent of trading in shares on the Stockholm Exchange, continuing their gradual decline from a share of about 30 per cent in the mid-1990s. During the latter part of 1998, relatively extensive quantities of Swedish shares were sold back by non-residents. However, foreign investors' holdings of Swedish portfolio shares fell by a total of just SEK 2.8 billion on the year, on account of large net purchases in the early part of the year. At the end of 1998, non-resident investors were calculated to own approximately 32 per cent of the total market value of listed shares.

SAX AND SOX

The automated SAX system (Stockholm Automated eXchange) is used for trading on the Exchange not only in shares but also in convertible loans, premium bonds and interest-bearing bonds. The Stockholm Bond Exchange (SOX), which is affiliated with the Stockholm Stock Exchange, is used for bond trading primarily by small companies and private individuals. In 1997 and 1998, turnover in the SOX market remained at the relatively low level established in 1996, approximately SEK 12 billion. At the end of 1998 the SOX list comprised 292 loans from 21 issuers, with a total market value of SEK 70 billion. The reason why turnover was virtually unchanged in spite of the sharp increase in the number of loans is that indexed loans, i.e. bond



loans with a yield tied to one or more share indices, have become increasingly common. Trade in these loans is limited; the buyer often retains holdings until they mature.

EQUITY-RELATED DERIVATIVES

Trading in Sweden in options and futures as equity derivatives is also arranged predominantly by OM Stockholmsbörsen AB. The equity-related products offered by this exchange relate almost exclusively to Swedish equities and to the exchange's own share index. Contracts here are written in units of 100 shares.

Overnight and repo markets

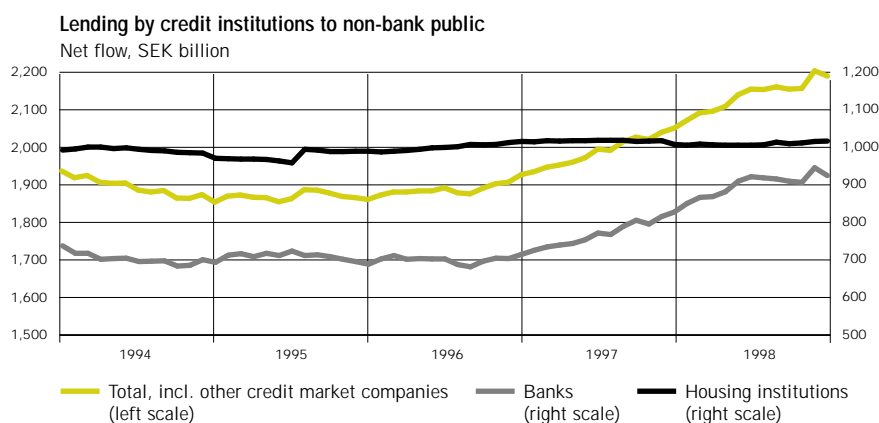
Efficient overnight and repo markets are a major and important component of the Swedish financial system. Banks use the overnight market to manage the daily fluctuations in their liquidity.


The overnight lending rate is confined inside the interest rate corridor which, as mentioned earlier, is decided by the Riksbank. The Riksbank adjusts the corridor so that its mid-point corresponds approximately to the desired level of the overnight rate. This gives banks an incentive to operate in the overnight market; they invest surplus liquidity here and borrow to cover a liquidity shortage. For the banks, this is more advantageous than the alternative of depositing surplus liquidity with the Riksbank and borrowing at the Riksbank's lending rate. Besides banks, the players in the overnight market include housing intermediaries and large manufacturing companies, for example, but they generally receive less favourable interest rates than the inter-bank rates. The National Debt Office participates on the same terms as the banks and can, for example, use overnight operations to parry effects of budgetary fluctuations on liquidity.

Repos, which are basically loans with securities as collateral, supplement the overnight market and carry less risk. In its simplest form, a repo involves an owner of securities transferring them for a specified period to another party, thereby borrowing capital which the other party lends by "buying" the securities. Repos can also be used for taking positions in interest rate futures, e.g. with a view to increasing the returns on a securities portfolio.

Financial intermediaries

Companies can obtain extraneous capital, i.e. financing in excess of their own equity capital, by borrowing either in the securities market or via financial intermediaries in the credit market. Financial intermediaries are specialists in assessing and monitoring the credit risks involved in information-intensive lending to households and small and medium-sized companies. The information costs involved in assessing the credit-worthiness of these borrowers are often too large to allow financing by the securities markets. Small and medium-sized firms in Sweden therefore obtain finance almost exclusively via banks, housing institutions and finance companies.





Financial intermediaries essentially operate by converting the assets represented by the surplus of savings in the various sectors of the economy. This means that the liabilities of credit institutions (the savings invested in them) differ in terms of maturities and risks from their assets (the loans they make). Important financial intermediaries include insurance companies and securities companies, in addition to credit institutions.

STRUCTURAL AND OPERATIONAL CHANGES

The credit market deregulation in the mid-1980s had considerable consequences for the operations of financial intermediaries and contributed to structural adjustments in the form of take-overs and mergers, above all in the bank sector. This was accompanied by a proliferation of other institutions such as finance companies. With the bank crisis and its effects in the early 1990s, the structure of the credit market changed once more. The number of finance companies decreased sharply, and mergers and acquisitions resulted in a fall in the number of banks with subsidiaries. With one exception, however, several more years passed before any changes occurred among the major players. In 1997, Nordbanken AB and Merita Abp combined to form MeritaNordbanken, a bank consisting of a holding company based in Finland; the two banks continue to exist as legal entities under the holding company and Nordbanken has an indirect link to the euro area via Merita's operations in Finland. Another merger in 1997 made Stadshypotek AB a subsidiary of Svenska Handelsbanken AB; Stadshypotek AB now owns the subsidiary Handelsbanken Hypotek AB. Östgöta Enskilda Bank AB was taken over by Den Danske Bank AS and subsequently transformed into a branch. Sparbanken Sverige AB and Föreningsbanken AB also underwent a merger in 1997, establishing FöreningsSparbanken AB. At the same time, Föreningsbanken Kredit AB merged with AB SPINTAB. As recently as 1998, SEB AB acquired Trygg Hansa AB and subsequently closed down Trygg-Banken AB.

Government plans to reduce or terminate State ownership in the financial sector have also left their mark. During the bank crisis the State and the banks each set up their own credit market company, the "liquidation companies" Securum Finans AB and Retriva Kredit AB, to which problem loans and assets were transferred for management. These companies have now been basically wound up. In 1995, components of the state housing loans that had previously been carried on the government balance sheet were transferred to the group of housing institutions. In the

group of other credit market companies, structural changes among the former finance companies have led, as mentioned earlier, to sharp reductions in their number and size.

With the deregulation of credit, the provision of credit has virtually ceased to depend on the purpose of the loan; instead, credit institutions base their decisions on their assessments of the borrower's ability to repay the loan. Following deregulation, it is primarily the collateral and the duration of the interest rate terms for the loan that determine the institution to which the borrower applies. Thus it is quite common for house mortgage loans to be obtained in order to finance the purchase of a car or other consumer durables. In such cases the loan may be provided by either a bank or a housing institution. Identifying borrowing for consumption is therefore more difficult in Sweden than in many other countries. A further complication is that credit stocks are quite regularly transferred within banking groups between parent banks and their housing subsidiaries. The most representative picture of consumption trends in Sweden is accordingly provided by the sum of lending by banks and housing intermediaries.

The legal construction of a Swedish financial intermediary reflects certain distinctive features of banks and housing institutions, for example. Today, however, it is mainly a way of guaranteeing the financial system's transparency and security.

Balance sheet totals and assets of financial institutions, end 1998

SEK billion	Balance sheet total	Loans to non-bank sector	Other loans	Securities	Equity	Other assets
Banks	2,434	941	641	457	101	294
Housing institutions	1,204	1,017	139	10	7	31
Other credit market companies	388	248	27	83	4	26
Insurance companies	1,417	24	–	645	655	93
National Pension Fund	637	23	–	515	55	44
Securities companies	21	6	–	2	4	9
Total	6,101	2,259	807	1,712	826	497
Mutual funds	454			75	367	12

The banks

Banks differ from other credit institutions in that they often finance illiquid loans (unmarketable, risk-bearing loans) with funds deposited by the non-bank public that are available for immediate repayment, i.e. that are fully liquid. Banking operations are regulated by the Banking Business Act, which serves among other things to



Number of banks operating in Sweden

	No. in 1998
Banks	121
Swedish commercial banks	15
Foreign commercial banks	19
subsidiaries	2
branches	17
Savings banks	85
Members' banks	2

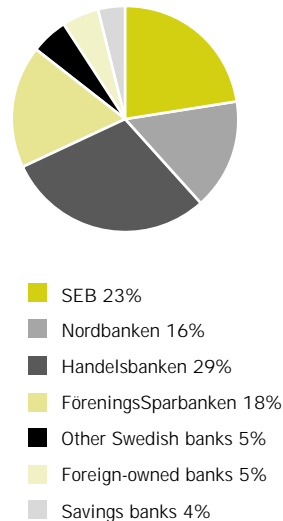
protect the funds of depositors and thus promote financial market stability. In July 1996 the State bank guarantee was replaced by a deposit guarantee that is designed to strengthen consumer protection for the non-bank public's bank deposits. Deposits up to 250,000 kronor are protected in the event of bankruptcy. To finance the deposit guarantee system, banks pay fees to the State to cover the estimated annual long-term costs.

Most Swedish banks offer a comprehensive range of services, including fund management and payment services in addition to granting loans and accepting deposits. They also trade in currency and interest-bearing securities for customers as well as for their own account. There are also branches of foreign banks as well as niche banks, which concentrate primarily on deposits and generally offer their services by telephone or the Internet. Niche banks do not always provide a full range of banking services, such as the mediation of payments and securities. For some time now, virtually all banks have offered their customers facilities for doing banking business via the Internet in entities (Internet banks) that are separate from the rest of the bank. Together with new technology for cash dispensers, the development of cash cards, etc., this may ultimately replace traditional banking services.

Besides the core operations of receiving deposits

Banks' balance sheet totals, end 1998

Total: SEK 2,434 billion





Bank assets, end 1998

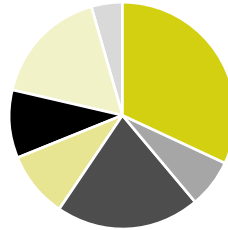
Total: SEK 2,434 billion, of which 1,709 billion in Swedish kronor and 725 billion in foreign currencies



- Swedish non-bank borrowers 29%
- Non-resident non-bank borrowers 10%
- Loans to foreign banks 10%
- Loans to Swedish financial institutions 16%
- Investments in interest-bearing securities 19%
- Other assets 16%

Bank liabilities, end 1998

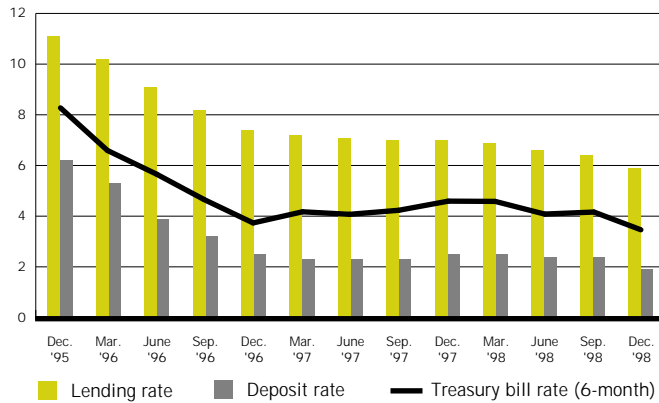
Total: SEK 2,434 billion, of which 1,487 in Swedish kronor and 947 billion in foreign currencies

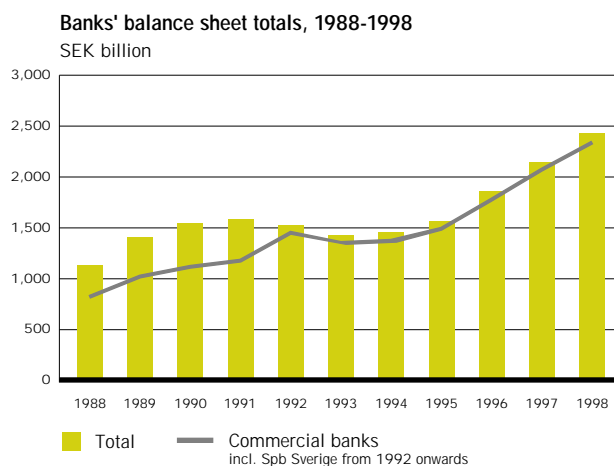


- Swedish non-bank depositors 32%
- Non-resident non-bank depositors 7%
- Deposits from foreign banks 21%
- Deposits from Swedish financial institutions 9%
- Issued securities 10%
- Other liabilities 17%
- Shareholder equity 4%

Average bank lending and deposit rates; treasury bill rate

Per cent





and providing credit, the banks perform an important function as payment intermediaries. Their daily discharge of payment instructions, e.g. paying out a loan or crediting a child allowance to a household's deposit account, leads to wide fluctuations in their cash liquidity. The banks can parry these fluctuations by using the Riksbank's deposit and lending facilities. Differences in liquidity between the banks are evened out in inter-bank trading. This is reflected in short-term lending and deposits between the different banks and other financial institutions.

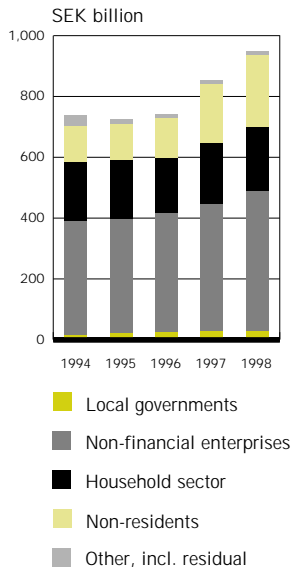
Following the deregulation of the credit market, the banks follow changes in money market rates (with some time lag) in setting the domestic currency lending and deposit rates that they offer the non-bank public. This makes banks' interest rates a link in the transmission of monetary policy to the general economy. However, banks also take factors other than the repo rate into account in setting the lending and deposit rates they offer the non-bank public. The factors influencing the ultimate level of interest rates include the ability of borrowers to repay their loans, which is linked to general economic trends, and the competition for savings from other banks and other types of saving.

The banks are the second largest lenders among credit institutions. The balance sheet total for all the banks at the end of 1998 amounted to SEK 2,434 billion, of which four banks account for just over 85 per cent.

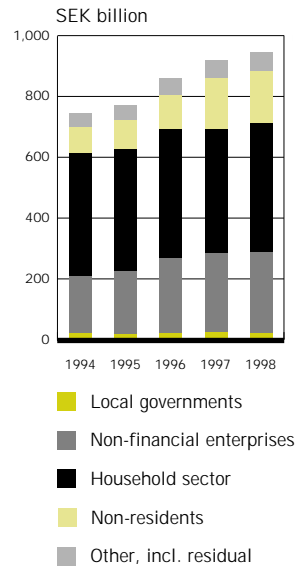
The largest single item in bank assets is loans to the non-bank public, above all to non-financial companies. Lending in foreign currencies grew rapidly in the early 1990s, but after the fixed exchange rate was abandoned these loans were repaid at a



Banks' loan portfolio, 1994-1998



Bank deposits, 1994-1998




Household sector's financial investments

SEK billion	December 1997	December 1998	Change, per cent 1997-1998
Bank deposits*	392	408	4.1
National savings accounts	32	5	-84.4
National Debt Office savings accounts			
National Debt Office accounts	149	146	-2.0
Private bonds			
Premium bonds	262	308	17.6
National savings funds			
Other mutual funds	63	76	20.6
In foreign currency	432	484	12.0
Swedish listed shares	409	459	12.2
Individual pension savings			
Insurance savings	19	19	-
In foreign currency			

Source: Statistics Sweden

* The Riksbank



rapid rate in 1993 and 1994; since then, their share in bank assets has been smaller (about 10 per cent).

In connection with net loan repayments by households and firms, during the bank crisis the banks increased their holdings of securities from around 10 to over 15 per cent of the aggregate balance sheet total. Another reason for banks investing in securities was the low level of capital coverage (ratio between equity and risk-weighted assets) that resulted from heavy loan losses; compared with loans to the non-bank public, the credit risk associated with securities is lower and can therefore be covered by less capital.

Whereas bank lending is directed mainly at non-financial companies, it is financed primarily by deposits from the non-bank public. Developments in deposits depends principally on the alternatives for household saving. This has been particularly apparent since 1995, in that deposits in niche banks and private bonds have given a better return than traditional bank accounts. The increasingly tough competition is evident from the narrowing spread between short-term market interest rates and deposit rates. In the past two years, the steep upward trend in share prices and the public debate about the new pension system have led to higher household saving in shares, mutual funds and various forms of insurance saving. The negative effect this had on bank saving lasted until the stock market fall began in the second half of 1998.

Credit market companies

The credit market also includes more than a hundred specialised financial intermediaries, or credit market companies. The sphere for credit operations is delimited for each institution or group of institutions in the articles of association, which are laid down by the Financial Supervisory Authority. From 1994 onwards, the same legislation applies to both finance companies and the former intermediary institutions.

HOUSING INSTITUTIONS

The operations of the housing institutions cover real estate financing, focusing primarily on residential properties. Loans are secured mainly with real estate mortgages or local government sureties. State credit guarantees are also used. Most of the housing institutions are owned by banks.

The housing institutions have become the largest lending group in the Swedish

Housing institutions' balance sheet total, end 1998

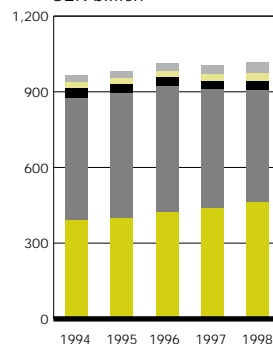
Total: SEK 1,204 billion



- Bokredit i Sverige AB 0%
- Handelsbanken Hypotek AB 9%
- Konungariket Sveriges stadshypotekskassa 5%
- Nordbanken Hypotek AB 11%
- S-E-Banken BoLån AB 9%
- SkandiaBanken BoLån AB 0%
- AB SPINTAB 26%
- Stadshypotek AB 25%
- SBAB, Statens Bostadsfinansierings AB 13%
- Svensk Bostadsfinansiering AB, BOFAB 0%
- Venantius AB 2%

Housing institutions' loans to non-bank public

SEK billion



- One- and two-family houses
- Multi-family housing
- Commercial and office buildings
- Tenant-owned housing
- Other

financial market; with nearly 80 per cent of the aggregate balance sheet total of credit market companies they are the largest group of specialist institutions. There are eleven housing institutions, of which the largest two—Stadshypotek AB and AB SPINTAB—account for over half of this group's balance sheet total, which at the end of 1998 was SEK 1,204 billion.

The volume of lending by housing institutions has turned upwards again. Though weak, this trend still means a break from the tendency in recent years, with the decline in volumes of lending particularly marked in the first half of 1998. The major reason for the weakness in recent years is the very low level of residential construction, which has led to a greatly subdued demand for new loans. Moreover, compared with the early 1990s, more saving by households and housing companies has taken the form of advance repayment of loans. The low demand for new credit has led the

institutions to compete more strongly for the renewal of existing loans. Together with changes in the ownership of certain institutions, this has resulted in sizeable transfers of credits between institutions.

Net loan repayment by housing companies continued in the latter part of 1998. In contrast, as market interest rates fell, household demand for credit rose, reflecting the increased sales of one- and two-family houses and tenant-owned dwellings, at rising prices in metropolitan areas. House and apartment price appreciation has also provided scope for households to add to mortgage loans to finance consumption and property maintenance.

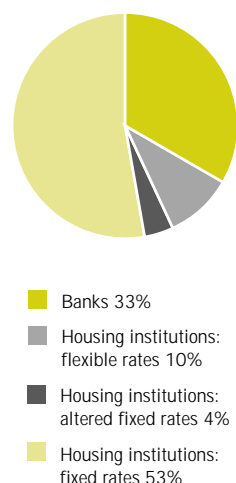
The level of market interest rates, together with customers' expectations of the future levels of short- and long-term rates, influence customers' choices of fixed interest periods and this in turn has consequences for the structure of the housing institutions' financing. The duration of fixed interest periods is also of importance for the transmission of monetary policy: the longer the interest period, the more it detracts from the immediate impact of monetary policy.

The proportion of loans from housing institutions that have a fixed interest period of five years grew by 4 percentage points in 1998 to reach 49 per cent of the total loan stock. The proportion of loans with flexible interest rates also rose by 3 percentage points, reaching 14 per cent.

The housing institutions finance their lending mainly by issuing bonds and certificates on the market. They borrow from the institutions that manage the major financial surpluses in the economy, for instance the National Pension Fund, insurance companies and banks. Borrowing directly from

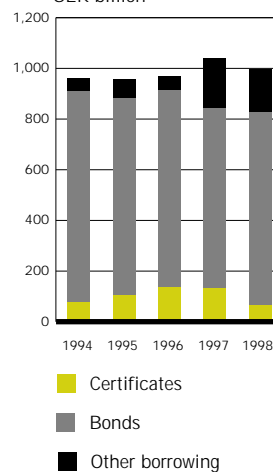
Share of loans from banks and housing institutions with altered interest rates, 1998 Q4

Per cent



Housing institutions' borrowing, 1994-1998

SEK billion



companies and households in Sweden has grown in importance in recent years. Borrowing from households took off in 1995, when the high level of interest rates made interest-bearing alternatives more attractive for household savings; the institutions responded to the demand by issuing private bonds on an increasing scale. The housing institutions have increased their financing in the form of promissory note loans from their parent companies, the banks. Following the abolition of exchange controls in 1989, the institutions have also borrowed in foreign markets; the associated exchange and interest rate risks (in that lending occurs predominantly in the domestic currency) can be limited by using derivatives.

OTHER CREDIT MARKET COMPANIES

Other credit market companies include the former non-housing intermediaries and finance companies. These institutions concentrate on lending to particular segments of the economy, e.g. local governments, agriculture or the corporate sector, and/or specialised financing operations such as export financing. The former finance companies provide firms and households with various forms of financing, such as leasing and factoring (firms), and promissory note loans and credit card accounts (households).

Balance sheet total for other non-housing credit market companies

SEK billion	1994	1995	1996	1997	1998
Other credit market companies	287	274	306	335	388
of which former intermediary institutions	177	176	200	219	247
former finance companies	110	98	106	116	141

Stocks of loans to non-bank public from other non-housing credit market companies

SEK billion	1994	1995	1996	1997	1998
Other credit market companies	185	186	196	214	248
of which former intermediary institutions	101	99	106	114	123
former finance companies	84	87	90	100	125
of which leasing	36	40	44	53	69

Other intermediaries

In addition to banks and specialised credit market companies, the category of financial intermediaries also includes insurance institutions and mutual funds. A breakdown of the assets of these institutions into loans, securities and other assets shows that their dominant investment instrument is securities. Insurance companies and the National Pension Fund also provide loans to companies, local governments and individuals. The other investments of insurance companies are predominantly in real estate.

Mutual funds can be said to combine some of the functions of intermediaries and service providers. Notable service providers that are active in the securities markets include OM Stockholmsbörsen AB and the Central Securities Depository (VPC AB).

Assets of insurance institutions, mutual funds and securities trading companies, end 1998

SEK billion	Balance sheet total	Loans to non-bank public	Interest-bearing securities	Equity	Other
Insurance companies	1,417	24	645	655	93
National Pension Fund	637	23	515	55	44
Mutual funds	454	–	75	367	12
Securities trading companies	21	6	2	4	9

INSURANCE INSTITUTIONS

This group comprises the private insurance companies and the National Pension Fund. The investment capacity of these institutions is determined by the difference between fees and premiums received and investment income, on the one hand, and, on the other, disbursements arising from pension and insurance commitments.

The private insurance institutions comprise traditional life insurance companies, unit-linked life insurance companies and non-life insurance companies. According to the Financial Supervisory Authority's quarterly report on nation-wide companies, at the end of 1998 the assets of these companies amounted to SEK 1,417 billion.

The National Pension Fund has hitherto consisted of six separate funds, each with specific administrative statutes; a seventh fund has been established that will initiate operations when the new pension system comes into effect. The first three funds manage most of the assets in the national supplementary pension system and are also responsible for the disbursement of these pensions; the fourth, fifth and sixth funds invest primarily in shares. The aggregate balance sheet total for the six funds in 1998 came to SEK 637 billion.



MUTUAL FUNDS

The mutual funds manage investments on behalf of savers and their assets consist mainly of shares, mostly in Swedish companies. On 1 July 1998, the National Savings Funds Act ceased to apply and the funds that had been subject to it are now regulated solely by the mutual funds legislation. The tax relief associated with national savings funds had already been discontinued previously. Other types of mutual funds are funds in interest-bearing securities and funds for life insurance premiums that enable policy-holders themselves to decide how their premiums should be invested; different levels of risk can be chosen with consequences for the returns. Net saving in all mutual funds totalled SEK 41 billion in 1998.

SECURITIES TRADING COMPANIES


The securities trading companies have two principal functions. First, they trade in securities in their own name on behalf of customers, for a commission, and second, they buy and sell securities on their own account as market-makers. This means that they offer two-way prices at which they are prepared to both buy and sell securities, thus guaranteeing the liquidity of the market. Authorisation by the Financial Supervisory Authority is required both for trading on commission on behalf of customers and for trading in financial instruments on the company's own account. These companies are also able to extend credit to customers in connection with securities transactions and administrative services, and to accept deposits, to a limited extent, in payment for these services. The companies also participate in market issues of securities.

The securities trading companies, like the commissioned operations of the banks, perform the important functions of mediating between buyers and sellers and of maintaining markets by quoting two-way prices on the securities markets. Trading is undertaken in shares as well as in interest-bearing securities such as treasury bills, certificates and bonds.

As these companies do not take positions—other than intra-day as a rule—in the securities in which they trade, their aggregate balance sheet total is relatively small; in 1998 it was SEK 21 billion.

The new pension system

A reform of the old-age pension system was decided recently, and in this connection the National Pension Fund has been extended to include a seventh fund. The new



pension system, a premium reserve system, is designed as a fund insurance system in which the insurance function is linked to the State. The capital is to be managed in mutual funds administered by independent companies; to be eligible for the task, companies must be authorised for this type of fund management and supervised by the Financial Supervisory Authority. Those who are insured in the system will be entitled to choose funds and fund managers for their pension premiums, defined as 2 per cent of their pensionable income in the period 1995-98, rising to 2.5 per cent as of 1999. Those who do not exercise this choice will have their pension premiums managed by the State in the form of the National Pension's seventh fund.

Pending the introduction of the new system, in the period 1995-98 a certain proportion of the fees paid into the national old-age pension system has been invested in National Debt Office accounts. The pension entitlements in the new premium pension system for the years 1995-97 have been determined in 1999; the corresponding sums were to have been transferred in autumn 1999 from the interim management of the National Debt Office to the Premium Pension Authority, for investment in the mutual funds of the insured's choice or, in the case of insured persons not exercising this choice, in the new seventh National Pension fund. However, because the computer system that was essential for the inauguration of the new administration system was not ready in time, the start has been postponed until autumn 2000. In 1999 too, the funds for the period 1995-97 will therefore continue to be managed in National Debt Office accounts. Those insured will have to wait until the year 2000 to make use of the option of choosing their own fund manager for the premium pension entitlements for the years 1995-98. The total amounts that will then be available for transfer from the National Debt Office to the chosen fund managers are calculated at some SEK 50 billion. Beginning in 2001, the system is expected to function, with choice of fund managers and investment with them occurring each year; premium pension payments for 1999 will be invested in 2001, payments for 2000 in 2002, and so forth.

The old-age pension reform entails a considerable redistribution of incomes and expenditures between the government budget, the National Pension Fund and the new Premium Pension Authority. One of the effects on government financing will be an increased borrowing requirement in the coming years. However, as compensatory transfers are to be made to central government from the National Pension Fund, it is judged that the overall effect on the government budget in the coming years will be positive.




The system of payments

The Riksbank and the system of payments

The mediation of payments is a primary function of the financial system. All operations in this system that represent monetary value (loans and deposits, for example) involve some form of payment transaction. The payment system can be seen as a vehicle for transporting money in the economy. The efficiency and security of the system of payments are vital for the proper functioning of the financial system and thus also for the practical and effective implementation of monetary policy. Besides being responsible for the conduct of monetary policy, the Riksbank is required by law to “promote a safe and efficient payment system”. However, because the mediation of payments is closely bound up both with the implementation of monetary policy and with other financial operations, the Riksbank has not only to consider the mediation of payments as such, but also to examine and analyse the overall functioning of the financial system and its general tendencies. The Riksbank analyses and oversees systems and markets in general, thus complementing the supervision exercised by the Financial Supervisory Authority, which concentrates primarily on individual institutions.

The Riksbank has three main functions in the system of payments:

- to provide means for final payment (notes and coins, as well as deposit and lending facilities for banks in Riksbank accounts), i.e. assets that do not entail a credit risk for the holder;

- 
- to provide a basic infrastructure in the form of access to notes and coins³, the RIX system, etc.; and
 - to exercise general supervision of the system of payments and those involved in it throughout Swedish society.

The basic reason for the Riksbank's commitment is that, like other forms of infrastructure in the general economy, such as roads and railways, the system of payments is associated with external effects. This means that the costs and receipts are not fully visible to or open to the influence of the individual producer. There is therefore a risk that the market will not arrive unaided at the solutions that are best for society in general. Besides specific questions of security and confidence in connection with notes and coins, the most important factor to monitor is systemic risk, that is, the risk that effects of the failure of one agent or some other disturbance in the system will spread in ways that individual agents are incapable of mastering on their own. Such risks, which may threaten to disrupt the entire system of payments, are primarily connected with the settlement of payments, often very large, between different financial institutions. The Riksbank accordingly concentrates on large payments and the arrangements for making them.

For the Riksbank the primary objective is thus to identify and reduce systemic risks. In the event of a failure, e.g. the bankruptcy of a financial institution, the Riksbank can act in its capacity as lender of last resort to limit the damage to society in general. The Riksbank is able to provide temporary liquidity to Swedish financial institutions in such situations, but it does not have the task of solving solvency problems. Clarifying whether a bank in need of additional liquidity is solvent or not tends to be a complicated matter that requires knowledge about the institutions and their markets.

As part of its supervision of the system of payments, the Riksbank publishes a half-yearly report on "Financial stability", in which it presents its assessment of existing risks to the stability of the system. The analysis focuses largely on risks in the banking sector, since banks are the companies that are most important for the system of payments and it is mainly in them that there is a risk of problems arising.

³ As of 1 June 1999, the Riksbank has begun to operate via its wholly owned subsidiary PSAB Pengar i Sverige AB. This company will manage the distribution of notes and coins in Sweden, as well as providing such services as the sorting and counting of money. The Riksbank will continue to supervise the management of cash in Sweden, including the operations of PSAB.



Payment instruments

Payments between economic agents can be arranged in notes and coins or by transferring funds between bank accounts. The latter arrangement accounts for an overwhelming proportion of the total value of transfers. In order to process payments between accounts, payment intermediaries are needed, and these are mainly banks and clearing organisations; they keep the accounts and maintain technical facilities, rules and ancillary financial services so that money can be moved safely and efficiently between accounts, both within and between different financial institutions. The system of payments can be seen as the sum of these facilities.

Where so-called retail payments (payments by households and companies) are concerned, recent developments have been marked by the rapid spread of electronic techniques. Telephone banks, Internet banks and rapidly increasing numbers of payment terminals and cash dispensers have promoted a growing use of various types of account cards and of electronically generated payments. Electronic money has also begun to be used as an alternative to coins and notes of small denomination in making small purchases. The function involved is available in the form of separate plastic cash cards or integrated with traditional bank cards.

The Swedish version, which is operated by three of the four major banks, is based on the PROTON system that has been in operation for some time in Belgium, for example. As the "money" is stored in a chip, payments can be made off-line, without identity and card checks. This makes the use of cash cards cheaper and quicker than traditional account card transactions. The technique can also be used with a personal computer for payments via the Internet, though this type of system is still in its infancy.

Agents

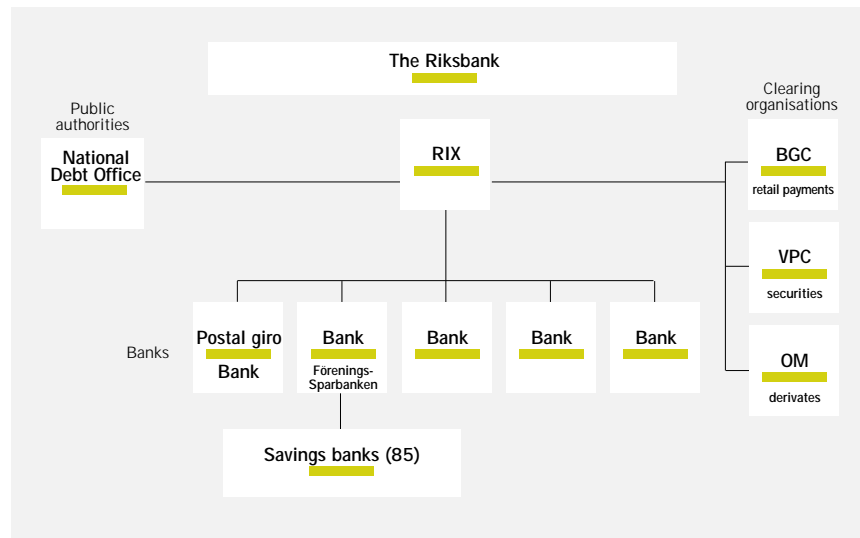
The system of payments is supported by the Riksbank and the banks, with the banks' deposit accounts as its foundation. The Riksbank can be seen as the hub of this network: the banks' accounts with the Riksbank are used for direct inter-bank payments as well as for the settlement of bank customers' inter-bank payment instructions. This is arranged by means of the Riksbank's RIX system.

In addition to the Riksbank and the banks, there is a further important category of agents, namely clearing organisations such as the BankGiro Centre (BGC), the Central Securities Depository (VPC) and OM Stockholmsbörsen. In the management of liquidity, these organisations can be said to function as service agencies to the

banks; they process payment instructions for final settlement against accounts in the banks.

In recent years, forms of payment services that are partially new and are provided by new agents have come into being, for instance paycard systems set up by retail chains and petrol companies, in some cases with deposit and lending facilities. To date, however, these companies have not acted as payment intermediaries; thus, they only handle bilateral payments between themselves and their customers and do not mediate payment instructions involving third parties. Better opportunities for companies other than banks to provide payment services have been proposed in the official reports of the committees of inquiry on Regulation and Supervision of Banks and Credit Market Companies (SOU 1998:160) and Cash Services (SOU 1998:159).

Structure of the Swedish system of payments



The RIX system

In the RIX system, payments can be settled continuously, one by one, by transferring funds between the banks' accounts in the Riksbank, thereby making the funds immediately available for new payments throughout operating hours. The RIX system is based on the principle of real time gross settlement (RTGS), a concept that has now



also been introduced in all EU countries as a basis for the TARGET system, the common network for large payments in euros.

By means of their accounts in the RIX system, the banks can obtain credit from the Riksbank (since 1 January 1995, full collateral in the form of securities has been required): intra-day to ensure a smooth flow of payments and overnight as part of the practical implementation of monetary policy. The RIX system is accordingly also a part of the monetary policy infrastructure.

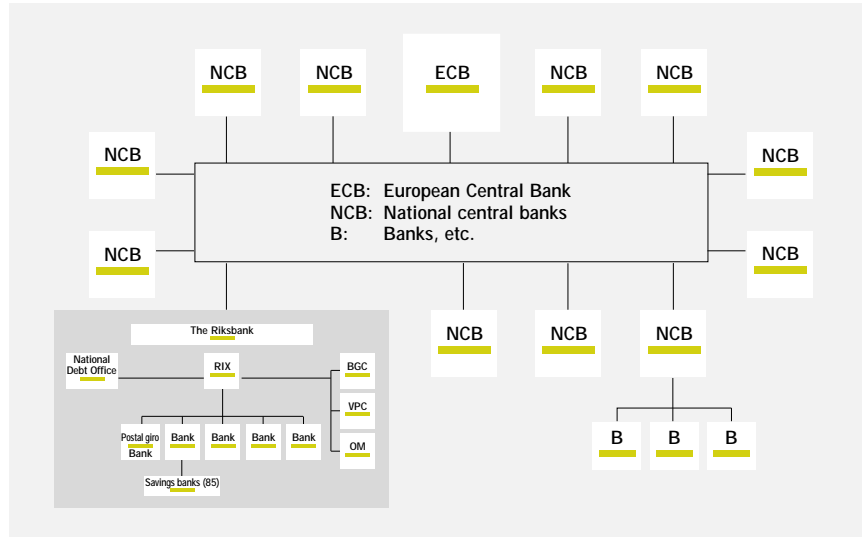
Besides the Riksbank, at the end of 1998 there were 22 institutions participating in RIX. All of these were banks, with the exception of the BankGiro Centre (BGC), the Central Securities Depository (VPC), OM Stockholm AB and the National Debt Office. In 1998 the number of transactions averaged about 1,500 a day and daily turnover averaged about SEK 350 billion, which is equivalent to about 20 per cent of GDP. In other words, a turnover equivalent to annual GDP is generated by the system about every five days.

DEVELOPMENTS IN THE RIX SYSTEM

The RIX system has been modified and developed in several respects in recent years. The common denominators of the changes have been to provide the agents with an incentive to improve their risk management, to render the system more transparent and to adapt it to changes in the rest of the world, in particular to the requirements arising out of European central bank cooperation. To this end, the RIX system, along with other national systems, is being adapted so that these systems can be linked up to form the TARGET system, which went into operation when the European Economic and Monetary Union was created on 1 January 1999. Although Sweden is not participating initially in the Economic Monetary Union (EMU), the Riksbank and Swedish banks can use the system for euro payments, subject to certain restrictions as regards the supply of euro liquidity. This means that in practice, there is one RIX system, K-RIX, which continues as previously to handle payments in Swedish kronor, and a second system, E-RIX, for handling payments in euros.

Work on the RIX system in 1998 was therefore marked in a high degree by preparations for and adjustments to the TARGET system. Besides the preparations for EMU, work was done in the domestic field mainly to enable integration between the RIX system and the banks' internal computer systems. The specific changes to the RIX system in recent years include new times for the registration and settlement of different types of payments, and longer opening hours.

The TARGET system



Statistical appendix

Lending by credit institutions to non-bank public

SEK billion	Total	Banks	Housing institutions
<i>1994</i>			
March	1,907	702	1,001
June	1,886	696	995
Sept.	1,865	684	987
Dec.	1,852	694	971
<i>1995</i>			
March	1,867	709	969
June	1,863	724	959
Sept.	1,878	709	989
Dec.	1,861	689	990
<i>1996</i>			
March	1,881	702	992
June	1,892	703	1,000
Sept.	1,891	697	1,007
Dec.	1,927	715	1,016
<i>1997</i>			
Jan.	1,935	726	1,015
Feb.	1,947	735	1,018
March	1,953	740	1,017
April	1,960	744	1,018
May	1,972	754	1,018
June	1,995	772	1,019
July	1,992	768	1,019
Aug.	2,015	790	1,019
Sept.	2,027	806	1,016
Oct.	2,021	796	1,017
Nov.	2,040	816	1,018
Dec.	2,051	828	1,008
<i>1998</i>			
Jan.	2,072	851	1,006
Feb.	2,092	867	1,009
March	2,096	869	1,007
April	2,109	882	1,006
May	2,140	910	1,006
June	2,155	922	1,006
July	2,154	919	1,007
Aug.	2,161	916	1,014
Sept.	2,155	910	1,010
Oct.	2,157	907	1,012
Nov.	2,204	946	1,016
Dec.	2,190	925	1,017

Money supply; M0, M3 and M3+

12-month change, per cent			
	M0	M3	M3+
<i>1994</i>			
March	7.5	6.2	-0.9
June	5.2	6.5	1.0
Sept.	5.7	4.5	4.3
Dec.	2.6	0.3	3.1
<i>1995</i>			
March	1.0	-2.8	-0.9
June	1.9	-2.7	-1.6
Sept.	3.6	-0.0	-3.8
Dec.	-0.4	2.7	0.1
<i>1996</i>			
March	0.4	9.4	6.6
June	1.9	10.4	8.5
Sept.	1.9	11.3	9.7
Dec.	5.3	11.5	10.6
<i>1997</i>			
Jan.	5.3	7.5	7.6
Feb.	5.8	7.4	6.6
March	7.4	6.5	5.5
April	5.4	4.3	2.3
May	5.1	4.1	2.7
June	4.7	5.4	3.5
July	5.0	3.2	1.1
Aug.	4.0	4.6	3.0
Sept.	3.7	2.2	0.3
Oct.	5.7	3.4	2.0
Nov.	4.6	1.3	-0.5
Dec.	3.0	1.3	-0.4
<i>1998</i>			
Jan.	4.8	3.8	0.5
Feb.	4.4	3.0	-0.4
March	1.3	-0.6	-4.1
April	4.0	2.4	-1.8
May	4.8	2.6	0.4
June	4.4	2.8	-0.5
July	6.9	5.5	1.9
Aug.	6.4	3.9	-0.4
Sept.	5.6	4.8	2.1
Oct.	6.5	5.9	0.4
Nov.	6.0	5.6	-0.6
Dec.	5.1	2.1	-2.9

Financial institutions: balance sheet totals and market shares

December 1998		Balance sheet total, SEK billion	Market share, Per cent
	No.		
Banks	121	2,434	40
Swedish-owned commercial banks	17	2,216	36
Foreign-owned commercial banks	19	125	2
Subsidiaries	2	16	0
Branches	17	109	2
Savings banks	85	93	2
Housing institutions	11	1,204	20
Other credit market companies	86	388	6
Securities trading companies	42	21	0
Insurance companies	126	1,417	23
National Pension Fund	6	637	11
Total	—	6,101	—
Mutual funds	394	454	—

Banks: balance sheet totals, end 1997 and 1998

	1997		1998	
	SEK billion	Per cent	SEK billion	Per cent
Commercial banks	2,077	97	2,341	96
SEB	535	25	553	23
Nordbanken	330	15	382	16
Handelsbanken	595	28	722	29
FöreningsSparbanken	411	19	426	18
Other Swedish-owned	140	7	133	5
Foreign-owned banks	66	3	125	5
Subsidiaries	13	1	16	1
Branches	53	2	109	4
Savings banks	73	3	93	4
Total	2,150	100	2,434	100

Banks: assets, end 1997 and 1998

SEK billion	1997	1998
Loans to Swedish non-bank public	646	702
Loans to non-resident non-bank public	195	239
Loans to foreign banks	302	253
Loans to Swedish financial institutions	323	387
Investments in interest-bearing securities	341	457
Other	343	396
Total	2,150	2,434
in SEK	1,472	1,709
in other currencies	678	725

Banks: liabilities, end 1997 and 1998

SEK billion	1997	1998
Deposits from Swedish non-bank public	752	778
Deposits from non-resident non-bank public	169	169
Deposits from foreign banks	388	506
Deposits from Swedish financial institutions	207	224
Issued securities	168	241
Other	363	408
Shareholders' equity	103	108
Total	2,150	2,434
in SEK	1,387	1,487
in other currencies	763	947

Bank loans to and deposits from non-bank public

SEK billion	Loans		Deposits	
	1997	1998	1997	1998
Local governments	29	28	23	22
SEK	28	27	23	22
Other currencies	1	1	0	0
Non-financial enterprises	417	460	262	266
SEK	348	396	232	241
Other currencies	69	64	30	25
Household sector	198	211	406	425
SEK	196	209	406	425
Other currencies	2	2	0	0
of which:				
Unincorporated business	47	57	47	51
SEK	46	56	47	51
Other currencies	1	1	0	0
Non-residents	195	236	169	169
SEK	15	10	24	21
Other currencies	180	226	145	148
Other, incl. residual	14	13	60	65
SEK	12	12	55	59
Other currencies	2	1	5	6
Total	853	948	920	947
SEK	599	654	740	768
Other currencies	254	294	180	179

Average bank lending and deposit rates; treasury bill rate

Per cent	Lending rate	Deposit rate	T-bill rate
<i>1994</i>			
March	10.76	4.69	7.10
June	10.56	4.68	7.12
Sept.	10.60	4.73	8.34
Dec.	10.64	4.91	8.47
<i>1995</i>			
March	10.87	5.26	9.10
June	11.30	5.71	9.52
Sept.	11.29	5.79	9.03
Dec.	11.11	6.16	8.30
<i>1996</i>			
March	10.21	5.28	6.62
June	9.12	3.88	5.68
Sept.	8.20	3.17	4.69
Dec.	7.38	2.47	3.76
<i>1997</i>			
March	7.19	2.33	4.20
June	7.05	2.33	4.10
Sept.	6.99	2.34	4.26
Dec.	7.01	2.50	4.62
<i>1998</i>			
March	6.87	2.46	4.61
June	6.63	2.44	4.11
Sept.	6.38	2.37	4.19
Dec.	5.94	1.91	3.49

Housing intermediaries: balance sheet totals, end 1997 and 1998

	1997		1998	
	SEK billion	Per cent	SEK billion	Per cent
Bokredit i Sverige AB	1	0	0	0
Föreningsbanken Kredit AB	39	3		
Handelsbanken Hypotek AB	115	9	102	9
K Sveriges Stadshypotekskassa	91	8	56	5
Nordbanken Hypotek AB	119	10	131	11
SEB BoLån AB	102	8	109	9
SkandiaBanken Bolån AB	4	0	6	0
AB SPINTAB	266	22	317	26
Stadshypotek AB	304	25	297	25
SBAB, Statens Bostadsfinansierings AB	141	12	155	13
Svensk Bostadsfinansiering AB, BOFAB	2	0	1	0
Venantius AB	34	3	30	2
Total	1,218	100	1,204	100

Housing institutions' stock of loans to non-bank public

SEK billion	1994	1995	1996	1997	1998
One- and two-family houses	389	397	423	439	463
Multi-family housing	484	497	497	471	443
Commercial and office buildings	40	36	37	32	35
Tenant-owned housing	27	25	27	29	33
Other	24	25	29	35	41
Total	964	980	1,013	1,006	1,015

Housing institutions' borrowing

SEK billion	1994	1995	1996	1997	1998
Certificates	79	104	137	131	66
Bonds	832	778	777	712	762
Other borrowing	49	75	53	196	167
Total	960	957	967	1,039	995
In foreign currencies	5	4	2	0	108

Issuers and investors in the bond market

SEK billion	1994	1995	1996	1997	1998
<i>Issuers</i>					
Swedish government	516	698	746	802	808
Housing institutions	838	792	660	588	657
Banks	27	23	28	40	46
Other financial institutions	41	37	46	46	40
Companies and local govts.	58	61	72	76	93
Total	1,480	1,611	1,552	1,552	1,644
<i>Investors</i>					
National Pension Fund	433	448	419	434	499
Insurance companies	334	397	414	429	500
Banks	187	198	207	185	231
Non-residents	112	143	183	224	222
Others	414	425	329	280	192
Total	1,480	1,611	1,552	1,552	1,644

Issuers and investors in the money market

SEK billion	1994	1995	1996	1997	1998
<i>Issuers</i>					
Swedish government	275	202	189	147	231
Housing institutions	79	104	137	129	55
Banks	5	9	15	20	20
Other financial institutions	13	15	14	15	16
Companies and local govts.	14	16	23	36	48
Total	386	346	378	347	370
<i>Investors</i>					
National Pension Fund	30	33	68	64	9
Insurance companies	35	25	45	46	36
Banks	143	116	91	69	115
Non-residents	56	72	47	32	67
Others	122	100	127	136	143
Total	386	346	378	347	370