# Housing finance in advanced countries

By Dimitri Vittas, Patrick Frazer and Thymi Metaxas-Vittas*

THE 1980s have experienced a major transformation in the structure, functioning and efficiency of national retail banking markets. Deregulation, electronic technology and a major shift in market power in favour of consumers have led to more intense competition, a wider range of products and services, and higher all-round efficiency to the great benefit of consumers.

The continuing economic prosperity and financial stability, which now cover a period of over 40 years, underlie the massive expansion in the demand for sophisticated financial services and the growing importance of the financial services industry in most advanced countries.

These changes are reflected in the evergrowing size of household financial wealth (which in some countries has now reached 200% of gross national income and nearly 300% of personal disposable income), the dramatic changes in the composition of financial wealth (with contractual savings and marketable securities having gained considerably at the expense of deposits and other liquid assets, at least until the stockmarket crash last October), and the growth in household debt.

*Major trends*

For a long time, national housing finance markets were characterised by inefficient practices and a very slow transfer of financial technology between countries. However, the past five years or so have witnessed a tendency for domestic markets to converge by adopting practices and patterns of mortgage lending that have proved successful in other countries. This trend has been reinforced by the increasingly important role played by foreign lending institutions in a number of domestic housing markets.

Housing finance markets have been affected by three major trends:

- the integration of retail and wholesale markets;
- the spread of securitisation; and
- the use of unitisation, by linking mortgages to insurance policies and pension plans that are themselves linked to investments in unit trusts.

*Rapid growth*

Housing finance has increased rapidly in all advanced countries over the past three decades or so, stimulated by the substantial economic and social advantages of owner occupation such as security of tenure, preservation of real value of assets, availability of relatively cheap finance, and the possibility of high financial gearing.

In most countries, the demand for housing finance has been further stimulated by extensive fiscal advantages such as exemption from income tax of the imputed rental income from owner-occupied property, total or partial exemption from capital gains tax, tax deductibility of mortgage interest, and exemption from stamp duty. However, during the 1980s some countries have experienced a relatively small growth in housing finance, mainly because of a stagnation in the market when interest rates hit record high levels in the early 1980s.

Table 1 shows the levels of household debt in relation to GNP for the 10 countries covered in this article. It can be seen that Australia, Canada, France and the Netherlands had a lower housing debt ratio in 1986 than in 1981. By contrast the United Kingdom, Sweden and the United States experienced a considerable increase in this ratio. The rise was particularly large in the United Kingdom which now has the highest reported housing debt ratio in the world.

However, the housing debt ratio is probably actually highest in Sweden if account is also taken of the housing loans that are included in reported statistics with data on consumer credit.

This helps to underline the point that the distinction between housing finance and consumer credit in reported statistics is not always very meaningful. A significant amount of housing finance is effectively consumer credit, which is disguised by the fact that it is secured by a mortgage on the borrower's home. Consequently, it is probably better to make international comparisons on the basis of total household debt.

This approach received considerable support from the phenomenal success of home equity loans which allow consumers to finance any type of expenditure by borrowing against the free equity in their homes. Home equity loans were first introduced in the United States but have now spread to several other countries.

The table shows that the United States has the highest level of house-

*All three authors write in a personal capacity.*

hold debt in relation to gross national income, followed by Sweden and the United Kingdom. By far the greatest increase between 1981 and 1986 occurred in the United Kingdom. It is notable that the total household debt ratio declined in both Canada and the Netherlands, though in Canada at least, household debt has resumed its fast growing trend after the stagnation of the early 1980s.

**Table 1: Household Debt**

*(per cent of GNP)*

| | | *Consumer credit* | *Housing finance* | *Total household debt* |
|---|---|---|---|---|
| Australia | 1986 | 12.2 | 18.6 | 30.8 |
| | 1981 | 7.1 | 21.4 | 28.5 |
| Canada | 1986 | 13.5 | 30.9 | 44.4 |
| | 1981 | 14.5 | 33.1 | 47.6 |
| France | 1986 | 3.1 | 19.8 | 22.9 |
| | 1981 | 2.5 | 20.2 | 22.7 |
| Germany | 1986 | 8.4 | 33.1 | 41.5 |
| | 1981 | 9.3 | 27.5 | 36.8 |
| Italy | 1986 | 2.7 | 6.7 | 9.4 |
| | 1981 | 2.4 | 5.0 | 7.4 |
| Japan | 1986 | 11.2 | 19.4 | 30.6 |
| | 1981 | 5.6 | 18.5 | 24.1 |
| Netherlands | 1986 | 2.8 | 29.9 | 32.7 |
| | 1981 | 3.6 | 31.1 | 34.8 |
| Sweden | 1986 | 16.2 | 38.5 | 54.7 |
| | 1981 | 15.6 | 30.2 | 45.8 |
| UK | 1986 | 8.1 | 40.7 | 48.8 |
| | 1981 | 6.7 | 24.9 | 31.6 |
| USA | 1986 | 21.8 | 38.8 | 60.6 |
| | 1981 | 14.6 | 34.4 | 49.0 |

Source: *The Retail Banking Revolution*, Second Edition.

*Systems of housing finance*

It is possible to distinguish five different systems of housing finance:

- variable-rate loans funded with short-term deposits: the interest rate risk is assumed by borrowers but use of interest rate caps and/or payment caps provide some protection;
- fixed-rate loans funded with short-term deposits: borrowers assume no interest rate risk but lending institutions are exposed to an asymmetric interest rate risk;
- fixed-rate loans funded with fixed-rate bonds: neither borrowers nor lenders assume interest rate risk which is effectively transferred to bondholders;
- fixed- or variable-rate loans funded with contractual deposits; and
- fixed- or variable-rate loans that are securitised and supported by organised secondary mortgage markets: the interest rate risk may be assumed by borrowers or lenders or transferred to investors in secondary mortgage markets.

Each of these systems is in use, either singly or in combination, in at least one of the 10 countries covered by this study.

The UK market has long been based on the first system. Although fixed-rate and capped variable-rate mortgages have been offered in recent years, the predominant mode of finance continues to be the uncapped variable-rate mortgage with informal payment caps. These limit the impact of large rises in mortgage rates on the monthly payments of borrowers by extending the maturity of the mortgage.

The ability of UK building societies and commercial banks to supplement their deposit resources with wholesale funds (a direct result of the integration of wholesale and retail markets) and the entry into the market of lenders that are funded through the secondary mortgage market explains to a large extent the spectacular growth in housing finance in the United Kingdom during the 1980s and the abrupt end of mortgage queues and non-price rationing.

Variable-rate mortgages funded with short-term deposits are also used extensively in Australia and other Commonwealth countries and their use is spreading in France, Germany and the United States.

Banks in Canada, the Netherlands and Germany offer rollover mortgages that impart some short-term stability on interest rates without exposing lending institutions to the risks of interest rate mismatching for the full term of the loan. Rollover mortgages expose borrowers to the risk of substantial increases in their monthly payments when the mortgage rate is reset — usually every five years, but more frequently in some cases. The problems faced by borrowers in Canada in the early 1980s gave rise to a major political storm directed against the lenders.

In the United States, housing finance was traditionally based on the second system — long-term fixed-rate loans financed by short-term deposits. The substantial interest rate risk assumed by lending institutions under this system has caused major problems among savings and loan associations. As a result, their role in housing finance has declined considerably in recent years.

Variable rate mortgages have been introduced in the form of adjustable rate mortgages (ARMs) where the mortgage rate is linked to a published index of market rates and is adjusted at regular intervals. Adjustable rate mortgages are normally subject to periodic as well as life interest rate caps.

Two recent innovations are the convertible adjustable rate mort-

→ 30

←29

gage, which permits conversion to a fixed-rate mortgage, and the fixed payment ARM, which in addition to a rate cap is also subject to a payment cap.

The third system of housing finance — fixed-rate, long-term loans funded by long-term funds — is found extensively in Scandinavian and other continental European countries. The bonds issued by mortgage lending institutions are bought by institutional investors as well as banks.

The fourth system — fixed-rate long-term loans based on contractual savings — is mainly found in Germany and, to an increasing extent, in France. A notable feature of contractual schemes in both Germany and France is that they generally form part of housing finance packages that incorporate mortgages granted on more conventional terms. These packages are often put together by the universal banks.

The fifth system of housing finance is based on the operation of organised secondary mortgage markets. The growth of this system is closely associated with the securitisation of mortgage lending.

Secondary mortgage markets enable lending institutions to refinance their fixed-rate, long-term loans and thus reduce their exposure to interest rate mismatching. Such markets have long existed in the United States, Canada and France and have recently also been developed in Australia and the United Kingdom. However, only in the United States has the market been particularly active.

In the United States the development of the secondary mortgage market has been supported by the operations of several government sponsored institutions. In recent years, the market has expanded considerably and now covers all types of mortgages — fixed as well as adjustable rate, and even convertibles — whilst the types of mortgage-backed securities issued in the markets have included conventional fixed-rate, fixed-term securities as well as stripped and/or tranched securities.

Stripped securities separate the repayment of principal from the payment of interest and effectively transform mortgages into zero-coupon securities, whilst tranched securities split the projected cashflow of mortgages into tranches of different maturities. Issues of tranched securities may also have a subordinated tranche which provides a guarantee to institutional investors that defaults as well as early repayments will be assumed in the first place by the originating institution.

*Impact of securitisation*

The securitisation of mortgage lending in the United States is gradually transforming a housing finance system based on short-term deposits into one based on long-term funds collected by institutional investors and invested in mortgage-backed securities.

In Sweden and other continental countries, mortgage lending has long been funded with issues of long-term bonds. It could be argued, therefore, that some European mortgage markets have long been securitised. Nevertheless, the reliance on priority bonds and the lack of any secondary activity or market innovation suggest that there is a fundamental functional difference between the securitisation of mortgages that is now taking place in the United States and the bond-based mortgage markets of some European countries.

Securitisation has profound implications for the structure of the housing finance markets since it allows investment banks, institutional investors and other entities without large networks of retail outlets to play an active part in housing finance. Securitisation has taken hold in the United States where is has been stimulated by the strength of the securities markets and investment banks, by the weakness of traditional mortgage lending institutions such as savings and loan associations and commercial banks, and by the growing importance of institutional investors as collectors of personal savings.

In other countries, only the last of these factors is of real significance. However, the emphasis that is now placed by most countries on developing their securities markets, and on encouraging the personal sector to invest in marketable securities, suggests that securitisation will also spread to other advanced countries.

The Canadian secondary mortgage market has grown considerably in recent years, supported by the operations of the Canada Mortgage & Housing Corporation.

*Lottery element*

It is in many respects ironic, but not surprising, that the United States has proved to be a hotbed of innovations in housing finance. Despite the successful introduction of a wide range of innovations on both the lending and funding side of the market, the US housing finance market remains quite fragmented and fraught with inefficiencies that increase the total costs to borrowers.

The continued emphasis on fixed-rate loans imparts a lottery element to the system which benefits those borrowers who are lucky enough to obtain their loans when interest rates are low, but which burdens everyone else with heavy financing costs or asymmetric risks.

The variable rate mortgage system with informal payment caps which building societies have perfected over the years in the United Kingdom seems to be a superior and fairer system that reduces rather than magnifies the lottery element that is inherent in any housing transaction. ■

*This article is based on the findings of the authors' recently-published study: "The Retail Banking Revolution", published by Lafferty Publications. The study compares the retail banking markets of ten advanced countries — the Group of Seven countries plus Australia, the Netherlands and Sweden.*