# Mortgage Securitisation in the UK: An Emerging Market?

### by Tim Freeman

#### INTRODUCTION

UK mortgage securitisation market has developed from its first public bond issue by a little known company in 1987 to a point where it now features in the financial planning of many of the country's largest banks and building societies. The market has developed against the background of the boom and bust of the UK's housing and mortgage markets in the second half of the 1980's and early 1990's. It is a testament to the resilience of the technique itself and the financings it has spawned that securitisation is now more widely regarded than ever before amongst UK mortgage lenders and no mortgage-backed security - senior or subordinated - has defaulted despite the worst housing market in living memory. The next challenge for mortgage securitisation in the UK is to become an accepted financing technique by the mainstream lenders. The next few years will determine whether securitisation is to the 1990's what swaps were to the 1980's or just a minor chapter in the history of the markets.

### HISTORICAL BACKGROUND TO UK MORTGAGE SECURITISATION

The residential mortgage market in the United Kingdom has experienced more change since the beginning of the 1980's TIM FREEMAN is Assistant Director of Baring Brothers and Company Limited, London.

than in its previous 150 years of history. Building societies, whilst remaining the dominant force in the mortgage industry, no longer control the market or determine in isolation the levels of retail savings and mortgage rates. From the early 1980's, the major banks began both to compete actively for retail savings and, with the removal of restrictions on their lending, to compete for a share of residential mortgage lending - increasingly seen as the linchpin of personal customer relationships. Suddenly, after a century and a half of relative comfort, building societies were under attack on both sides of their balance sheets.

By 1983, the challenge to the building societies was recognised by government and regulators with the result that new legislation allowed societies to make active use of wholesale funding markets as a supplement to their traditional retail savings based funding. From just a few hundred million pounds in 1983, building societies were borrowing over fifty billion from the wholesale markets by the end of 1993. Most societies now take between 15% and 25% of their funding from wholesale sources and that proportion is gradually increasing as retail savings become more scarce and expensive.

From 1984 onwards, a number of factors combined to make residential mortgage lending attractive to a variety of institutions which had not previously been involved in the industry. Mortgage Rate-to-LIBOR margins had begun to maintain a consistent

and attractive level (as shown in Figure 1): credit losses had always run at a very low level in the UK and booming house prices made the risk of loss seem even more remote; business was plentiful as the government encouraged home ownership with incentives at every rung of the housing ladder. No wonder then that foreign banks spotted (what they thought was) a quick and profitable asset play and the pension and life assurance companies provided their sales forces with attractive mortgage products to aid the sales of their core products. Between 1984 and 1987, bank and insurance company mortgage lending grew at twice the rate of building societies' lending.

It was also the economic conditions and development of the UK's mortgage and housing markets during the mid 1980's that led to the establishment and spectacular growth during the second half of the decade of a new breed of mortgage lenders. Specialist mortgage companies, or "centralised lenders" as they are often called, sought to carve out a niche in the market by combining a low cost base with modern, efficient systems and a revolutionary approach to product development with the latest techniques in financing. From a standing start in 1985, companies such as National Home Loans Corporation, The Mortgage Corporation and Household Mortgage Corporation were quickly achieving together a market share in excess of 10% of net new mortgage advances in both 1987 and 1988.

The success of the centralised lenders in

# NITED KINGDO

200 100 0 -100 -200 -300 -400 -500 Jan-80 Jan-86 Jan-93 Average Differential = 59.9 basis points

Figure 1 : Mortgage Rate / LIBOR Differential 1980 1993

competing for new business depended upon a healthy margin between mortgage rates and wholesale funding costs, their ability to develop non-status, deferred interest and treasury based (e.g., fixed rate, capped and collared) mortgage products which met borrower requirements and, by no means least, their early recognition that mortgages would be sold increasingly via brokers and intermediaries and ever less through the branch networks of banks and building societies. From just a few hundred million pounds in 1985, centralised lenders' new business commitments rose rapidly to over £5 billion in 1988 before virtually disappearing over the past two years. It would not have been possible for these mortgage companies to finance their growth if it had not been for the introduction to the UK of the technique known as securitisation.

### DEVELOPMENT OF THE SECURITISATION MARKET

Securitisation of mortgages and other assets had been big business in the United

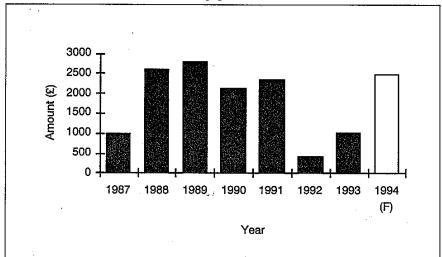
States since the early 1980's, but was virtually unknown in the UK until 1987. Honourable mentions must be given to Bank of Scotland and Bank of America, both of whom undertook pilot securitisation exercises in 1985 and 1986 using many of the techniques that are now recognised as standard. Credit for the first UK mortgage securitisation, however, is usually given to National Home Loans Corporation for the £50 million issue by NHL 1 in March, 1987. This issue set the tone for the first couple of years of the market by being triple A rated and relying on pool insurance for its method of credit enhancement.

Whilst National Home Loans Corporation was first out of the blocks, it was followed within months by The Mortgage Corporation and Household Mortgage Corporation. All of these companies were established specifically with the intention of securitising their mortgage assets; by December, 1987, however, Chemical Bank had become the first foreign bank to securitise its UK mortgages, basing its Domus Mortgage Finance issue on "old" mortgages written in the early 1980's. The next two years saw rapid development in the securitisation markets on the back of booming housing and mortgage markets. The trend in new issuance of mortgage-backed securities is shown in Figure 2, with a £5 billion market growing from scratch in less than three years.

The speed of development of UK mortgage securitisation can be gauged by comparing the level of issuance with the capital markets funding activities of the building societies. Figure 3 demonstrates that for several years, the UK capital markets absorbed a greater volume of mortgage-backed securities than building society issues. The key to this was the triple A ratings enjoyed by almost all new mortgage-backed issues. This feature encouraged a variety of investors which had previously avoided the typical single or double A ratings accorded to the building societies to finance the burgeoning UK mortgage market. As volumes began to outstrip the appetite of traditional investors and in response to rapidly changing mortgage products, merchant and investment bankers quickly adapted the struc-

# UNITED KINGDÓM

Figure 2: Trend in Issuance of UK Mortgage - Backed Securities



tures and profiles of mortgage-backed securities to meet issuer and investor requirements. The changing shape of UK mortgage-backed securities and the more important innovations in the UK market are discussed in more detail below.

With hindsight, yields to investors on mortgage-backed securities were reasonably stable over the first few years. The first few issues were pitched successfully at about 0.25% to 0.30% over LIBOR (London Interbank Offered Rate) and margins varied mostly in a range between 0.20% and 0.40% over LIBOR. The first investors were, quite naturally, the banking community which quickly recognised the attractive yields and high credit quality of mortgage-backed securities. Inevitably, new issuance grew faster than the investor base which resulted in an upward pressure on required yields. However, by the latter half of 1988, corporate treasurers, insurance companies and money funds had begun to invest in mortgage-backed securities. The high level of corporate liquidity in the UK in the late 1980's allowed the margins on some mortgage-backed securities to be squeezed right down to just 0.18% over LIBOR. At this point, there was only a few basis points differential in yield between building society and mortgage-backed floating rate notes.1

A more typical differential has been 0.10% to 0.20%, increasing with the higher absolute level of margins. Figure 4 shows how the margins offered to investors at the time of launch of new mortgage-backed issues has varied over time.

One of the most promising features of the development of UK mortgage securitisation in 1988 and 1989 was the arrival of issuers other than the specialised mortgage com-

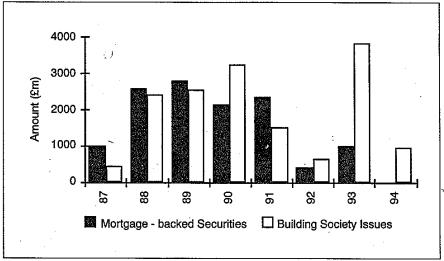
panies. Intrigued by the technique and wishing to manage their exposure to the fast growing mortgage market, first issues were made by Bank of Ireland, Trustee Savings Bank, Canadian Imperial Bank of Commerce, Barclays Bank and, from the insurance sector, Legal & General and Allied Dunbar. 1990 saw the market's largest issue by Citibank with an initial £475 million offering under its £2 billion STARS Programme. At this point, however, the steady flow of new issuers dried up, reflecting underlying difficulties in both the mortgage and the securitisation markets.

Before examining what went wrong after such a promising start, it is useful to consider in more detail some of the technical features of UK mortgage securitisation. With the benefit of experience and ideas imported from the United States markets, the UK markets quickly evolved to a fairly sophisticated level and embarked upon innovations of their own.

### THE STRUCTURE OF SECURITISATIONS

For the investment bankers and lawyers involved, the first securitisations brought a number of new problems. Investors would

Figure 3: UK Sterling Mortgage - Backed Securities and Building Society Sterling Issues



### UNITED KINGDOM

Discounted Margin to Investor (bp) 100 80 60 40 20 0 7-Apr-88 31-Mar-89 16-Mar-90 3-Mar-87 30-Oct-87 14-Sep-90 5-Apr-92 27-Sep-93 29-Jan-91 -May-91 6-Sep-91 Launch Date

Figure 4: Public Sector Sterling Mortgage - Backed Securities Issue Margins

buy floating rate mortgage-backed debt but they needed some form of credit enhancement to protect against losses. Finding the credit enhancement was quite simple: it could come from banks (like Bank of America in Mini 1) and insurance companies (through pool policies). The difficulty was in deciding how much to have. In the US, the rating agencies had been doing this for years, but they were new to the UK. By 1987, however, they were ready to rate UK mortgage securitisations and Standard & Poor's were there first with an "AAA" rating for NHL1. By December 1987, Moody's had also rated their first deal.

Though investors credit needs could be met, there were potential problems with their maturity requirements. The problem here was that the mortgages required financing for 20 to 30 year periods but investors needed a far shorter maturity on the debt that they purchased. The solution was to allow the debt to be callable by the issuer and provide for a margin increase on the call date to make its exercise more likely. Household Mortgage Corporation's issue in July, 1987 first used the technique in this form.

With investor demand for mortgage-backed FRNs developing rapidly, the next step was to split the notes into a "fast pay" tranche to which principal repayments were applied first and a "slow pay" one. National Home Loans' CMS 1 issue in 1989 used this approach. Fixed rate investors could also be reached. Household Mortgage Corporation's HMC 101 issue in November, 1988 used an interest rate swap to create a fixed interest bullet maturity security from floating rate mortgages. In 1991, HMC took the technique a stage further by combining a "fast pay" FRN issue (HMC Mortgage Notes 7) with a fixed rate bond, secured on the "slow pay" tranche of the FRN (HMC Mortgage Notes 103). The two tranches were distributed to different investor bases, successfully reducing the overall cost of the issue.

If these financings showed fresh thinking about the maturity and interest rate needs of investors, attitudes to credit enhancement were also changing. By 1991, the issuers whose pool policies had protected investors were facing huge losses on their mortgage exposures. With insurers unable or unwilling to provide credit enhancement, issues began to rely upon tranches of sub-

ordinated notes, rated and unrated, placed with yield seeking investors. Whilst the Japanese financing community was heavily relied upon for the placement of these subordinated notes at first, there now exists a much wider investor base encompassing both North American and European institutions.

Investors have now come to prefer senior notes enhanced by a subordinated tranche rather than the pool insured equivalent due to the many down-gradings of senior notes reliant on the credit rating of their insurance company credit enhancer. Although investors have suffered no losses on UK mortgage-backed securities (however credit enhanced), the market currently demands a premium of several basis points per annum in yield for pool insured senior notes. The choice of credit enhancement is, however, in practice between subordinated notes and a financial guarantee provided by a monoline insurance company (i.e., insurance companies such as Financial Security Assurance or FGIC which exist for the single purpose of providing financial guarantees). The providers of pool insurance in the UK mortgage market have effectively withdrawn from writing new business.

## UNITED KINGDOM

A final innovation worthy of mention in the UK mortgage securitisation markets is the concept of "arrears bonds". On four occasions, portfolios of mortgages in arrears (typically at least six months down) have been securitised by way of issuing highly rated mortgage-backed securities dependent on high levels of credit enhancement. This development is in itself a testament to the sophistication of the securitisation market that now exists in the UK and the flexibility of the investor base for such securities.

#### CONSOLIDATION AND DECLINE

After an initial period of rapid growth and a pace of technical development which compared favourably with any securitisation market around the world, the UK mortgage securitisation markets moved, almost equally rapidly, into a period of consolidation and decline in issuance in the 1990s. Citibank's STARS 1 issue at the end of 1990 at a margin of 0.40% over LIBOR was the last issue before yields to investors moved up dramatically. 1991 saw a level of issuance similar to the previous year, but this was all driven by mortgage business written in an earlier period and, significantly, no new sponsors of issues emerged. What had happened to cause such a sudden change in the fortunes of the mortgage securitisation markets?

In fact, a number of factors combined in a way which highlighted the weaknesses which often arise in rapidly developing markets. Securitisation is a volume driven business and the single most important factor in the decline of the market was the rapid tailing off of new business volumes. From a peak of over £40 billion in 1988, net new mortgage business fell to £27 billion in 1991 and just £18 billion in 1992. Worse still, the market share of centralised lenders - the mainstay of the securitisation markets - fell from 13% in 1988 to 8% in 1991 and in 1992 the centralised lenders suffered a net outflow of £1.4 billion of business redemptions actually exceeded new lend-

One might have expected the lean and flexible centralised lenders to prosper in a more highly competitive mortgage market. In practice, no amount of clever product development or paring of costs could counter the basic change which had occurred in the UK in the relationship between mortgage rates and wholesale money rates represented by LIBOR. Flush with cheap retail funds following the Stock Market debacle of the late 1980's, building societies held down mortgage rates as the absolute level of wholesale money rates increased from 7% to over 15%. Figure 1 shows that the differential between mortgage rates and LIBOR was negative for a while and did not recover to normal levels (by mid 1980's standards) until well into 1992. In this economic environment, it was impossible for the centralised lenders to compete effectively for new mortgage business,

From 1991, investors in mortgage-backed securities also became nervous at a number of developments. Although no issues were down-graded due to the performance of the underlying mortgage portfolio, many issues did cede their triple A ratings due to the down-grading of the insurance companies providing credit enhancement. Investors attracted by top-notch ratings suddenly began to feel uncomfortable about their portfolios. They could not ignore the fact that house prices, after rising at 15% per annum through the 1980's, had suddenly begun to fall. Credit losses were widely reported in the press and causing major increases in bank and building society provisions - even if the mortgage-backed securities remained intact. The final straw for many bank investors was the announcement in January 1991 by the Bank of England that, due to the proposed implementation of the EC Solvency Ratio Directive from January 1993, mortgage-backed securities would move from a 50% to a 100% risk asset weighting for capital adequacy purposes from that date. Whilst the Bank of England expressed strongly its desire to maintain a 50% risk asset weighting on mortgage-backed securities, bank investors immediately revised upwards their yield expectations.

It was, with hindsight, a blessing in disguise that mortgage-backed issuance tailed off in 1991 and fell to less than £500 million in 1992. Even at these low volumes, yields to investors were forced up to over 0.60% over LIBOR and issues were frequently divided into different risk and maturity tranches to obtain the best possible access to the limited investor base. When the low level of issuance - barely £1 billion - continued in 1993, yields did gradually fall back into the historical range of 0.30% to 0.40% over LIBOR. This process was greatly assisted by the Bank of England's ultimate confirmation at the end of 1992 that mortgage-backed securities would, after all, continue to carry a 50% risk asset weight-

Although this phase of the market's development did seem very gloomy to practitioners, a number of positive points emerged. First, the structures and levels of credit enhancement applied to UK mortgagebacked securities demonstrably survived the greatest crisis ever to befall the UK mortgage markets. During the same period, several building societies ran into difficulties and were forced into mergers with stronger societies. Second, the management of centralised lenders had the opportunity to consolidate their businesses and those that have survived are the stronger for this process. Finally, the stresses placed on financial institutions generally and the mortgage market in particular demonstrated that securitisation does have a role to play as a source of funding, to optimise the use of capital and to control the variety of risks inherent in mortgage lending.

### THE CURRENT SITUATION AND FUTURE PROSPECTS

The UK mortgage securitisation markets are currently in limbo for a number of reasons. Although the UK economy and residential property prices are now seen to be recovering, mortgage lending remains at a

### UNITED KINGDOM

very depressed level. Net new lending in 1993 was about £14 billion and expectations for 1994 are only slightly higher. Competition for new business has certainly not decreased; in fact, the banking sector has increased its market share of net new business to over 50% at the expense of building societies and mortgage companies. Banks have increasingly sought to replace very low levels of corporate lending with increased residential mortgage lending. They have been particularly well-placed to do so in an environment of historically low absolute rates and a rapid shift in borrower preferences from variable to fixed rate mortgages.

On the regulatory side, two matters of importance remain as yet unresolved. First, for some years the UK's Accounting Standards Board ("ASB") has been reviewing the accounting rules governing the off balance sheet treatment of certain financial transactions, including securitisations. Since the accounting treatment of securitisations and the capital adequacy treatment for banks and building societies are now inextricably linked by EC legislation, the resolution of FRED 4 (the proposed accounting standard) is vital to the future development of securitisation. FRED 4 is now expected to be published as a Financial Reporting Standard in April and to provide consistency between accounting and capital adequacy treatment of securitisation. The accounting standard will require disclosure of the gross amount of assets securitised as well as the net amount of assets on which some risk is retained. However, only the residual risks retained by the issuer will be reported as onbalance sheet assets necessitating the provision of capital by banks and building societies.3

Second, as the major providers of residential mortgage loans in the UK (still over 60% of outstanding lending at the end of 1993), building societies do not yet have a complete set of regulatory guidelines on which to base any securitisation. The Building Societies Commission (the regulator of building societies) has been considering this matter for some time and is now expected to

finalise its views and publish a Prudential Note on the capital adequacy treatment of building society securitisations in the middle of 1994. As interest in securitisation grows amongst the building societies, the publication of these guidelines becomes much more important.

A useful by-product of the low level of mortgage-backed issuance over the last two years has been a return to more attractive (for issuers) yields. Mortgage-backed securities are again perceived by investors as à safe and attractive home for their funds and competition for scarce paper in both the primary and secondary markets has driven new issue yields back down to between 0.25% to 0.30% over LIBOR. A recent £500 million issue sponsored by UCB Home Loans Corporation was devoured by the market at these levels suggesting that there is room for both a considerable increase in primary issuance and further decline in yields to investors.

In considering the future prospects for UK mortgage securitisation, it is impossible to ignore one fundamental change in the structure of the industry. The mortgage companies which were responsible for the advent of the market and the great majority of the issues are unlikely to be the mainstay of any future market revival. In many cases, these companies have stopped originating new business and they (or their mortgage portfolios) have been sold to the banks and building societies who have happily accepted this alternative supply of new business. Indeed, it is estimated that as much as £5 billion of mortgages have changed hands in this way over the last few years. much of which may otherwise have been securitised. In some instances, for example Abbey National's recent purchase of CIBC Mortgages plc, the acquisition of a centralised lender may provide a bank or a building society with a quick route to securitisation if it wishes to use this financing technique. Of course, some of the mortgage companies have survived and lenders such as Household Mortgage Corporation can be expected to remain important supporters of the securitisation market.

However, if UK mortgage securitisation is really to prosper, it will be due to the involvement of the major bank and building society lenders. As their exposure to mortgage lending grows, the clearing banks are known to be planning a return to the securitisation markets they tested in 1988 and 1989. Faced by scarce and expensive retail funding and artificial limitations on the amount of wholesale funding they may undertake, a number of major building societies are also implementing the necessary documentation and operational capabilities for securitisation. Any upturn in new mortgage lending volumes is expected to lead to the first building society securitisations.

Even if capital and funding do not remain an issue for the UK mortgage industry, securitisation has already proved its value in providing balance sheet flexibility and imposing operational disciplines which improve the overall quality of an organisation's business. Whilst the jury is still out on the timing of the growth of mortgage securitisation in the UK, the weight of evidence suggests that it will inevitably become a widely used financing technique.

### **NOTES**

- <sup>1</sup> Building society floating rate notes are unsecured but rank ahead of all retail funding of the society. Margins quoted for both MBS and building society FRNs are yields quoted to investors and do not include issuance or credit enhancement costs.
- <sup>2</sup> The great majority of residential mortgages originated in the U.K. during the 1980s and early 1990s were variable rate, interest-only mortgages backed by life assurance or pension policies as a means for the ultimate repayment of the loan. In practice, most borrowers remortgage several times during their lives which substantially reduces the duration of the loans.
- 3 Similar to the treatment being adopted in

**ട**> 34

OVERVIEW ...

➪ 10

CRH in France. Discussions about the privatization of Fannie Mae and Freddie Mac have taken place in the U.S. Reduced government support enhances market discipline and reduces the contingent liability of the government for the activities of the institution.

<sup>10</sup>A moral hazard exists when the activities of the insured directly affect the exposure of the insurer. An insured individual who engages in high risk activities presents amoral hazard to the insurer. In the U.S., the high risk lending by bankrupt savings and loans demonstrated the moral hazard to the government of deposit insurance.

### REFERENCES

Boleat, M., *National Housing Finance Systems: A Comparative Study*, London, Croon-Helm Ltd, 1985.

Cagamas Berhad, 1992 Annual Report, Malaysia 1993.

Diamond, D.B. and M. J. Lea, "The Decline of Special Circuits in Developed Country Housing Finance", *Housing Policy Debate*, 3, 3, 1992b.

Diamond, D.B. and M.J. Lea, "Housing Finance in Developed Countries: An International Comparison of Efficiency". *Journal of Housing Research*, 3, 1, 1992a.

Mayo, S., "Housing Finance Development: Experiences in Malaysia and Thailand and Implications for Indonesia", paper prepared for the Office of the State Minister of Housing, Indonesia, January 1990.

Renaud, B., "Confronting a Distorted Housing Market: Can Korean Policies Break with the Past?", paper presented at the Korea-US Symposium on Korean Social Issues, Graduate School of International Relations and Pacific Studies, University of California at San Diego, June 1992.

Struyk, R. and M. Ravicz, Housing Finance in LDCs: India's National Housing Bank as a Model? Urban Institute Report 92-2, Washington D.C., 1992.

Whitehead, C. and J. Yates, "Deregulation and the Private Financing of Housing in Australia and the U.K.", paper presented at the Housing Finance Workshop, Conference on European Cities: Growth and Decline, The Hague, The Netherlands, April 1992.

UNITED KINGDOM ...

⇒ 27

France and described in the article by Stone and Zissu in this issue, any bank which securitises assets and then repurchases the credit risk via holding the subordinated tranche of any security must provide an appropriate amount of capital against the entire pool of assets.

UNITED STATES . . .

< 33 <

change in credit availability to underserved groups will happen more slowly. The institutions that recognize this business as an opportunity will contribute to their profits as well as the goal of credit extension.

The future role of the federal government in the mortgage market is likely to be one of setting the policy (i.e., setting minimum requirements of what is provided and who is served) and sharing the risk in some difficult to serve sub-markets. The government is less likely to take the responsibility for directly providing services or financing. Private institutions following the policy direction will contribute the ingenuity to provide a vast array of services and finance at low cost to these groups.

Participants in the mortgage market range from government agencies to private unregulated corporations, but these institutions are different in degree, not kind. They will all be influenced by the new arrangement between the government and the mortgage market.

#### **NOTES**

<sup>1</sup>This section draws from Carr and Megbolugbe.

#### REFERENCES

Carr, James H. and Isaac F. Megbolugbe, 1993: "The Federal Reserve Bank of Boston Study on Mortgage Lending Revisited", Fannie Mae Office of Housing Research Working Paper.

Galster, George, 1993: "Future Directions in Mortgage Discrimination Research and Enforcement," presented at the Home Mortgage Lending and Discrimination Conference.

Hendershott, Patric H., and James D. Shilling,1989: The Impact of the Agencies on Conventional Fixed-Rate Mortgage Yields, *Journal of Real Estate Finance and Economics*, 2, 101-15.

Munnell, A. H., L.E. Browne, J. McEneaney, and G. Tootell, 1992: *Mortgage Lending in Boston: Interpreting the HMDA Data*, Working Paper, Federal Reserve Bank of Boston.

Quercia, Roberto G. and Michael A. Stegman, 1992: "Residential Mortgage Default: A Review of the Literature," *Journal of Housing Research*, v. 3, pp. 341-379.

Sirmans, C.F. and Benjamin, John D., 1990: Pricing Fixed Rate Mortgages: Some Empirical Evidence, *Journal of Financial Services Research*, 4, 191-203.

Stiglitz, Joseph E. and Andrew Weiss, 1981: "Credit Rationing in Markets with Imperfect Information." *American Economic Review*, v. 71, pp. 393-410.