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Retail Finance: Bringing in the Supply Side

Roman Inderst

Center for Financial Studies
an der Universität Frankfurt ■ Mertonstraße 17-21 ■ D-60325 Frankfurt am Main
Telefon: +49 (0)69 798-30050
Fax: +49 (0)69 798-30077 ■ http://www.ifk-cfs.de ■ E-Mail: info@ifk-cfs.de

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Prof. Volker Wieland, Ph.D.

Center for Financial Studies
House of Finance ■ Goethe-Universität
Grüneburgplatz 1 ■ 60323 Frankfurt am Main ■ Deutschland

Telefon: +49 (0)69 798-30050
Fax: +49 (0)69 798-30077
http://www.ifk-cfs.de ■ E-Mail: info@ifk-cfs.de

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Retail Finance: Bringing in the Supply Side

Roman Inderst[1]

This CFS Working Paper has been presented at the

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Prague, 21st October 2008

1 Goethe- University Frankfurt, Güneburgplatz 1 House of Finance, 60323 Frankfurt, e-mail inderst@finance.uni-frankfurt.de

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Roman Inderst, University of Frankfurt (IMFS)

1. Introduction

Let me start by thanking the organizers for giving me the opportunity to talk here today. When we originally decided on the topic, this was some time before the current melt-down started. Still, at least from the beginning of 2007, the troubles in the US subprime market were already visible. And it was evident that this would cause collateral damage around the world. This focused international attention on the area of retail finance – an area that typically receives much less attention than the fancier world of wholesale finance.

Recent events, however, have shifted attention back towards the wholesale end, such as the markets for asset-backed securities and credit default swaps. This conference is thus particularly timely in turning our attention once again to where the problem started, the retail side.

Initially, the plan of this talk was to give a first view on the research that is currently undertaken at the Institute of Monetary and Financial Stability in Frankfurt. At this institute, we now operate a "competence center" on retail finance, co-financed by an Advanced ERC grant from the European Union. Our core topic is the regulation of retail finance, in particular from an European perspective. Some results from this ongoing research will show up during my talk, but I have decided to somewhat shift the focus towards more pressing issues.

Despite this shift in focus, I am confident that there will be little overlap with other keynote speakers or panelists. This is so for two reasons. First, much of my talk will stay in the world of academics, relating to models and academic literature. Second, I suspect that my perspective on policy is different.

I certainly agree that currently there is an urgent need to act decisively. But from a retail perspective, which for me means putting consumer welfare at center stage, some of the measures that are implemented to shore up financial stability may have dire consequences.

The virtues of competition seem to be forgotten by those who see the future in having few, large universal banks, probably with captive retail clients, to whom they sell their own investment and credit products. They are also willing to wave through mergers that will significantly reduce retail competition in the future.

The virtues of competition are to bring down prices and to spur innovation. Some argue that credit to households was too readily available and too cheap. Others argue that there was too much innovation. Having worked on competition cases in a range of industries, to me these are certainly novel and "original" views. I will argue that once a system to adequately protect retail customers is in place, there is little or even no merit in these views.

In the first part of my talk, I will speak more generally about the "supply side" in retail finance. This has, to my view, been largely neglected by academics. We thus have very little knowledge of how product and process innovations have changed the way households borrow, save and invest. We also lack models and data to make a compelling case for how to optimally regulate the industry, thereby protecting customers and allowing competition to work. In the second part of my talk, I will turn in detail to the topics of innovation and regulation, and their interaction. In the final part, I will return to recent events and the long-term policy issues that they raise.

2. The Neglected Supply Side

Households' financial decisions have increasingly attracted the attention of academics. Key drivers of this increased interest are profound changes to households' personal balance sheets: they became longer, as homes substantially increased in value; on the asset side, expected payouts from pay-as-you-go pension schemes were replaced by contributions to pillar II or pillar III pension schemes; and on the liability side, we witnessed, at least in some countries, a massive increase in secured and unsecured debt.

There is no space here to discuss the various approaches taken to explain the increase in household debt. At least for someone coming more from the micro side, the lack of supply-side arguments is surprising. In fact, the supply side is mostly reduced to perfect competition – or, likewise, a dynamic programming equation, maximizing a representative household's discounted utility. This is despite the fact that the respective markets underwent profound changes, such as the use of ever more sophisticated scoring models or increased competition from distant lenders.

This is all hard to integrate in a framework that already assumes perfect competition. The same applies to the role of financial innovations.

Next, the area of household finance has made advances in documenting and explaining household portfolio choice, as well as integrating it into models of asset pricing. Research on this frontier is driven by puzzles, such as low stock market participation, underdiversification or, on the credit side, the sluggish refinancing behavior of mortgage holders.[1] This also brings in the growing literature on behavioral finance, which documents further "biases", at least among some investors, such as overconfidence.[2]

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[1] E.g., Campbell (2006).

[2] E.g., Odean (1999).

Again, in my view the role of the supply side has been largely neglected. Households may often choose only among those products that they are offered by their main bank or financial advisor. The choice set, in turn, has become wider due to a scaling back of regulation, more competition and financial innovation—all themes to which I return later.

The supply side may also shed more light on cross-country differences in borrowing, saving and investment. This is obvious given different regulatory regimes or different degrees of financial literacy. Differences in the organization of the industry should also play a major role. At one extreme, a large bank may distribute only its own products to unsophisticated and captive clients. At the other extreme, untied financial advisors may tap into a variety of products, offered by a wide range of providers. This also requires to factor in the role of financial planners and other experts that assist retail clients—such as the role of self-interested mortgage brokers, working on up-front commissions.

In a nutshell, in my view cross-country differences, as well as shifts over time, may find so far unexplored first-order explanations on the supply side.

3. Too much Innovation?

Such a re-focusing on the supply side leads directly to the issue of innovation. Did financial innovation get us into the current mess? Clearly, not every innovation is a good thing for society. A large literature in Industrial Organization speaks to the question of whether we should expect too much or too little innovation. I find it worthwhile to remind us of one simple point. Under imperfect competition, an innovator will typically not pass-on to customers all advantages that arise from an innovation. In this case, there is thus a powerful first-order argument for why there will be too *little* innovation. Why should the case of financial services be different?

Even without talking about "weapons of mass destruction" in the disguise of new financial products, one could agree with Miller (1986): "The major impulses to successful innovations over the past 20 years have come, I am saddened to have to say, from regulation and taxes". Still, financial innovations arguably complete the market, address agency concerns and information asymmetries, minimize transaction costs, or respond to new risk factors or new technological developments.[3] There are abundant examples in retail finance, including the distribution of exchange-traded funds, the introduction of internet banking, or process innovations such as credit scoring.[4]

Often, shifts are more gradual, as in the case of mortgages. A key part of the innovative process is that firms experiment with the marketing of well-known products.[5] But this

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[3] See Tufano (2002) or Merton (1992) for a more detailed discussion.

[4] E.g., Frame and White (2002).

[5] A consequence is that shifts across countries are not homogeneous. For instance, fixed-rate contracts have picked up in some European countries, as in the UK, while variable-rate contracts have become more common in others, as in Denmark. See Miles and Pillonca (2007).

shall not suggest that every newly introduced contract was to the benefits of customers—a theme to which I return later.[6] For instance, "endowment" or "savings and equity" mortgages may offer tax advantages to some households. But other households may have simply underestimated the risk of the bundled-in equity-investment plan.

On the other hand, however, there may still be plenty of scope for beneficial innovations. For instance, a roll-out of fairly-priced reverse mortgages could potentially benefit many aging households.[7] Also, the further development of credit scoring will continue to reduce transaction costs and to facilitate entry into local markets, bringing down interest rates and broadening access to loans.[8] For the US, various studies indeed find that the market for borrowing has become more perfect, as measured by reduced volatility of consumer spending or a closer alignment of consumption and long-term income prospects.[9]

But who are the main innovators? While this is a key theme in Industrial Organization, the literature on retail finance is thin. Earlier studies suggest that size is important, in particular for the introduction and roll-out of new services.[10] More recent studies suggest, however, that smaller firms are more innovative.[11] According to a recent study that exploits articles from the business press, the by far most innovative firm in the US was Merrill Lynch.

This brings to mind the following well-known story. (In-)famously, in 1977, it was also Merrill Lynch that invented the Cash Management Account, in effect allowing non-banks to circumvent the equally infamous Regulation-Q. As most will know, this regulation capped deposit rates and forebade banks from paying interest on checking deposits. The market's innovations forced regulators to phase-out Regulation Q and to override state usury ceilings.[12]

The benefits that this innovation brought to ordinary savers should be obvious. On the other hand, it has been argued that this contributed towards the ultimate demise of the Savings and Loan industry. I will return later to this, often only perceived, trade-off between competition and innovation on the one hand and financial stability on the other hand.

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[6] E.g., Scanion and Whitehead (2004).

[7] Furthermore, in the absence of inflation indexing, once inflation picks up, many mortgages may have an excessively skewed repayment profile, in terms of "front end loading".E.g., Campbell and Cocco (2003).

[8] DeYoung et al. (2008), for instance, document this for small business lending, where the form of borrowing is similar to that of unsecured household loans.

[9] E.g., Gerardi et al. (2007) or Dynan et al. (2006).

[10] E.g., Frame and Wright (2002) and Tufano (2002).

[11] See Lerner (2007).

[12] E.g., Gilbert (1986) and Cocheo (2003).

Overall, in my view the first presumption on retail financial innovation is that it increases consumer welfare and that it is a manifestation of working competition. In the words of the EU Commissioner Charlie McCreevy, who spoke on financial innovation in 2005: "I welcome this innovation." The Commissioner, however, also made clear that, at the retail side, innovation must be supported by an adequate regulatory framework to protect borrowers, savers and investors. This is the topic of the next part.

4. Regulating Retail Finance

The need to prosecute misrepresentation of information is obvious. With retail financial products, however, a far heavier burden must be placed on the seller. The principle of "caveat emptor" is wholly insufficient, at least when a client is either advised or can reasonably expect to obtain advice. In these cases, sellers and advisors must share responsibility for the suitability of a product.[13]

There is a long list of cases of alleged or proven "misselling" in various European countries, ranging from new technology stocks in Germany to pension products in the UK. Sharing similar problems is, however, not a sufficient prerequisite for harmonizing regulatory approaches across Europe—a theme to which I later return in detail. The current crisis may unearth further incidences of misselling. For instance, the retail buyers of structured investment products in Germany or Switzerland, where these markets are large, may not have been aware of two major problems with these products. First, counterparty risk: Papers issued by Lehman Brothers did not only involve a bet on, say, various stock market indices, but also a bet on the likelihood of Lehman's default. Second, trading is illiquid and was indeed often halted over the last months.

From a financial stability perspective, this may all be peanuts, compared to the problems on the wholesale markets. It should, however, not be forgotten that such incidences seriously undermine the public's trust in the financial system.

At this point, I would like to spend some time walking you through the basics of a model on misselling and financial advice. The key departure of this model from the earlier literature on credence goods and advice is that it introduces an internal agency problem. That is, the firm has to ensure also internal compliance. This not only adds realism. It also generates a number of additional policy recommendations.

For model presentation: SeePowerpoint slide.[14]

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[13] In such a market for "credence goods", this is also in the self-interest of business, as documented by the respective requirements of self-regulatory bodies. For instance, the National Association of Security Dealers (NASD) requires that prior to making a recommendation to a non-institutional customer, a member must make reasonable efforts to obtain information about the customer's background. (In 2007 NASD was merged with the enforcement arm of the NYSE to form FINRA.)

[14] For details see Inderst and Ottaviani (2008).

A corollary of these observations is that a drive towards harmonizing European regulation in the area of retail finance may have serious drawbacks. Both the demand side, such as financial literacy, and the supply side, such as the organization of distribution systems, still differ widely. With a standardized approach, the fine-tuning of regulation that I have just described would thus not work.

Admittedly, the harmonization of consumer protection and regulation may stimulate cross-border competition. This seems to be the guiding principle behind the introduction of a single European passport for securities and investment companies. However, taking the perspective of retail customers, the creation of a single European market can not be an end in itself.

The Commission's drive to harmonize mortgage regulation has now lost steam, as mortgages have been excluded from the new consumer credit directive. Earlier proposals planned the introduction of a statutory right of prepayment, despite considerable contractual differences among European countries.

Evidently, contractual restrictions on the prepayment of mortgages can serve to optimally allocate interest rate risk between the borrower and the lender. The large literature on "endogenous switching costs" has shown that such forms of contractual lock-in are not necessarily a sign of weak competition. Nor do they necessarily dampen competition. Furthermore, in terms of consumer protection alone, the assessment is at best ambivalent. Simple models from behavioral economics suggest that prepayment clauses can lead to a cross-subsidization of more sophisticated customers at the costs of those who are more naïve.

In sum, I currently do not see a thorough economic underpinning of the Commission's various policy proposals in retail finance. I would hope that when it comes to consumer protection and, in particular, retail finance, the example of European competition policy could be followed. There, the Commission leads much of the rest of Europe in the application of solid economic modeling and empirical analysis.

5. Where Are We Heading Now?

For the final part of my talk, let me return to current events, albeit drawing on the previous remarks. I will not discuss the pros and cons of various short-term firefighting measures of central banks, regulators and policy makers. I worry, instead, about those measures that will stick. Many academics worry that current precedents will have serious implications for future moral hazard. I will also not address this issue. Instead, I worry that future competition will be seriously undermined.

Universal banks are clearly on the ascendant. Bear Stearns and Merrill Lynch found shelter with two large universal banks. What remains of Lehman is being picked up by Barclays. Other universal banks, such as Citigroup, have switched from modesty after massive destruction of shareholder value to boldness, picking up what seem to be undervalued assets. Big is beautiful, particularly if you are too big to fail. The argument of being "too big too fail" will ring much truer next time when a crisis hits. I do not have to spell out the implications that this has for moral hazard and thus stability.

While investment banking will automatically be under closer regulatory scrutiny, once it is in the fold of a commercial bank, will it become less risky? Are we sure that Basle II will exclude all possible loopholes that were so excessively used under Basle I, allowing banks to hide and dislocate risk? May not stable earnings from the retail side and the access to a broad deposit base induce more risk taking? As a piece of evidence, commercial banks that expand into investment banking seem to adopt pay-performance compensation systems similar to investment banks. In particular, the pay-performance sensitivity of their CEO increases.[15]

Risky investment banking in the shadow of or, more precisely, at the back of a bank's broad retail business: Why should this make those concerned about consumer welfare and financial stability happy? What is more, turning back to the issue of innovation, how innovative are large, incumbent universal banks in contrast to leaner, more focused investment banks? My previous observations suggest that we should be rather pessimistic than optimistic.

After two decades of preaching core competencies, has the pendulum swung back towards seeing beauty in oversized and diversified conglomerates? Criticism on the role of external capital markets suggest that this change of mood is not confined to banking alone. Conglomerates and family firms, which often operate a diversified pool of operations, again find favor among practitioners and academics. Another fad that bank regulation could risk following?

A more immediate threat to competition comes from state intervention and state aid, as well as growing consolidation. I will only speak to the latter point. Take the case of the tie-up between HBOS and Lloyds'. HBOS is the UK's biggest mortgage lender, writing one in five of all new home loans, while Lloyds' is the third biggest lender overall. The two groups would end up having a combined mortgage book of, at first count, three times the size of the next biggest rival, Nationwide. HBOS is also the biggest savings provider, while Lloyds' is the third largest.

The tie-up must also be seen against the following background. Recent independent inquiries into the UK's banking market as well as decisions by the UK's Competition Commission all shared one view: Further consolidation should not be permitted, even under wide-ranging remedies.[16] To my knowledge, for the merger of HBOS and Lloyds' no remedies, such as the disposal of branches, has been agreed, and no future consideration of such remedies is planned.

It also remains to be seen how far the hands of DG Comp will be tied in the case of Fortis. Will the Dutch government comply with the remedies that the Commission imposed when it agreed on the way ABN Amro was sliced up by RBC, Santander and Fortis only one and a half year ago?

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[15] E.g., Fields and Fraser (1999).

[16] The Cruickshank report in 2000 urged the government to put a stop on the further consolidation of the industry. The Competition Commission stopped, for instance, the proposed merger of Lloyds and Abbey National.

It is, however, not only market consolidation per se that I worry about, having retail customers in mind. Instead, when regulators as well as customers misguidedly see too much virtue in firms that are large, supposedly stable and familiar to them, then this has far-reaching implications for the whole financial architecture. Third-party providers may have little chance to survive, let alone to grow, when banks' captive customers fail to shop or, likewise, when branch managers need not compete with attractive offers.

In short, I fear that once the dust settles, the current crisis will leave us with a financial system that delivers less for retail clients, in terms of prices, services and innovations.

6. Rethinking and Reforming Policy Responses to Retail Finance

I doubt whether the aforementioned developments and measures that threaten competition are indeed unavoidable and necessary to stabilize the financial system. My fear is that policy is too short-sighted. My fear is also that retail customers' long-term interests are simply ignored. But once the firefighting is done, the present crisis would provide an opportunity to rethink the scale and shape of the retail finance market.

This market has and will be deeply influenced by public policy. The case of the US subprime mortgage market is an obvious example. Another example is that of tax-advantaged savings and pension products. In both cases we have to ask whether households can handle the decisions that governments and the market increasingly impose on them, say through privatizing the pension system.

In terms of retirement savings, there could be benefits in favoring simple, reliable products with very low administrative costs. Customers should still be able to opt-out from those. But sellers would have to document any advice in this direction, say through a filed letter of suitability. This is just one example of a policy that would reduce the need for further regulation and supervision.

Preaching the virtues of competition, as I am doing today, does not exclude a rethinking of the role of government—say, the role as an intermediary that the government could successfully play in the case of a pay-as-you-go pension system. Also, where households can or must make financial decisions, a set of rules and principles is necessary to protect, in particular, the most unsophisticated households. There is no time left to talk in detail about these rules, let alone about a complementary program to gear up households' financial literacy. Given adequate rules and supervision, it is, however, competition that provides the best protection for informed consumers. Banking is here no exception.

Admittedly, a long tradition in the theory of banking argues that more competition leads to more risk taking and thus higher default risk. More recent work qualifies this view, both theoretically and empirically.[17] Moreover, in cases where such a negative trade-off between competition and stability exists, policy and supervision are first

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[17] On the theoretical side, see Inderst et al. (2008). On the empirical side, see Boyd et al. (2006).

blame: either because regulation and government intervention created exploitable situations in the first place; or because supervision did not react flexibly enough.

Still, at least a perceived trade-off may sometimes remain. Though this may at first seem odd, I feel that it is exactly in times like these that we need reminding of the virtues of competition to deliver value to households. To take the supply-side view to retail finance is thus not only an academic program. Applied to policy, to me it means to put consumer welfare first and thus to preserve a competitive financial architecture.

Thank you for your attention!

LITERATURE

Boyd, J. H., De Nicolo, G., and Jalal, A. M., 2006, Bank Risk-Taking and Competition Revisited: New Theory and New Evidence, IMF Working Paper No. 06/297.

Campbelll, J., 2006, Household Finance, Journal of Finance 61, 1553-1604.

Campbell, J. and Cocco, J., 2003, Household Risk Management and Optimal Mortgage Choice, Quarterly Journal of Economics 118, 1449-1494.

Cecchetti, S., Flores-Lagunes, A., and Krause, S., 2006, Assessing the Sources of Change in the Volatility of Real Growth, NBER 11946.

Cocheo, S., 2003, 25Years Later Merrrill's CMA is Still Making Waves, ABA Banking Journal, August.

DeYoung, R., Frame, W.C., Glennon, D., McMillen, D.P., and Nigro, P., 2008, Commercial Lending Distance and Historically Underserved Areas, Journal of Economics and Busienss 60, 149-164.

Dynan, K.E., Elmendorf, D.W., and Sichel, D.E., 2006, Can Financial Innovation Help to Explain the Reduced Volatility of Economic Growth, Journal of Monetary Economics 53, 123-150.

Frame, W.S. and White, L.J., 2002, Empirical Studies of Financial Innovation: Lots of Talk, Little Action? Federal Reserve Bank of Atlanta WP 12.

French, K., 2008, The Costs of Active Investing.

Gilbert, R., 1986, Requiem for Regulation Q: What it Did and Why it Passed Away, Federal Reserve Bank of St. Louis Review 68, 22-37.

Inderst, R., Docula, H., and Otag, U., 2008, Bank Competition and Risk-Taking When Borrowers Care about Financial Prudence.

Inderst, R., and Ottaviani, M., 2008, Misselling Through Agents, forthcoming American Economic Review.

Lerner, J., 2007, The New Financial Thing: The Origins of Financial Innovations.

Merton, R.C., 1992, Financial Innovation and Economic Performance, Journal of Applied Corporate Finance 4, 12-22.

McCreevy, C., 2005, Innovation in Finance – And How Europe Can Be at the Leading Edge.

Miles, D., 2003, The U.K. Mortgage Market: Taking a Longer-Term View, Interim report: Information, Incentives and Pricing, HM Treasury, London.

Miles, D. and Pillonca, V.C., 2007, European Economics: Financial Innovation and European Housing and Mortgage Markets, Morgan Stanley Research.

Miller, M.H., 1986, Financial Innovation: The Last Twenty Years and the Next, Journal of Financial and Quantitative Analysis 21, 459-471.

Odean, T., 1999, Do Investors Trade Too Much? American Economic Review 89, 1279-1298.

Scanion, K. and Whitehead, C., 2004, International Trends in Housing Tenure and Mortgage Finance, Council of Mortgage Lenders Research, November 2004.

Shiller, R.J., 2003, The New Financial Order: Risk in the 21st Century, Princeton Univ. Press.

Tufano, P., 2002, Financial Innovation.

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