

Competition and Financial Regulation *

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1. Introduction

This paper focuses on the interactions between financial regulation and competition in financial markets. Those interactions run deep, and involve consideration of both micro- and macro-prudential regulation, consumer protection, and access/network regulation. Three fundamental issues permeate the analysis. First, competition is associated with failure and exit of suppliers from the industry (as per Schumpeter's well known "process of creative destruction" metaphor) – which has implications for financial stability regulation if exit is disorderly. Second, digital technology is rapidly changing the competitive landscape of financial markets, raising issues about the appropriate design of financial regulation and its perimeter. Third, information deficiencies and behavioural biases of consumers of financial services and products, and consequent responses of financial firms to those, are important determinants of the nature of competition in financial markets.

Competition (or contestability) in financial markets is important for a number of reasons. One is its role in the efficient allocation of financial resources – channelling available funds from savers to those best able to productively use them.¹ A second is its importance in putting downward pressure on the operational costs of performing that role (and other functions) of the financial sector, including introduction of new cost-saving or quality enhancing technological innovations. A third is in providing opportunities for consumer choice between suppliers of financial products and services, whose decisions can impose demand side pressures for improved operational efficiency and product design.

These roles remain important even though recent academic research on financial institutions and markets cast doubt on whether financial markets even come close to behaving like the hypothetical perfect, self-stabilizing, markets underpinning textbook demonstrations of the optimality of free competitive markets.² Financial markets are prone to instability, sustained

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¹ For example, competition will encourage lenders to better identify differences in borrower risk, and set loan interest rates accordingly such that borrowers with higher risk projects will require higher expected returns to make those projects worthwhile. Lenders unable to differentiate between borrowers of different risk will face the problem of adverse selection – setting loan interest rates to reflect average risk, but attracting higher risk borrowers – with obvious consequences for profitability and ultimate survival.

² A recent survey of some of this research is provided by Markus K. Brunnermeier, Thomas M. Eisenbach and Yuliy Sannikov "Macroeconomics with Financial Frictions: A Survey" *Advances In Economics And Econometrics, Tenth World Congress Of The Econometric Society, Volume 2*. New York: Cambridge University Press, 2013. See also Franklin Allen, Ana Babus, Elena Carletti (2009), *Financial Crises: Theory and Evidence*, Annual Review

deviation of financial prices from fundamental values, and subject to complex network interrelations which mean that shocks can be amplified and transmitted throughout the system.³ Some of these features reflect the fact that the standard caveats (to optimality of free markets) of imperfect information, externalities (spillovers), market power and public good characteristics, apply with particular force to financial markets where intertemporal contracts and incomplete markets are fundamental features. More generally, however, this research emphasises the problems arising from the difficulties in designing and enforcing financial contracts which involve future commitments in a world of imperfect information and where markets do not exist to enable precise specification of contract outcomes for all possible future contingencies. Leveraged positions, portfolio mismatches and liquidity creation are among the important characteristics of financial institutions and markets which involve, at their heart, risk-taking, and their relevance for potential instability was brought home clearly in the Global Financial Crisis.

2. Competition and Stability

There is a long-standing debate over the compatibility of competition and stability in financial markets.⁴ Unfettered competition can lead to excessive risk taking, disruptive failures, and contagion risks, while "franchise value" from market power reduces managerial risk-taking incentives. Prudential regulation (and supervision) ideally enables competition within "acceptable" risk limits by regulated institutions (such as by imposing minimum capital and liquidity requirements on banks). However, it can create competitive distortions between types of financial activities (such as bank intermediation versus capital markets) and between financial institutions (both regulated and unregulated).

One such distortion arises from "implicit government guarantees", whether real or perceived, of bank safety – most evident in the case of "Too Big To Fail" (TBTF) institutions. Such implicit guarantees give a competitive advantage in deposit and debt markets and reduce the cost of funding for such institutions, which in turn provides a competitive advantage in lending markets. The competitive advantage is not just against other financial institutions undertaking the same type of intermediation. It is also relevant to competition with capital market funding channels (where savers demand a default risk premium to invest directly in bonds issued by companies) because bank borrowing rates then include no (or a reduced) premium for default risk (even though the risk arising from their loans to companies and others may mean that their deposits do involve some default risk).

Currently, following the Global Financial Crisis experience, in which implicit guarantees became explicit and entrenched perceptions of their existence, there are a range of measures being taken internationally to reduce perceptions and the value of implicit guarantees.

of Financial Economics, December 2009.

³ On financial networks, see, for example, Andrew G Haldane "Rethinking the financial network" <http://www.bis.org/review/r090505e.pdf>.

⁴ See for example, Berger, Allen N., Leora F. Klapper, and Rima Turk-Ariss. "Bank competition and financial stability." *Journal of Financial Services Research* 35.2 (2009): 99-118.

Although these are driven primarily by the desire to protect taxpayers from the cost of such guarantees, they are also relevant for reducing resulting competitive imbalances. They include higher capital and liquidity requirements (to reduce risk of bank failure) and introduction of “bail-in” debt requirements to facilitate resolution of troubled institutions without call on taxpayer funds. There are also additional capital requirements for systemically important institutions which, while based on stability grounds, also reduce competitive imbalances from TBTF distortions.

But some of the regulatory arrangements themselves arguably induce competitive distortions. Under the Basel Accord, minimum capital requirements are based on risk-weighted assets where the risk-weights reflect (*inter alia*) credit risk. Large banks are accredited by regulators to use their own internal risk based models for assessing credit risk and incentivised to develop such models by lower capital requirements than for smaller banks (holding similar assets) using the “standardised” approach prescribed by regulators. This can mean that the proportion of equity capital required in the funding of a loan (in addition to the deposit/debt funding component) can be (for example) twice as large for banks using the standardised approach.

Whether this creates a competitive distortion depends on whether a higher capital ratio (lower leverage) affects the weighted average cost of funds for a bank. Most bankers argue that it does – assuming that there is no, or little, resulting change in the individual cost of deposit/debt and equity components, such that the shift in weighting to the higher cost component increases the average cost. An opposite, equally extreme perspective, is that both those individual costs will decline sufficiently due to lower risk such that the average cost is unaffected.⁵ In that view, lower costs reflect lower required returns from equity holders who face lower systematic (beta) risk due to lower leverage, and from depositors/debt-holders who face lower default risk.

Reality, undoubtedly, lies somewhere between these extremes, but one important consideration is that implicit guarantees (or incomplete understanding of risk involved) mean that investors treat deposits/debt as risk-free independent of leverage, such that its cost does not change. In that case, lower leverage (ie higher equity capital ratio) may involve some higher average cost of funding, but that reflects a removal of an implicit taxpayer subsidy rather than a social cost. Applying this to the alternative risk-weighting approaches, the implicit subsidy is larger for the large banks using the internal risk based models, providing a competitive advantage.

3. Competition and Consumer Protection

Competitive pressures rely on consumers being able to effectively compare and choose between financial products and services offered by alternative suppliers in terms of product quality and price. These requirements are also relevant to protection of financial consumers

⁵ This is an application to banking of the Modigliani-Miller Capital Irrelevance theorem. See Modigliani, Franco, and Merton H. Miller. "The cost of capital, corporation finance and the theory of investment." *The American Economic Review* (1958): 261-297.

from possible exploitation by some suppliers based on information asymmetries and exploitation of behavioural biases.

The Australian regulatory approach to financial consumer protection has been based on the premise that reliance on Disclosure, Education, and Advice can generate good consumer outcomes, and indirectly improve competitive conditions. For several reasons, that approach has been inadequate – as illustrated by a large number of significant financial consumer losses over the past decade. Disclosure documents have generally been based on ensuring legal protections for the supplier and thus too complex for consumer understanding. This is compounded by generally poor levels of financial literacy and education. Finally, the advice industry has been shown to be subject to conflicted incentives and provision of poor quality advice. Ongoing regulatory changes involving simpler disclosure and financial advice reforms aim to address these problems.

But there are potentially more fundamental problems involved in consumer decision-making involving financial products and services. One is the "impossibility of effective, informed, choice" in many circumstances. Take the case of superannuation where most individuals are able to choose a fund to belong to, but where there is substantial disengagement, and little switching between funds. One mantra of the funds management industry is "past returns provide no guide to future returns", and research casts doubt on the ability of individual fund managers to consistently outperform the market. How then should an individual choose between (defined-contribution) superannuation funds where future returns cannot be predicted? How can competitive forces from the demand side be generated?

Another difficulty is that many financial products have "credence good" characteristics. Not only do individuals have difficulty in assessing financial products and services *ex ante*, but it may be difficult or impossible to assess the merits of the choice made *ex post*. For example, in many derivative or insurance products, the absence of an adverse outcome does not provide any information on whether the premium paid was appropriate for the risk insured against.

Also relevant is the problem that competition can involve predatory behaviour and a "race to the bottom" in ethical standards. This can occur where information imbalances favour the supplier, and products are designed to exploit consumers to the benefit of the producer. This becomes an issue where financial firm culture promotes "self-interest" at the expense of "fairness", because even where fairness/reciprocity is a feature of individual values, institutional arrangements can drive it out.⁶ Arguably, this has been rife in the financial sector as a range of international examples demonstrate (See Table 1).

⁶ Fehr, Ernst, and Klaus M. Schmidt. "A theory of fairness, competition, and cooperation." *The quarterly journal of economics* 114.3 (1999): 817-868, survey some of the evidence on the importance of fairness considerations to behaviour and show how economic structures can influence the relative roles of fairness and pure self-interest in determining outcomes.

Table 1 Some Major Miss-Selling Cases

When/where	Name
1980s-90s (UK)	Personal Pensions Miss-selling
1980s-90s (UK)	Endowment Mortgages
1990s – 2000s (UK)	Payment Protection Insurance
1990s-2000s (USA)	Subprime Mortgages
1990s-2000s (USA)	Madoff Ponzi Scheme
2000s (HK & Singapore)	Minibonds
2000s (Europe)	Foreign Currency Mortgages

4. Competition and Network Features

An important feature of the financial system is that many activities require cooperation between participants, and those arrangements can raise complications for competition. Organized financial markets, because of the counterparty and other risks associated with transactions and settlement, require agreements between participants on conditions of participation. These can be used to create barriers to entry. More specific is the case of payments systems, where credits and debits to accounts of individuals and business at different banks to settle transactions such as sales of goods require cooperation between banks in developing an agreed infrastructure. Because operation of such systems involve real resource costs, user charges are necessary – but complicated by the fact that each transaction involves two users and potentially different banks. The structure of user charges and arrangements between the banks (and the system provider) can have significant competitive implications.

The complexity of the issues and competitive effects can be seen as follows. Credit and debit cards are issued by banks who compete to attract customers as account holders who use an associated card in transactions. (The reason for wanting customers to use the card in transactions reflects the structure of “interchange” fees between banks. The “card issuing” bank receives a fee from the “merchant acquirer” bank when a payment is made by the customer to that merchant. The merchant acquirer bank funds that interchange fee from a charge to the merchant – who, in turn, may pass the cost onto the customer, via a surcharge added to the price of the product). Competition among card issuing banks can include interest rates offered, account keeping fees, transactions fees as well as offering "rewards points" per transaction which can be redeemed for products from third parties (such as for airline flights). The bank is able to offer reward points by paying the third party some amount commensurate with the likely value of rewards to be redeemed by card holders.

Cards with high reward point value involve a higher cost (of payments to the third party) to the issuer. However, under rules of the payments system, card issuing banks receive higher

interchange fees when such cards are used. In turn, this is reflected in higher fees charged to merchants by their banks when such cards are used. Unless merchants can recover higher costs associated with the customer using that card by a higher surcharge on the product price, there is a redistributive effect between customers depending on payment method used. If there is no surcharging, the merchant will need to charge higher product prices to cover average fees charged by the bank, and customers using a card which has few or no rewards will thus be cross-subsidising other customers who use higher cost cards. The nature of interchange and surcharging fee arrangements can have significant effects on costs involved in the payments system and also on competitive conditions facing merchants – where some may be able to negotiate better merchant service fees with their bank than others.

5. Competition, Technology, and Regulation

Developments in digital technology are already leading to significant changes in financial markets and have potentially massive implications for the future. New distribution methods for financial products and services, payments innovations, and “crowd-funding” techniques are among the examples.

The reason that these developments are so significant is that they involve reducing the “financial frictions” which financial markets and institutions exist to overcome. Those financial frictions take two major forms. One is information imbalances. The second is physical transactions costs. Digital technology markedly expands the ability of participants to distribute and acquire information. And increased ability to communicate electronically reduces transactions cost, particularly the time taken for transaction settlement and consequent risks. As well as leading to disruptive new business models, such changes are arguably empowering individual and business end-users of the financial system – by facilitating direct or brokered interactions rather than the need for use of an intermediary.

There are a number of implications for competition. Depending on market participant actions, new technology could involve either entrenchment of existing participants (if able to acquire control of new innovations) or bypassing by new entrants with novel technologies. While increased information is a feature of the digital revolution, the technology could facilitate increasing financial product complexity and worsen information asymmetries.

One of the particular challenges relates to regulatory approaches and competition implications – in particular, determination of the appropriate regulatory balance between old and new. This is illustrated by Figure 1 which shows how a new innovation in facilitating borrowing and lending could evolve over time into an activity which is hardly distinguishable from traditional banking (taking deposits, making loans, and providing payments services).

Figure 1: Evolutionary Finance: An Illustration

Service Provider develops a web-site
Initially enables individuals to connect and enter and manage a bilateral loan contract, then
Provides anonymity and loan servicing for bilateral loan contract, then
Provides pooling benefits (selects a portfolio of suitable loans for lender based on preferred characteristics), then
Provides some form of guarantee to lenders, then
Provides ability to lenders to sell loans to others (runs a market) in order to enable them to get cash prior to loan maturity, then
Provides lender with direct access to cash by repurchasing loans for resale in "internal market", then
Issues a debit card to lenders to enable transactions at merchants which is financed by sale of loan holdings of equivalent value into the internal market.

It is far from clear at what point in the process outlined in Figure 1, the service provider becomes so similar to a bank, in terms of functions provided, that it warrants equivalent regulation to a bank. More generally how and when should regulators respond to ensure a level playing field between new and old technologies?

Conclusions

Competition in financial markets is important, but the nature and characteristics of financial markets and institutions are sufficiently special that some *caveats* apply to the conventional way of thinking about the optimality of unfettered competition. Underpinning this conclusion is the pervasiveness of imperfect information associated with the intertemporal contracts that are fundamental to finance. That raises a number of regulatory problems associated with financial stability and financial consumer protection which, while policy objectives in their own right, have consequences for competition and efficiency in financial markets.

Complicating matters at the current time are the developments in digital technology which have potentially massive implications for financial market competition. Fashioning a regulatory framework to deal with implications of technological developments – new products, delivery models, business models etc. – in a way which balances competition and other policy objectives is a particular challenge.