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Cross-selling, switching costs and imperfect competition in British banks

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ABSTRACT

This paper attempts to evaluate the competitiveness of British banking in the presence of cross-selling and switching costs during 1993–2008. It presents estimates of a model of banking behaviour that encompasses switching costs as well as cross-selling of loans and off-balance sheet transactions. The evidence from panel estimation of the model indicates that the consumer faced high switching costs in the loan market in the latter part of the sample period, as a result of weaker competitiveness in the loan market. Additionally, the weaker competitiveness in the loan market appears to facilitate the cross-selling behaviour of British banks, which helps explain the rapid growth of non-interest income during the last two decades.

1. Introduction

Profits for the modern bank arise not simply from the sale of loans but from the sale of a bundled product which includes non-credit financial services. Arguably, the strategic pricing of loans would be a result of market power and switching costs, with a view to the cross-selling of other financial products. In addition, switching costs in lending market may be related to the sale of non-loan related financial products. In the UK the Independent Commission on Banking (ICB) Interim Report (2011b) identifies switching costs and barriers to entry as key elements in the weakened state of competitiveness in British banking, with adverse implications for consumer welfare. However, there is a gap in the empirical research that links banking competitiveness, cross-selling and switching costs in the UK.

This paper seeks to fill this gap. We estimate a structural model of strategic bank pricing behaviour that uses switching costs and contemporaneous cross-selling of loans against off-balance sheet business (OBS) to maximise an intertemporal profit objective.[1] We empirically evaluate the competitiveness of British banking in the context of cross-selling and switching costs during 1993–2008. The underlying assumption of this study is that switching costs exist. It does not aim to estimate the size of switching costs but rather to evaluate the change in switching costs over the time period examined. Our findings suggest that as a result of weakened competition in the loan market in the latter part of the sample period, the banking consumer faced marginally higher switching costs and higher lock-in of bank financial services. The greater the market power (weaker competitive state) in the lending market the stronger the capacity of British banks to conduct strategic pricing to 'suck-in' and 'lock-in' loan customers. Our results challenge the conventional view that *the increase in competition* in the lending market leads banks to exercise a "loss-leader strategy" of reducing the interest rate on loans to attract consumers, and cross-sell other financial products to compensate for the loss in interest income on loans.

The remainder of the paper is organised as follows. Section 2 reviews recent developments in British banking, competitiveness and the relevant literature on switching costs and cross-selling. The theoretical framework and derivation of the empirical model are outlined in Section 3. The data and variables used in estimation and testing are discussed in Section 4 and the results are presented in Section 5. Section 6 concludes.

2. British banking (1993–2008), switching costs and cross-selling

The period of deregulation in British banking, in the 1980s, was followed by two decades of demutualisation of Building Societies

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[1] Cross-selling is defined as the sale of a core good or service that induces an opportunity for sale of a follow-on good or service, while switching costs refer to the costs borne by the consumer associated with the change of the supplier of the core product over multiple periods. Hence, while cross-selling may be static, switching costs invariably involve a dynamic process.

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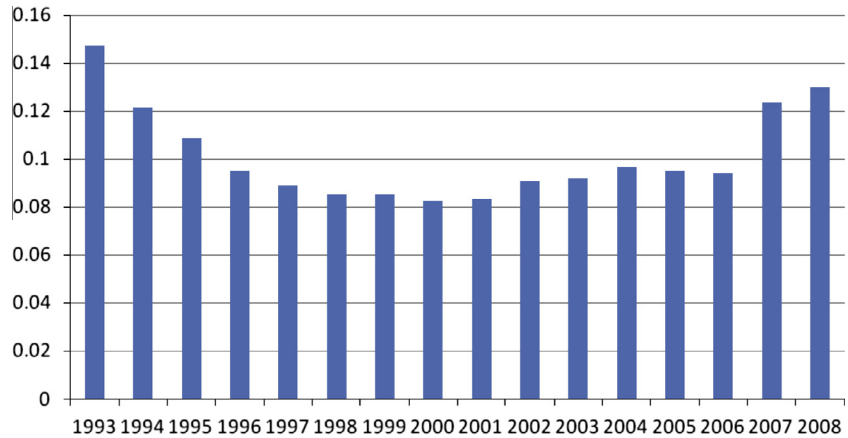

Fig. 1. Herfindahl–Hirschman index for the loan market in UK banking. *Source*: Bankscope and author calculations.

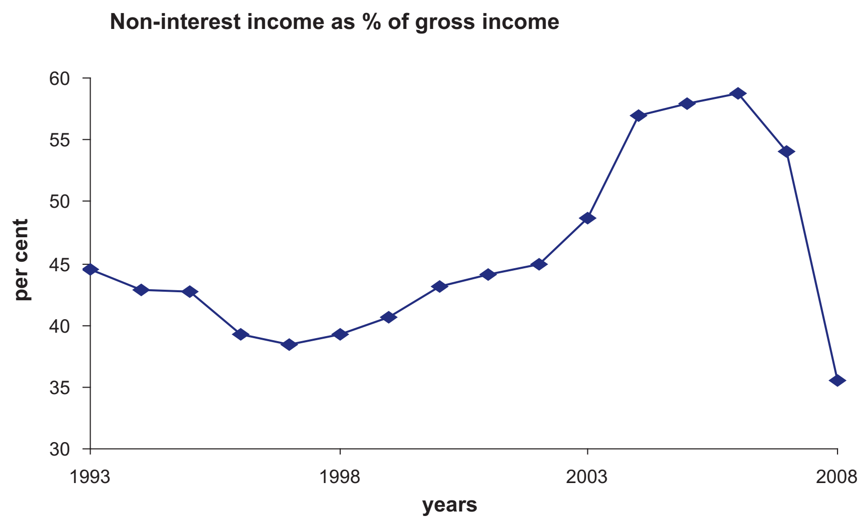

Fig. 2. Non-interest income ratio for UK banking. *Source*: British Bankers Association.

and a spate of bank mergers and acquisitions.[2] There are some specific examples where during the 1990s demutualisation simply gave way to acquisition.[3] The result was a tendency towards concentration, as measured by the Herfindahl–Hirschman Index (HHI) for total loans, in the post-2000 period as shown in Fig. 1.[4]

Also, the latter half of the 2000s witnessed a record number of bank customer complaints to the Financial Ombudsman.[5] The occurrence of these complaints is consistent with the empirical findings by Matthews et al. (2007), which showed worsening of competitiveness in British banking during the 1993–2005 periods.

It may be argued that deregulation of the British banking system has led to the growth of non-interest earning business and off-balance sheet services. Fig. 2 shows the evolution of non-interest earnings as a proportion of total operating income by the British banks since 1993. It is shown that non-interest income reached a peak of nearly 59% of gross income in 2006, fell slightly in 2007 to 54% and then plummeted to 36% in the depth of the banking crisis of 2008. Hence, following deregulation, the growth of non-interest earning business and off-balance sheet services occurred during 1998–2005 and was checked by the outbreak of the global financial crisis.

Banks have developed a strategy of providing a bundled product (Llewellyn, 2005). Arguably, such a strategy offers the banks increased scope for locking-in of their customers facilitated by a loss-leader strategy and cross-selling across products. Imperfect competition in the lending market motivates the bank to lock-in the bank customer's demand for loans by using penetration pricing as well as their demand for other financial services, where the purchase of one bank service may be conditional on the purchase of another, which may deter the customers from searching for the best individual product.

The theoretical literature suggests that switching costs and cross-selling have an impact on the pricing strategy of suppliers and competitiveness in the market place (Farrell and Klemperer, 2006). In addition to the repeat-purchase of identical good over periods in the case of single product producers, an additional

[2] The Lloyds and TSB merger occurred in 1995, Bristol and West was acquired by Bank of Ireland in 1997, Woolwich was acquired by Barclays in 2000, NatWest merged with Royal Bank of Scotland in 2000, and Halifax and Bank of Scotland merged in 2001.

[3] The examples include acquisition of National and Provincial by Abbey National in 1996, Cheltenham and Gloucester by Lloyds in 1995 and Leeds Permanent by Halifax in 1995. Ashton and Pham (2007) list 61 M&A activities between banks and Building Societies during 1988–2006.

[4] The increase in HHI in the post-2000 period relates largely to business lending. The ICB Final Report (2011a), shows that the HHI for personal loans was unchanged between 2003 and 2008.

[5] The Guardian Newspaper 14 September 2010.