Expansion strategies of banks: does size matter?

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Abstract

This paper discusses whether there is some evidence in recent literature that banks do obtain economies of scale and scope when they expand their activities, mainly by mergers and acquisitions (M&As). In this connection, this paper shows that, although there is no clear evidence that such economies have been reached by the banks, the final cost-benefit balance of M&As extracted from literature seems to favour the more universal financial franchise. However, these results are neither unequivocal nor asserted a priori. Indeed, M&As can be desirable for banks if the former are expected to increase profits independently of the effect they may have on the latter's operational efficiency.

Palavras-chave
bancos, economias de escala, economias de escopo, fusões e aquisições.

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Resumo

Este artigo discute se existe na literatura recente alguma evidência de que os bancos obtêm economias de escala e de escopo quando eles expandem suas atividades, principalmente através de fusões e incorporações. Neste sentido, ele mostra que embora não haja clara evidência de que essas economias tenham sido alcançadas pelos bancos, o saldo final de custos e benefícios das fusões e incorporações parece favorecer o banco universal, embora os resultados não sejam inequívocos nem assegurados a priori. *De fato, fusões e incorporações podem ser desejáveis para os bancos se eles esperam aumentar seus lucros, independentemente dos efeitos que elas possam ter sobre sua eficiência operacional.*

1_ Introduction

This paper discusses whether there is some evidence in recent literature that banks do obtain economies of scale and scope when they expand their activities, mainly by mergers and acquisitions (M&As). In this connection, this paper shows that although there is no clear evidence that such economies have been reached by banks, the final cost-benefit balance of M&As extracted from literature seems to favour the more universal financial franchise. However, such results are neither unequivocal nor asserted a priori. Indeed, M&As can be desirable for banks if the former are expected to increase profits independently of the effect they may have on the latter's operational efficiency.

The paper is divided into two sections, besides this introduction. Section 2 examines the hypothesis that size matters for a bank that is allegedly benefited from economies of scale and scope as well as some issues concerning a bank's stability. Section 3 analyses the main motives and rationalisations for different types of banking M&As: domestic bank M&As; international bank M&As; domestic conglomeration; international conglomeration. Finally, Section 4 summarises the main arguments developed in the paper.

2_ Does size matter for a bank?

For the purpose of discussion in this paper, some initial relevant questions concerning the expansion strategies of big multinational banks are: is the universal banking model a global trend? Does size matter for a bank? What is the likely effect of size on bank operating costs, that is, the alleged benefit of economies of scale and scope? What is the best method of expansion – acquisition or entry?

Santomero & Eckles (2000), and Berger *et al.* (2000), in recent papers, discuss most of the questions above. The alleged benefit of economies of scale and scope is related to the increased cost efficiency. The basic idea is that the emergence of broad financial firms enables costs to be lowered, *if* scale or scope economies are relevant and *if* the range of expansion is within the band whereby they can be achieved. If economies of scale and scope prevail, increased size will help create systemic financial efficiency and shareholder

value to the firm. However, if diseconomies prevail, both will be destroyed. In an information – and distribution-intensive industry with high fixed costs such as financial services, there should be an ample potential for scale and scope economies.

Economies of scale exist when the average cost decreases in scale over a relevant range as output expands. If this occurs, then larger institutions may be more efficient. Some lines of business benefit from scale while others may be hampered by it. Examples of potential gains of scale in banking activity include physical branch distribution network, infrastructure software, and electronic distribution systems. The literature concerning economies of scale is inconclusive on the costs and benefits of being big, since the results obtained depend on the period studied or the average size of the financial institution in question.[1] In general the findings suggest few cost scale efficiency gain from consolidation of large institutions that normally are involved in international activity. However, most of the studies use data on financial institutions from the 1980´s.[2] It is possible that the recent technological progress – due to the use of the Internet, phone centres, advances in payment technology, *etc.* – may have increased scale economies in producing financial services, by creating opportunities to improve cost scale efficiency, through consolidation, even for larger institutions.

[1] The European Central Bank (2000) report states interestingly that in the financial industry there are higher expectations of economies of scale than those found in various academic studies. This discrepancy between economic literature and the financial industry may be the result of "the difficulty of achieving reliable estimates of scale economies, particularly in a forward-looking manner able to predict the causes for the present industry restructuring" (p. 22). On the other hand, Humphrey (1992, p. 159) stresses the difficulties of estimating and comparing economies of scales and scope among banking institutions: "The scale and scope estimates (…) have all been performed under the assumption that most banks produce their services with a similar degree of efficiency. This turns out to be incorrect: there is substantial dispersion in banking costs so that all banks are not close to being equally efficient".

[2] According to Dymski (1999, p. 56), 1980s studies "have two basic findings: first, economies of scale in banking are achieved at modest asset volumes as low as $ 100 million; and second, even if economies of scale are to be had in specific financial activities, these confer relatively small cost advantages to larger banks. Very recent studies do not challenge these conclusions".

Indeed, some recent studies of bank cost scale efficiency, using data from the 1990s, suggest that there may be substantial scale economies even at large bank size, possibly due to technological progress (Berger *et al.*, 2000). These studies tend to show that the threshold level is increasing compared with previous studies. In this connection, some other recent studies related to the European experience (Altunbas *et al.*, 1997 and Goddard *et al.*, 2001) show that, in various European countries, banks can obtain cost savings by increasing the scale of production as well as by reducing managerial inefficiencies. Scale diseconomies may arise due to co-ordination and administrative costs from offering a broad range of products.

Economies of scope exist when the average cost falls as more products are produced jointly rather than separately, that is, they occur when expenses may be lowered if a bank can offer several products at a lower cost than it could separately. In other words, providers of multiple products and services produce them at a lower cost than their specialised predecessors. Therefore, there are competitive benefits to be obtained by selling a broader rather than narrower range of products. Economies of scope are explained by the firm's ability to use the same delivery mechanism to provide two or more separate services.

Most empirical studies have failed to find economies of scope in banking, insurance, and securities industries, with very little evidence of significant cost scope or diseconomies within the banking, securities, and insurance industries (Saunders, 1996). Nevertheless, these results can be misleading, as they cover a period in which part of the financial institutions were shifting away from a pure focus on banking or insurance and, for this reason, may have incurred considerable costs in expanding the range of their activities (Walter, 1999). For cross-border consolidation, it is particularly important to evaluate the scope economy of universal-type institutions – *i. e.*, the effects of combinations among commercial banks, securities, and insurance companies, – given that the financial institutions normally engaged in cross-border consolidation are often of this type.

Santomero and Eckles (2000) stress that the real gain of multi-product distribution may not be in production efficiencies but in customer service, in what they denominate "consumption economy". It derives from the cross selling potential of a financial firm that produces various products and services (banking, insurance, and asset management). The result will be a higher revenue and a better return from any customer segment, if consumers of financial services find it more advantageous to purchase multiple products from the same provider.[3] Consequently, banks can increase their profits without any significant enhancements in their operational efficiency.

The literature also refers to the "consumption economy" as *revenue economy* that results from an increase in scale associated with consolidation, because some customers may prefer the services of larger institutions. Focusing on cross-border consolidation, Berger *et al.* (2000, p. 14) state that

> *a related revenue efficiency effect that is particularly relevant for cross-border consolidation concerns the benefits from serving customers that operate in multiple nations, which often require or benefit from the services of financial institutions that operate in the same set of nations. That is, multinational non-financial firms may want to do business with multinational financial institutions. Presumably, the cross-border consolidation of financial institutions in recent years derives at least in part from the cross-border consolidation of non-financial industries (and vice versa as well).*

Empirically, some authors have found significant disparities in cost structures among banks of similar size, suggesting that the way in which banks are run can be more important than their size or the range of business that they pursue.[4] In other words, management efficiency per se may be a

[3] Some authors consider this sort of economy as a type of scope economies from the revenue side.

[4] The literature normally refers to this effect as 'X-efficiency' that is reached when, regardless of the scale of operation, input use is in line with the best practice of the industry, *i. e.* there is no waste of inputs given the level of outputs. So, a bank next to X-efficiency is that which is on average more likely to be closer to the best practice of banks with similar size and product mix. For a comprehensive survey on efficiency of financial institutions, see Berger and Humphrey (1990).

more important factor than scale economies in bank performance.[5] This may suggest that any shareholder value gains in many of the financial services mergers in the 1990s were more highly associated with increases in production and management efficiency than scale and scope economies (Walter, 1999 and Molyneux, 2000).

The relevant question is whether or not any of these economies are both real and substantial. The available empirical evidence suggests limited prospects for firm-wide cost economies of scale and scope among major financial services firms as we have already stressed. Some authors argue that cost economies are likely to be lost as the organisation grows too large and too complex. In this case, the benefit of multi-product distribution may not be enough to outweigh costs.[6] However, if there are doubts about benefits of economies of scale and scope, revenue gains related to multi-product distribution appear to be real. The expanded product array and potential for cross selling suggest that real revenue benefits result from larger size and depth of product offering.

Considering the issue of stability, proponents of the stability argument assert that larger universal banks benefit from higher earnings-source diversification, increased operating earnings stability, and higher valuations. A bank can, in principle, reduce its risk by expanding their activities into product lines whose returns are imperfectly correlated with those for the bank's existing products and services. Benefits from earnings diversification may increase bank value in several ways, since diversification may lower bank risk and reduce the possibility of failure. First, reduced risk directly translates into reduced probability of incurring distress costs. The literature refers to these efficiency gains as improvements in the risk/expected return trade-off. On the other hand, an increased geographical spread of risks associated with cross-border consolidation may improve an institution's risk/expected return trade-off. The literature on commercial banks in the US generally found that larger, more geographically diversified institutions tend to have better risk/expected return trade-offs (Berger *et al.*, 2000, p. 17). Second, a financial firm may be able to increase the level of some risky, yet profitable, activities such as commercial lending,

[5] Berger and Humphrey (1990) found evidences that – using comprehensive 1984 average cost data in the U.S. – bank economies or diseconomies in operation are due more to efficiency of operation than to scale and scope economies *per se*.

[6] In the case of the US, the decline in cost productivity in the 1980s and 1990s was more than offset by increases in revenues, causing improvements in profit productivity. Banks offered wider varieties or higher quality of financial services that raised revenues by more than cost increases and banks that take part of M&A were responsible for such findings (Berger and Mester, 2000).

without additional capital being necessary. This occurs for the largest universal banks, because these activities can have a minority share in the total of their business so that eventual losses in some line of activity could be normally absorbed by the institution.

There are also some arguments that a broader franchise results in a less stable firm. First, a bad outcome in any one line of business may have a magnified effect on all lines of business and on the core franchise itself, in this way increasing the probability of failure. Second, activities are added to this firm because of a perception of the management that the firm has a comparative advantage in producing an underlying product or assessing an underlying risk (Santomero and Eckles, 2000, p. 15). Third, the efficiency of a financial institution may decrease if the consolidation creates organisational diseconomies to operate a larger, more diverse enterprise, or makes it difficult to serve some segments of the market.

The final balance of costs and benefits associated with a broader product array in the literature seems to favour the more universal financial franchise. The possible benefits of scale and/or scope economies, the revenue enhancements, and the added stability all favour the observed movement toward universal banks. However, as we have seen, the results are neither unequivocal nor asserted, since they depend on several factors. On the other hand, there will always be some room for specialised banks exploring some specific niche of the financial market, such as the design and sale of derivatives, international issues of securities, some sort of investment funds, *etc*. This suggests that the institutional feature of the world financial system, resulting from recent changes in the banking industry, will be a mix of specialised banks and universal banks, probably making up a bimodal banking system.

One further argument in favour of big universal banks is that their potential for greater innovation is bigger than that of small banks. According to Schumpeter's approach, the innovator-firm can get transitory monopolist earnings derived from some successful innovation. The introduction of new innovations – both technological and managerial – when successful may permit a firm to increase both its earnings and market share. In this sense, technological change is one

of the main drives of the expansion strategy of firms. Studies of banking efficiency seems to omit this important aspect of the discussion on banking efficiency and performance, as they put too much emphasis on a firm cost structure. Financial innovation can be essential to a financial firm to obtain both increases in its revenue gains and in market share, since it allows a bank to increase the customers' deposits amount in order to finance its assets operations (Minsky, 1986, Ch 10). The commercialisation of the Super Account (*Supercuenta*), a high interest-bearing savings account, by Santander, in Spain in 1989, and the launch of the Remunerated Account (*Conta Remunerada*), a remunerated sight deposit, by Bamerindus, in Brazil in 1987, are good examples of how the introduction of financial innovations can change prevailing market conditions.

The last question to be considered is that regarding the choice of methods to achieve product line expansion, that is, expansion through *acquisition* or *new entry*. The decision will depend on several factors, such as the nature of the new business and start-up costs involved, in terms of initial capital, technology platform, and distribution requirements. To acquire an existing bank has some advantages. First, start-up costs are in general lower, since the target company has already made infrastructure investment. Second, the existing firm may have a valuable asset, such as brand recognition, beyond the acquirer's existing customers. If this occurs a firm provides instant credibility and access to the market. Third, the customers' base can be leveraged at the same time that cross selling of other products and services can occur using the same distribution base for this purpose.

The last factor is probably the most important one – fidelity –, since fidelity of bank customers is generally high and may explain why some big financial institutions have put emphasis on distribution, as recent acquisitions suggests – for example, Natwest, by Royal Bank of Scotland in the United Kingdom, and Banespa, by BSCH in Brazil. However, the literature shows some evidence that, in many cases, acquisitions cannot succeed due to a cultural clash, since to take over an existing firm requires adaptation and a particular set of management challenges. Barclays Banks' purchase of Merck Fink, in Germany, and

Credit Lyonnais' purchase of Banco Jover, in Spain, were not successful ventures. Cultural differences across countries, markets, and management styles have proved problematical, with the overall result that there is no empirical evidence that shareholder value has been enhanced by such strategies.

3_ The rationale for mergers and acquisitions (M&AS)

Overall, M&As can be divided into four types, according to the main motives and rationalisations:

_ domestic bank M&As;
_ international bank M&As;
_ domestic conglomeration;
_ international conglomeration.[7]

Domestic bank M&As embrace an operation between credit institutions located in the same country. Its main motivation is the search of economies of scale. Scale economies are particularly important for small bank M&As, as small institutions aim to achieve a critical mass to exploit synergies arising from size and diversification. On the other hand, large bank M&As often reflect a repositioning of the institutions involved, that is, the pursuit of size increase reflects the perceived need to become big enough for the domestic market, increasing their market power. They can also aim at obtaining scale economies.

International bank M&As involve not only banking institutions, but also those located in different countries. The need to be big enough for the regional or global market can be one of the main motives, but there are other reasons such as the need to follow their clients abroad and also the diversification and the pursuit of new profitable markets, through cost and revenue efficiency.[8]

Financial conglomeration is a process leading to the creation of financial conglomerations operating in different sectors of the financial industry. One of

[7] This typology was drawn from European Central Bank (2000, section 2).

[8] According to Focarelli and Pozzolo (2000, p.1), "the pattern of bank international shareholdings followed that of the economic integration between countries: banks extended their activities abroad in order to provide services to their home-country clients in international transactions; afterwards, with a growing understanding of the foreign market (in particular of regulatory and institutional aspects) and a developed network of relationships with local financial institutions, some banks were induced to increase the range of their operations and provide services to the local population too. Although this account is likely to be accurate in general (…) today the actual pattern of bank international shareholdings depends on a wider range of factors than just the overall degree of economic integration between countries."

the most common processes of conglomeration combines banking and insurance institutions. There are two types of conglomeration: the domestic conglomeration and international conglomeration. The *domestic conglomeration* involves M&As between credit institutions and insurance companies and/or other financial institutions all located in the same country. Its predominant motivation is the search of economies of scope as well as risk and income diversification. The critical issue is to achieve the expected cross selling of various financial products to the larger customer base brought together from the institutions involved. The *international conglomeration* involves M&As between various financial sectors and countries. The search of economies of scope through cross selling, in order to increase revenues together with size, are the principal motives of international conglomeration. Table 1 summarises the main motives and possible rationalisations for the four types of M&As.

Table 1_ Main motives and possible rationalisations for the four types of M&As

	Within one country	In different countries
	Domestic bank M&As	**International bank M&As**
Between credit institutions	Economies of scale linked to costs are the main motive. Cutting distribution networks and administrative functions (rationalisation), including information technology and risk management areas.	Size, *i. e.*, the need to be "big enough" in the market is the main motive. Strategies of 'follow the clients' and exploiting new markets with profit potential. Possible rationalisation within administrative functions.
	Domestic conglomeration	**International conglomeration**
Across different sectors	Economies of scope through cross selling are the motive. Risk and revenue diversification. Optimum usage of complementary distribution networks. Possible rationalisations within administrative functions may lead to economies of scale linked to costs.	Economies of scope through cross selling together with size are the two main motives. Risk and revenue diversification. The M&A offers few rationalisations because institutions are in different countries and subject to different regulations and practices.

Source: Adapted from European Central Bank (2000, p. 20).

Banking M&As are normally explained by the merging bank's desire to enhance safety and soundness – by allowing stronger banks to absorb weak or failing banks or by allowing diversification into new markets and/or to boost their productivity in supplying financial services through banks exploiting economies of scale and scope. However, as we have seen in the former section, there is little evidence that M&As will allow banks to obtain benefits from significant economies of scale or scope. So, what is the rationality of bank M&As?

According to Dymski (1999, p. 65),

> *mergers may thus be desirable for banks if they are expected to enhance the acquiring bank's capacity to increase profits, independent of the effect they may have if any on operational efficiency*.

Since there is some support for the hypothesis that links market power and profits in banking market – according to the finding of Berger (1995) – this result suggests that "banks may use mergers as a way of seeking out market power, so as to enhance their ability to generate net profits" (Dymski, 1999, p. 66). The increase in net profits without any enhancements in banking operational efficiency may be the result of reducing the interest cost of their liabilities, increasing fees for depository services, rising loan rates, reducing the likelihood of extraordinary costs, and increasing the revenues generated by fees. In conclusion, M&As may be desirable from the bank's perspective in that they enhance the bank's capacity to take these profit-increasing steps.

4_ Conclusion

This paper showed that available empirical evidence in the literature suggests limited prospects for firm-wide cost economies of scale and scope among major financial service firms. However, if there are doubts about the benefits of the economies of scale and scope, revenue gains related to multi-product distribution appear to be real. The expanded product array and potential for cross selling suggest that real revenue benefits result from larger size and depth of product offering. This may suggest that any shareholder value gains in many of the financial service mergers of the 1990s were more highly associated with increases in production and

management efficiency than scale and scope economies. Furthermore, M&As may also be desirable from the bank's perspective in that they enhance bank's capacity to take these profit-increasing steps.

Finally, considering that the pace of cross-border consolidation of financial institutions around the world has increased over the last few years, and has recently reached the retail banking market, what are the determinants of this process? As we have stressed in this paper, the revenue efficiency effect is particularly relevant for the cross-border consolidation, due to the benefits multinational banks can offer from serving customers that operate in multiple nations. These customers often require or benefit from services of financial institutions that operate in the same set of nations. That is, multinational non-financial firms may want to do business with multinational financial institutions. However, the recent wave of banking internationalisation since the 1990s – in which multinational banks have expanded their branch networks into Southern Asia, Central, Eastern Europe, and Latin America – is characterised not only by financial institutions following their existing relationships, serving mainly home country customers, but also by a greater integration with local markets. Therefore, although historically the pattern of bank international shareholdings followed that of the economic integration between countries, today the actual pattern of expansion depends on a wider range of factors than just the overall degree of economic integration between countries. In this connection, Grubel's (1977) theory of internalisation – which states that the ability to draw on the information and personal contacts between banks and the manufacturing firm's parent in a foreign country at a very low cost is the main source of comparative advantage of multinational banks – does not apply to the recent wave of foreign banks expansion in the emerging countries' retail banking market. This is typically the case of Latin American and Brazilian experiences during the nineties, where some European banks – such as BSCH, BBVA, HSBC and ABN-Amro – have mostly local customers with no previous connection with parent firms from the bank's home country.[9]

[9] For an analysis on the determinants of the foreign entry in Latin America and Brazil and the expansion strategies of the major European banks in Brazil, see Paula (2002).

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