The banking industry in Chile: competition, consolidation and systemic stability

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1. Introduction

Recent decades have witnessed remarkable changes in the banking industry around the world. Chile has been no exception. Higher penetration, consolidation and international integration have changed the banking industry structure. Many aspects of this process have important implications for the way the central bank accomplishes its work, particularly as regards ensuring financial system stability.

This paper has three main sections. Section 2 reviews the recent evolution of the Chilean banking industry in terms of growth, consolidation and internationalisation. Section 3 analyses the main challenges posed by banking consolidation and the reaction of the central bank. Finally, conclusions and closing remarks are presented. The analysis in this paper mainly considers developments since 1992, because changes in the Chilean banking structure before 1992 were strongly aimed at resolving the 1982-83 banking crisis, including repayment of subordinated debt.

2. Main trends

The Chilean banking industry experienced three important changes in the 1990s: (i) strong growth and an increase in efficiency; (ii) market consolidation and higher concentration; and (iii) international integration and an increase of foreign ownership. A comprehensive analysis needs to consider these developments as interrelated processes, since considering each tendency in isolation may give a misleading impression of the origin, direction and challenges of the transformation of the banking industry that was under way.

2.1 Penetration and efficiency

Penetration and efficiency are two features of the recent development of the Chilean banking industry. Penetration, measured by loans and deposits as a percentage of GDP, is far more advanced in Chile than in any other country in Latin America. Banking loans amounted to 70% of GDP and total deposits to 61% of GDP in 2000. These figures compare with 54% and 47%, respectively, in 1990. However, current levels of financial intermediation in Chile, while relatively high in the region, are still low by global standards.[2]

A related tendency is the increase in efficiency. Operating efficiency, measured as the percentage of expenses against gross interest margin, improved from 61% in 1992 to 58% in 2000, whereas gross interest margin went from 5.4% to 3.6% in the same period (Table 1). From these figures it can be computed that expenses over total assets went from 3.3% in 1992 to 2.1% in 2000, which can mainly be attributed to increased efficiency. At the same time, net margins (gross margins minus expenses over total assets) went from 2.1% in 1992 to 1.5% in 1999, reflecting increased competition during the period.

Interest spreads of Chilean banks are low by regional standards. Large banks in Chile exhibit gross interest margins of around 4.5%, lower than large banks in Argentina and Brazil, which fall within the

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[1] The views expressed are those of the authors.

[2] See Table A1 of the overview paper in this volume.

range of 5% to 10%. These differences reflect low interest rates and inflation and possibly higher competition in financial markets.

In addition, labour productivity, measured as operating income per employee, shows an increase of 110% between 1992 and 1999 (at 1998 prices). Investment in new technologies has had a favourable impact on banking efficiency, although this impact is difficult to measure.

Table 1

Banking penetration and efficiency, 1992-2000

	Loans (% of GDP)	**Expenses (% of operating margin)**	**Operating margin (% of total assets)**	**Return on equity (%)**
1992	54.0	61.2	5.4	17.0
1993	59.2	58.6	5.5	20.6
1994	56.7	63.8	4.9	19.1
1995	59.9	64.2	4.4	13.9
1996	65.1	63.5	4.5	16.6
1997	70.1	63.2	4.1	14.8
1998	71.5	59.4	4.6	12.4
1999	73.4	58.9	4.0	9.8
2000	70.0	58.3	3.6	12.7

As indicated by these figures, banks are functioning with high penetration and at an increasing level of operating efficiency relative to their asset bases. These trends are the result of a long and stable period of economic expansion and sustained economic stability, which forced banks to be disciplined. Significant participation of foreign banks in the domestic market has also enhanced competition and efficiency. A stable and strong banking system is in a better condition to accommodate structural changes, as higher penetration lowers lending risk.

2.2 Consolidation

A second trend of the banking industry in the 1990s was increased concentration. The Herfindahl-Hirschman index (HHI) rose 200 points between 1992 and 2000. However, this index had declined before 1992 as a result of Banco del Estado, a state-owned commercial bank, and Banco de Chile, the largest private bank, simultaneously reducing their market share. Market share of the five largest banks (C5) shows the same pattern in the 1990s, increasing from 52% in 1992 to 61% in 2000.

Even considering the recent increase, the concentration level in Chile is moderate if compared with small developed and emerging economies. For instance, average C5 of Latin American countries, excluding Chile, was 61% in 1999. Small OECD countries also show high concentration. For example, Denmark, the Netherlands, Portugal, Sweden, and New Zealand have a C5 market share above 80%. Finally, in a sample of 15 major US metropolitan statistical areas, the average C5 share is around 65%.[3]

This evidence suggests that, depending on the definition of relevant market boundaries, high concentration ratios are frequently observed. Banks are becoming less specialised entities and traditional boundaries between market segments are tending to disappear. Moreover, customers

3 See also Table A1 of the overview paper in this volume.

favour obtaining most services from a single institution, as they can reduce search and transaction costs. Consequently, in relatively small markets banks have incentives to diversify their services to acquire a dominant position. In this environment, market forces encourage higher concentration.

The total HHI increase in Chile between 1992 and 2000 is the result of a number of mergers, but it remains well below the levels defined in US Bank Merger Screening Guidelines as a trigger for further examination. These guidelines establish that if post-merger market HHI is over 1800 points and the increase is over 200 points, then the merging parties should be prepared to provide qualitative information that will mitigate possible anticompetitive behaviour. This relates to geographical market definition, impact on medium-sized and small businesses, and supply of specialised products that very few other banks would be able to provide after the merger.

Two forces driving the increase in concentration are: internal growth and external moves, such as mergers and acquisitions. Internal growth of large banks reflects competitive advantages of size, whereas growth dominated by external factors is consistent with the existence of excess capacity or inefficiencies derived from an excessive number of banks. In such case, mergers and acquisitions bring benefits through economies of scale.

HHI and C5 concentration measures show a U-shaped curve in the 1990-99 period. The turning point takes place around 1994. Changes before that year mostly reflect the efforts to resolve problems inherited from the 1982-83 financial crisis. Concentration increased in 1995 due to external factors, as Banco O'Higgins acquired some small foreign banks. Then in 1996 Banco Santander Chile (6.8% of assets) merged with Banco Osorno (6.5%) and Banco O'Higgins (6.8%) merged with Banco Santiago (8.5%). These operations produced noticeable changes in market structure as HHI went from 731 in December 1995 to 913 in December 1997, the largest two-year increase within the analysed period. Apart from these acquisitions, average growth for merged banks was lower than the growth rate of other banks with similar attributes, suggesting that endogenous forces tended to decrease the concentration level.

Table 2

Banking consolidation, 1992-2000

	HH index (total loans)	C5 (loans plus investment)	Private banking institutions	Non-banking institutions
1992	704	51.7	35	4
1993	722	51.2	33	4
1994	673	50.9	32	4
1995	731	50.8	30	3
1996	799	55.5	29	3
1997	913	61.0	28	3
1998	922	61.7	28	3
1999	926	62.5	28	1
2000	904	60.8	27	1

Evidence from the banking sector in the United States supports the hypothesis that external forces, through mergers and acquisitions, largely explain the consolidation and concentration trend in the 1990s (Stiroh and Poole, 2000). Excess capacity in this market is considered as a consequence of large-scale deregulation on interstate and intrastate branching, technological innovation in distribution networks (ATM and online banking) and new financial products. In contrast, the Chilean regulatory environment has been stable since the 1980s, but globalisation and technological innovation are forces that produce analogous results. The strategy of large banks has been to grow in dynamic segments of the market.

Another feature of consolidation is the emergence of a single category of bank, providing an increasingly wide range of financial services. The number of non-bank institutions in loan and deposit activities (finance companies) declined from four in 1992 to one in 1999. This process has also changed the structure of bank income, with an increase in the portion of fee income and earnings from subsidiaries at the expense of traditional intermediation earnings. The latter went from 84% of net income in 1995 to 77% in 1999.

2.3 International integration

International financial integration was a clear trend in the 1990s, and was reflected in both volume and composition of private sector external financing, which grew from around 20% of GDP in 1990 to nearly 40% of GDP in 2000. A substantial part of this increase was in the form of bonds and ADRs placed by domestic companies, mainly in the second half of the decade. External loans to the banking system also acquired greater relevance during this period.

It is important to note the considerable increase in domestic investors' holdings of international assets. Private sector direct and portfolio investment abroad went from a tiny 2% of GDP in 1992 to 36% of GDP in 2000. Chilean banks have started to engage in commercial activities in the region, representing 17% of the stock of domestic investment abroad. Domestic pension funds have played an important role in this process, mainly after the 1997-98 financial turmoil. Financial institutions hold the bulk of international investment. In all, these structural changes are forcing the banking system to operate in a more open and competitive environment.

Another defining characteristic of international integration in banking is the high level of foreign ownership and control. Chile has no restrictions on foreign ownership in financial markets as it applies national treatment to foreign investors. Of 28 private banks, 10 are domestically controlled while foreigners control 18 institutions. As of June 2000, domestic private banks represented 35% of the financial system's assets and foreign private banks 53%. Out of this share, BSCH and BBVA control around 55% of total assets. Approximately 30% of foreign bank ownership is by American banks.

Table 3

International integration, 1992-2000

	External financing to private sector (% to GDP)	**Private investment abroad (% to GDP)**	**Asset share of foreign banks (% of total assets)**	**Foreign banking institutions**
1992	7.1	1.5	20	22
1993	9.9	2.5	19	20
1994	12.9	4.5	20	19
1995	13.2	4.5	22	17
1996	18.0	5.7	27	17
1997	25.6	8.8	29	17
1998	29.9	15.8	32	17
1999	34.9	29.4	53	19
2000	36.2	35.6	56	19

Although the presence of foreign banks is usually related to innovation and productivity increases, domestic banks show standards of development and efficiency similar to foreign banks. For instance, average asset quality, measured by non-performing loans as a percentage of total loans, has been comparable for domestic and foreign banks (0.7% and 0.9% for the 1992-99 period). Expenses over total assets evolved along similar lines during this period, with slightly better performance for foreign banks (2.7% for domestic banks and 2.3% for large foreign banks). But undoubtedly the significant presence of foreign banks has enhanced market competition.

Market strategies among foreign banks may be put in two categories: multiproduct and niche competition. Banks that follow the first strategy compete in all segments and seek a significant market share. This is the case of BSCH and BBVA. In the second group, there are some regional foreign banks that compete in trade and related services generated by MERCOSUR, like Banco Nación Argentina and Sao Paulo. Also in this category are some foreign banks specialised in financial trading of securities, foreign exchange, interbank loans and money market dealing, with limited participation in domestic loans.

3. Challenges of banking consolidation

The Chilean Central Bank Act establishes that its basic objectives are to safeguard currency stability and the normal functioning of domestic and international payments. These are permanent objectives, although how they are implemented can be significantly affected by the changing economic and financial structure. The relevance of implementation lies in the fact that financial development has a clear positive effect, but at the same time domestic and international financial disturbances have been an undesirable by-product of the process.

New challenges that arise from international financial integration and capital mobility have received considerable attention. The consequences of banking consolidation for the central bank mission have also received increasing consideration. This section addresses the latter issue using three questions. First, to what extent should banking consolidation be a concern for central banks or financial market regulators? Second, are central bank objectives a complement to that of reducing the risk that may arise from banking consolidation? Third, what are the implications for the future? These questions are addressed on the basis of recent Chilean experience.

3.1 Banking consolidation concern

From the central bank standpoint, the main concern over banking consolidation is its effect on systemic risk and hence on financial system stability. There might also be some negative consequences of consolidation for the competitive environment. But ultimately, the degree of competition in the banking industry strongly depends on the quality of the regulatory and supervisory framework, international financial openness, degree of penetration of the banking sector in the economy and overall economic stability. However, questions remain about the effect of banking concentration on systemic risk, financial stability and monetary policy management. This connection also depends on the specific circumstances in each economy and may evolve with some of the trends that have characterised the recent transformation of financial markets and with the policies of regulators and central banks.

The latter subject was highlighted in Chile after the merger of Banco Santander and Banco Central Hispano in Spain in 1999. These two banks controlled the largest and fourth largest banks in Chile, in terms of percentage of total loans. A merger of the two banks in Chile appeared likely, which would have created the largest bank in the domestic market, with a market share of around 27%, well ahead of the 14% share of the second largest bank. In the case of a merger, the market share of the five largest banks (C5) would have gone from 63% to 69%.

The Banking Act does not contemplate specific mechanisms to deal with a major bank merger. The Superintendency of Banks (SBIF), when examining a merger or large acquisition considers several issues, like solvency and other attributes of investors, but not market competition or concentration. The joint control and possible merger of these two banks in Chile generated an investigation by the Competition Authority and an active public debate with the participation of legislators, especially from the Finance Committees of both chambers of Congress.

In dealing with this operation, the SBIF consulted the central bank’s view on the legal, economic and financial consequences of merger of Banco Santander and Banco Santiago. The central bank based its response on financial stability and monetary policy management and, given the economic circumstances, concluded that on balance the merger was not desirable. The central bank’s line of reasoning centred on three effects of an increase in concentration: higher systemic risk in the banking industry, transition risk and difficulties for monetary policy management.

The effect of concentration on systemic risk depends, in turn, on the specific characteristics of the banking industry. As a general rule, a higher degree of concentration is related to larger systemic risk, because “too big to fail” conditions may expand the safety net and increase the risk of the payment system. But this connection is conditional on other characteristics of the banking sector and the international integration of the domestic financial market, with less integration leading to a stronger effect of concentration on systemic risk. In addition, if higher banking concentration coincides with concentration in the countries owning subsidiary banks, there may also be third-country risk in the domestic market.

Transition risk relates to dynamics of consolidation and industry restructuring. The basic idea is that systemic risk increases with the magnitude of changes in concentration, apart from its long-term level. Rapid consolidation, through accelerated growth or acquisitions, tends to disrupt some institutions and threatens financial system stability.

The third point in the central bank’s response concerned the difficulties that concentration may create for monetary policy management. This assessment is related to specific characteristics of managing peso liquidity and the exchange rate band system in Chile.

Soon after this episode, the Banking Act was amended to explicitly cover mergers and acquisitions. The new provisions state that mergers or acquisitions involving a “significant market share” must have prior approval of the SBIF, which would only be able to reject the merger petition with the consent of the central bank. This approach confers limited ability to stop mergers outright. However, the new provisions also give the SBIF the option to stiffen its prerequisites for banks’ mergers. Specifically, the SBIF could mandate that banks comply with one or more of the following: (i) maintain a higher weighted capital/asset ratio, up to 14%; (ii) meet a higher liquidity requirement; or (iii) limit the balance of interbank loans to a maximum of 20% of the bank’s capital. A key aspect of this legislation is the percentage equivalence of “significant market share”, which was set by the SBIF at 20% of total loans. However, a market share between 15% to 20% also requires the authorisation of the SBIF, and the bank is required to maintain a Basel capital requirement of at least 10% for a period of one year.

In sum, banking consolidation may have adverse consequences on systemic stability and monetary policy management. The magnitude of this effect depends on the quality of the regulatory and supervisory framework, international financial openness, degree of penetration of the banking sector in the economy and its capital base and overall economic stability.

3.2 Central bank’s policies and banking consolidation

Central banks need to adapt their policy framework to the new challenges posed by economic and financial developments, including financial globalisation and technological innovation, which are at the root of banking industry restructuring. So an important aspect for the aforementioned assessment of banking concentration is to determine whether pursuing the central bank’s objectives in the new environment is complementary to the purpose of reducing risk of banking consolidation.

Three developments in the Central Bank of Chile’s policies are important to address: exchange rate regime; international financial integration and financial market development.

(a) Monetary policy and exchange rate regime

In September 1999, the central bank abandoned a prolonged period of exchange rate bands and opted for a floating regime. This decision was taken to improve the capacity of the economy to absorb foreign shocks and give more independence to monetary policy management. The central bank will only intervene in exceptional circumstances and give detailed reasons for doing so.

Direct consequences of this new regime have been less foreign exchange market interaction between the central bank and commercial banks and the regulation of peso liquidity following monetary policy considerations. These two effects point to a lower impact of banking concentration on monetary policy management, as there is less scope for exchange rate speculation against the central bank.

On the other hand, the floating regime creates incentives to increase private sector international assets, deepen the exchange rate market and widen the use of risk coverage mechanisms. Steps to develop domestic financial and foreign exchange markets have accompanied these market trends.

Again, these processes reduce the effect of banking concentration on monetary policy management as the exchange market widens. For example, the increase of private international assets leads to a reduction of bank's percentage of private international assets. This, in turn, means a decrease in the incidence of banking concentration on the foreign exchange market.

Another innovation in monetary policy management is an electronic procedure for open market operations, starting in 2001. This system maximises the market's competitive potential and allows for a prompt reaction by the central bank if any anticompetitive conduct in the interbank liquidity market is discovered.

(b) International financial integration

International financial integration is a vehicle with which to deepen the domestic financial market, to buffer economic shocks and to maintain the normal functioning of external payments. Central bank policies on prudential regulation in this area follow the same lines as the exchange rate regime. Currently, there are no restraints on capital account transactions other than prudential regulations for banks and institutional investors. Since the reserve requirement reduction to 0% in 1998, several measures have been taken in the same direction. First, the minimum one-year period for foreign investments to remain in the country before repatriation of the principal was removed. Second, peso-denominated foreign debt instruments were introduced. Third, banks' use of interest rate and credit derivatives was extended both domestically and abroad, especially for hedging on fixed income portfolio and commercial loans. These instruments may be denominated in domestic or foreign currency. Fourth, the percentage of international investment allowed for pension funds and insurance companies has been steadily increased.

The links between international financial integration and the lower risk of banking consolidation are unmistakable. The former cuts financial costs, increases market competition, eases liquidity restrictions in difficult times, diversifies domestic risk and reduces economic dependence on export prices. Together with prudential regulation, these effects lower the risk of banking concentration.

In addition, international financial integration reduces the small market size effect and hence the impact of concentration in the domestic market. Corporations face more diversified financing alternatives and there is less freedom to exercise market power.

Chile joined the General Agreement on Trade in Services promoted by the WTO. In this setting, Chile committed to a certain level of openness in financial services, which is nonetheless a minimum expected to expand further as we embark on future negotiations with different trade areas.

(c) Financial sector development

An important element of central bank policies is aimed at strengthening the domestic financial system by improving the regulatory framework, comprising good supervisory practices and stringent disclosure requirements. This framework provides the disciplinary function that market failure hinders, especially managing risk. Recent steps in this direction include measures to monitor diverse sources of risk better, as banks began embarking on more sophisticated activities. These new guidelines incorporate standards for interest rate, currency and liquidity mismatches for the banking sector.

Application of these norms checks the risk increase associated with new financial products, enabling banks to use a much wider set of contracts than in the past, which also helps to deepen the financial market. Regarding the use of more instruments, banks have been authorised to carry out futures, forward and swap transactions in domestic and foreign currencies and interest rates. Domestic banks are now allowed to extend their international operations, including investment and loans abroad.

These measures put domestic banks on the same footing as foreign banks that could perform these operations from their international headquarters. Moreover, a more complete market strengthens competitive forces, lowering the potential market power. More equitable competition in the banking industry reduces the portion of consolidation that does not correspond to technology advances or genuine competitive advantages, but to unevenness in regulatory norms. Aligned with this effort to produce equitable competition is the new treatment of licence applications, enacted in 1997, which is based on objective parameters and evaluations.

Finally, it is important to mention that the central bank is currently implementing an ambitious reform of the payment system, in order to enhance efficiency in transaction management. Improving payment systems increases financial system efficiency as costs reflect more appropriately the risk of payment and settlement transactions.

3.3 Implications for the future

Judging by existing trends and changes in the banking industry, consolidation is likely to continue in financial markets. Among several consequences of this process, however, the most important concerns from a central bank's perspective are the effects on systemic risk and expansion of the safety net. Some of these concerns can be partially alleviated by improving the operational and supervisory approaches to international financial integration and financial sector development, which are among the permanent objectives of the central bank.

However, since banking consolidation is an ongoing process, additional consideration needs to be given to better understanding its consequences and policy implications. Particularly important in this regard is the promotion of efficiency in financial markets. Prices of financial products should reflect their cost, including the associated risk, in order to increase transparency and efficiency. The possible spread of cross-subsidies, asymmetric information situations and lack of transparency become particularly important, and difficult, when systemic risks and the safety net are implicated. Moreover, trying to maintain competitive equity in financial markets makes for genuine competition among institutions reducing the adverse consequences that banking consolidation may have. Levelling the playing field between domestic and foreign banks is particularly important for a competitive setting.

A further topic regarding the future implications of consolidation is banking organisational design and the need for consolidated supervision of financial conglomerates. In particular, capital adequacy requirements need to be expressed on a consolidated basis in order to prevent double or multiple gearing. This would address part of the concerns about safety net expansion to non-bank subsidiaries.

These principles will serve as a basis for designing new policies to strengthen the financial system in the presence of a sustained consolidation trend.

4. Conclusions

Consolidation is one of the trends that characterise banking industry restructuring in Chile, although the level and magnitude of changes of concentration are still less significant than in other markets in the region or in small developed economies. This trend interrelates with the expansion of banking activities in the domestic economy and international integration of the financial sector.

Banking consolidation is a matter of concern to central banks as it may have adverse consequences on systemic stability. The magnitude of this effect depends on specific circumstances of each economy, such as quality of the regulatory framework, supervision practices, international financial integration, competition equity and financial market sophistication.

The pursuit of the central bank's permanent objectives is complementary to the goal of reducing the risks that arise from banking consolidation. Policies aimed at providing financial system stability and efficiency should take into account the processes of banking consolidation and increasing globalisation of financial transactions. Three improvements of the Central Bank of Chile's policy framework in this respect are the floating exchange rate regime, increased international financial integration and financial market development. Actions taken in each of these categories have helped reduce the risk that arises from banking consolidation.

However, since consolidation is likely to continue in financial markets, further policy measures may be necessary in order to maintain a competitive environment and strengthen market efficiency. To achieve their purpose, these policies have to work with the incentive structure of market forces, including technological progress and international financial integration.

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