

The Polish Banking System: A Case for Bank Consolidation and Foreign Participation

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I. INTRODUCTION

Since 1989, a major crisis has existed in the banking systems of Eastern Europe and the former Soviet Union. For even the most developed of these countries, banking inefficiency continues to be a serious setback in economic transition. As Poland sits on the brink of European Union membership, it must quickly evolve its banking system into one that is consistent with that of the European community. In order to achieve this objective, Poland's banks must put aside their Soviet past and begin offering reasonably priced products and services comparable to those offered by their European counterparts.

Information and transaction costs remain high in Poland due to remnants of the Soviet system and a lack of up-to-date technology. Under the Soviet system, banks acted as a transmission belt of the state receiving money from the government and passing it on to borrowers based on governmental directives (Dittus, 1994). Accounting and financial systems during this era were poorly developed, and as a result, it has been difficult for banks to accurately gather information about their borrowers since the transition (Baer, 1995). In addition, there is a scarcity of highly trained bank employees who have knowledge of market analysis and loan appraisal in Poland since these positions were not necessary prior to transition (Baer, 1995). These problems result in high information costs for

banks because it is difficult to effectively process and use information. Technological advancement has also been a serious problem in Poland. Poland ranks thirty-ninth in technological advancement in the world, placing it far behind current EU members and some of its Eastern European neighbors (Ranking, 2003). This disadvantage is also reflected in the high information costs found in the Polish banking system. If Polish banks wish to succeed in the global banking market, they must have the technology to process a large volume of transactions quickly and cheaply.

Being able to provide inexpensive products is not enough to guarantee the success of Polish banks; they must also be able to deliver the products and services demanded by customers. Following the collapse of the Soviet banking system in Poland, banks essentially existed as regional monopolies, because new startup banks were undercapitalized and foreign banks were restricted by regulation (Slay, 1996). With a regional monopoly, there was no incentive for banks to innovate, because they already held the vast majority of the market share. Polish banks will soon have to face competition and their lack of innovation in the past will put them at a large disadvantage. When Poland enters the European Union, it will be forced to allow foreign banks to operate in its country, and domestic banks will be forced to compete with these banks for customers

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(Jones, 1994). Polish banks will have to offer new products and services in order to remain competitive, so steps must be taken now in order to ensure that Polish banks are ready for this transition.

This paper argues that the best solution to dealing with the high costs and poor range of products and services that plagues the Polish banking system is to promote bank consolidation and foreign bank participation. Section II of this paper will review previous research on bank consolidation and foreign bank participation as solutions to Poland's banking problems. In Section III, I develop a formal argument for bank consolidation based on the principles of economies of scale and an argument for foreign participation based on oligopoly decision-making through game theory analysis and the learning curve. In Section IV, I illustrate the success of these practices by examining the advancements made by Bank Handlowy following consolidation and partial foreign ownership. Section V concludes with suggestions on how to implement these policies.

II. LITERATURE REVIEW

Bonin and Leven (1996) argue that in the underdeveloped Polish banking system, bank consolidation would be cost effective and lead to better services. They claim that economies of scale exist that would allow consolidated banks to have lower unit costs. This would occur because fixed costs could be divided among a wider range of services leading to lower unit costs for expensive items such as new computer systems. In addition, banks would be able to provide better services at lower costs to their clients if banks were consolidated. This would occur because the time needed to process transactions would decrease along with transaction costs because more transactions would involve intrabank transfers. Polish banks would also be better equipped to serve large clients because consolidation would create a large capital base and more deposits. The authors further point out that with more revenue and resources, more

attention could be paid to developing new products and services.

Bonin, Mizsei, Szekely, and Wachtel (1998) argue that foreign participation in the domestic market will lead to product and service innovation, increased exploitation of economies of scale and scope, and an environment of competition. The authors claim that because domestic banks are often preoccupied with technology problems, a lack of personnel, and undiversified loan portfolios, there tends to be little innovation in the banking systems of transition economies. Foreign banks have the experience and technology to

develop new products and services and can more easily bring them to the Polish market. If foreign banks are allowed to enter, domestic banks will learn from their foreign competitors and copy new products and services making the overall market better off. In addition, the authors claim that foreign banks will bring in new products and technologies that will allow domestic banks to better exploit economies of scale and scope. They argue that foreign banks can introduce some financial services such as insurance, portfolio management, and brokerage activities to the market that would be difficult for domestic banks to introduce on their own since they have no experience. Polish banks could then learn more about these products and begin offering their own versions, while exploiting the economies of scale and scope associated with these activities. The authors also believe that new banking technologies, including new payments systems, would increase the importance of operating along economies of scale and further push for small bank consolidation through merger and acquisition. Finally, they claim that domestic banks have little experience with competitive pressure and foreign banks could offer competition that would lead to a more rapid innovation of banking services.

Buch (1997) argues that the positive effects of international bank participation outweigh the pos-

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sible negative effects associated with it. Many critics of foreign competition argue that it would drive many of the small domestic banks out of business in Poland. Buch claims that this is not the case because, although foreign banks can often operate more cheaply than domestic banks, domestic banks still have advantages in some areas. Local banks are at a comparative advantage to foreign banks for certain types of business because they have personal contacts with customers, a pre-established customer base, and a level of familiarity with the local market and local tastes. Buch further argues that foreign banks can contribute to a transfer of knowledge into the banking system that will improve domestic bank efficiency. Finally, the author claims that foreign banks are needed to service the multinational corporations that exist in Poland, because these companies often require services that domestic banks are not prepared to offer.

Overall, the previous research on this topic strongly supports bank consolidation in Poland, as well as the entrance of foreign banks into the local market. The aforementioned authors agree that this would increase the efficiency of domestic banks and allow them to be more competitive with their European counterparts. The models that I develop next further demonstrate the benefits of these processes and reinforce the arguments presented by the previous authors.

III. FORMAL ARGUMENTS

I first present an argument for bank consolidation based on the principle of economies of scale. Economies of scale exist when a firm can double its output with less than twice as many inputs (Pindyck, 2001). This occurs as long as the marginal cost of producing an additional unit of output is less than the average total cost of producing that same level of output. Economies of scale are therefore characterized by the downward sloping section of the U-shaped long-run average total cost curve. The lowest level of average total cost occurs where the long-run average total cost curve intersects with the long-run marginal cost curve (Pindyck, 2001). This is the point where economies of scale

are exhausted since the average cost at this level of output is equal to its marginal cost and as a result there are no further benefits to increasing output. Since, in the long-run, firms can vary all of their inputs including company size, it seems obvious that companies that exist in an industry with economies of scale should wish to grow in size. These companies should continue to follow a growth strategy until economies of scale are exhausted, and they can no longer gain through increased production.

Hubbard (2002) claims that the goal of financial intermediaries is to exploit economies of scale in the financial market by reducing the cost of providing services as the size of the funds they raise increases. Economies of scale in the banking system exist from a variety of sources. Gramley (1969) suggests that economies of scale in banking are partially driven by specialization of labor. He claims that the tasks performed by bank employees require intense knowledge of specific information, and these tasks cannot be properly carried out without specialization. He also argues that the large variety of activities offered by most commercial banks require proficiency in many different areas which best lend themselves to large scale operations where departmentalization can occur. Forestieri (1993) suggests two other potential areas of economies of scale in banking: technology and information. Computer and information technologies are areas that can lead to greater efficiency as the firm's size increases because the cost of new technologies are often largely fixed and can be divided among a huge number of transactions. Increased size can also lower the cost of gathering information since procedures and technologies can generally accommodate many additional transactions without large increases in cost.

Forestieri identifies over a dozen scholarly studies, which indicate that decreasing per unit costs and a downward sloping section of the U-shaped long-run average total cost curve exist in the banking industry. This is a good indicator that Poland's small banks could significantly benefit from a growth strategy. An increase in the size of Polish banks should decrease their transaction and information costs by lowering the average costs of each additional unit.

As a result, the new larger banks would be able to offer banking services at prices closer to those of their foreign competitors. Polish banks should keep increasing in size until they are no longer able exploit additional economies of scale by doing so. This will be the point where the short-run average total cost curve of the firm intersects its short-run marginal cost curve as well as its long-run average cost curve and its long-run marginal cost curve.

It seems obvious that, based on economies of scale, banks should attempt to increase in size to exploit the gains that exist in the industry, but how should banks go about this process? Banks could simply begin a growth strategy relying on retained earnings and contributed capital to grow over time. This

is a very slow process though and would not eliminate banking problems in the near future. Banks could also be consolidated based on governmental decision-making. This may be a quick way to perform the process, but it ignores market forces and could potentially lead to corruption and rent-seeking, neither of which are economically efficient practices. The best strategy would be to allow banks to consolidate naturally through merger and acquisition. This would allow market forces to decide which banks were viable in the long-run. This may not be as quickly implemented as government driven consolidation, but according to Bonin, Mizsei, Szekely, and Wachtel, this could be done relatively quickly and effectively if legislation were designed in a way to promote merger and acquisition activity. Poland must support some method of bank consolidation if it wants its banks to be financially-sound in the future. Allowing for mergers and acquisitions is likely to be the most successful method.

Secondly, I argue that foreign banks should be allowed to participate in the Polish market. According to Hubbard (2002), there are three distinct ways that foreign banks can participate in a domestic market: as agency offices, as foreign branch banks, and as foreign subsidiaries. Agency offices cannot

accept domestic deposits but can make loans in the domestic market. If agency offices were allowed in Poland, they would not bring about too much change in the banking industry because their business is limited to loans. In addition, agency offices are not widely used in international banking, so they are not the best option for change in Poland. Foreign subsidiary banks function according to the rules of the country where they operate but are owned by a foreign firm and usually occur when

a foreign company buys out a domestic bank. The advantages of foreign participation highlighted by Bonin and his colleagues in, as well as by Buch, could largely be achieved if foreign banks were allowed to freely acquire Polish banks.

Foreign banks have more ex-

perience and would introduce new banking practices and technologies to the domestic banks, which these banks could then acquire. Finally, foreign banks could establish foreign branch banks, which have the ability to accept deposits and make loans but are generally started from scratch by a foreign bank rather than through a buy out (Hubbard, 2002). These banks usually bear the name of their foreign owner and could offer advantages to the Polish banking market through competition. Foreign subsidiaries and foreign branch banks both seem to offer potential advantages for the Polish banking system. To more clearly illustrate these advantages, I make an argument for foreign subsidiaries based on the learning curve and foreign branch banks based on oligopoly decision-making through game theory analysis.

If foreign banks purchase banks in Poland, they will wish to install the technology and banking methods that they have successfully used elsewhere. These technologies and practices would obviously carry with them large economies of scale, which would reduce costs as previously discussed, but would also carry with them a learning curve. As these banks implemented the new innovations brought to them from abroad, they would progres-

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sively become more efficient at carrying out the new practices and using the new technologies. This would occur because workers take more time to do tasks as they are learning them and gradually become more efficient as their training progresses (Pindyck, 2001). Ultimately, the period of time needed to complete tasks decreases and, with it, the average total cost of completing each task or transaction. As a result, the average total cost curve will shift downward for all levels of production (Pindyck, 2001). As the average total cost curve shifts, the cost of producing every unit of output decreases. The average total cost curve will continue to shift downward until the new practice is fully implemented and employees have found the most effective and time efficient way of carrying out the new practice. The learning curve process therefore involves downward shifts in the average total cost curve, as opposed to the movement along the average total cost curve associated with decreased costs due to economies of scale. Because of these downward shifts, foreign subsidiaries will allow banks to exploit the learning curving, as well as economies of scale, ultimately leading to cheaper financial services for Polish customers that are more competitive with international standards.

The banking system is essentially an oligopoly market in most countries, because only a limited number of banks exist due to economies of scale and banking regulation, both of which create barriers to entry in the market. Because there are only a limited number of banks and their products, though differentiated, are often substitutable, banks must consider the actions of their competitors when making decisions. In Poland, the regional monopolies mean little competition exists in the banking market. If foreign banks were allowed to enter the Polish market and create branch banks, the resulting competition would improve Polish banks and benefit the banking system, as a whole, because the decisions of the branch banks would influence the decision-making of domestic banks.

To see how foreign bank competition will force Polish domestic banks to innovate and modernize, one can examine a few simple examples of

oligopoly decision-making based on game theory analysis. For instance, if a domestic bank and foreign bank are both considering offering a new product to their customers in the southern region of Poland, both firms must consider the decision of their competitor. The payoff matrix below, Figure 1, shows the annual profits achieved by each firm given the other firm's decisions:

FIGURE 1
Payoff Matrix

| | | Polish Bank | |
|---------------------|----------------|---------------------|--------------------|
| | | New Product | No New Product |
| Foreign Bank | New Product | \$100,000; \$50,000 | \$150,000; \$0 |
| | No New Product | \$90,000; \$20,000 | \$60,000; \$40,000 |

In this case, if the foreign bank creates a new product, it is in the Polish bank's best interest to follow suit; however, if the foreign bank does not produce a new product, it is in the Polish bank's best interest to also not produce a new product. In this case, the foreign bank has a dominant strategy, a strategy that it should follow regardless of its competitor's actions (Pindyck, 2001). It would be in the best interest of the foreign bank to produce the new product regardless of the Polish bank's decision. The Polish bank, on the other hand, has no dominant strategy and therefore must consider what decision its competitor will make. Because it is in the foreign bank's best interest to produce the new product, it will do so. The Polish bank should also produce the new product because it will earn a higher profit by producing it than by not producing it. As a result of this competition, the market gets a new product that otherwise would not have been present had the Polish bank remained the regional monopoly.

Even if neither bank has a dominant strategy, as previously described, foreign competition can still create a positive situation in the Polish banking system. For instance, if there are two new products being introduced into the financial market, but there is enough demand in the market for a product if only one bank produces it, then the situation illustrated below in Figure 2 will occur:

FIGURE 2
Payoff Matrix

| | | | |
|---------------------|-----------|----------------------|----------------------|
| | | Polish Bank | |
| | | Product A | Product B |
| Foreign Bank | Product A | \$-50,000; \$-50,000 | \$100,000; \$100,000 |
| | Product B | \$100,000; \$100,000 | \$-50,000; \$-50,000 |

In this situation, one bank must make a decision first because the risk of both banks introducing products at the same time and both introducing the same product is too high. The foreign bank would likely proceed first in this situation because it has more experience with product placement. The domestic bank would then attempt to do its best given what the foreign bank had chosen, in essence, searching for its Nash equilibrium (Pindyck, 2001). If the foreign bank was to choose Product B, then the Polish bank should naturally choose Product A because this choice maximizes its profits given the constraints imposed by its competitor. Once again, the Polish bank would be encouraged to be competitive and introduce new product lines or technologies because of foreign bank entry. It is impossible to guess what sort of payoff matrices will face Polish banks following the complete introduction of foreign banks, but it seems that these banks will help to bring about competition and

innovation.

It appears that both foreign bank participation and bank consolidation will lead to advantages in the Polish banking system. For the optimum results, however, these methods must be used in conjunction. Bank consolidation, practiced alone, could create a situation in which Polish banks gain a large degree of monopoly power since the number of banks in the system would be reduced significantly. This could potentially lead to higher prices and fewer services in the industry. However, Bonin and Levin argue that if foreign banks are allowed to participate fully in the Polish market, this situation can be avoided and the banking sector could flourish. In addition, bank consolidation would allow Polish banks to withstand the competitive pressure brought on by foreign competition without closing even though foreign banks will bring with them more capital and resources. This combination of consolidation and foreign participation, over time, should bring Polish banks up to the standards of their Western European counterparts.

IV. EVIDENCE AND RESULTS: A CASE STUDY

In order to demonstrate the effectiveness of bank consolidation and foreign participation, I present the case of one bank in Poland that has undergone these procedures. During Soviet times, Bank Handlowy was a large state-owned bank that serviced primarily foreign trade firms and governmental transactions, but since that time has both merged and been purchased by a foreign bank (Murdoch, 1999). In June of 2000, New York based Citigroup, Inc. completed acquisition on the bank with the purchase of 66% of Bank Handlowy's shares (Citigroup, 2000). The bank also completed a series of mergers and acquisition with smaller domestic banks, increasing the bank's size and customer base. Today, the bank is officially known as Bank Przemysowo-Handlowy (Report, 2003). The bank has realized two important advantages to its new arrangement: the ability to offer new products and services and lower costs. New products and services are directly correlated to the increasingly

competitive nature of the financial market and the leadership of foreign owner Citigroup. Bank Handlowy has been able to develop customized banking services for retail clients and small businesses, expand electronic banking services, and increase brokerage and asset management operations (Report, 2003). The bank has also been able to increase its standing in the commercial banking arena by creating industry-specific departments for its largest clients (Report, 2003). These departments allow the bank to offer more specialized products and services to big-ticket clients. In addition, Bank Handlowy has been able to successfully increase its market share and increase profits by offering these new options. These products and services clearly show innovation in the Polish market brought about by the participation of Citigroup.

Bank Handlowy has also been able to exploit the economies of scale associated with its new larger size. Between 2001 and 2002, Bank Handlowy dropped its cost-to-income ratio from 63.6% to 63.4% despite the severe financial hardships the Polish economy suffered during that period (Report, 2003). A new information technology system has allowed the company to exploit economies of scale and the learning curve as well while creating a system that now serves 2.7 million customers at more than 500 locations (Report, 2003). Cost saving measures such as this will ultimately give Bank Handlowy an advantage in the marketplace by allowing it to offer more products at lower prices.

Bank consolidation and foreign participation have clearly helped Bank Handlowy achieve its goals and increase its position in the market. Other banks could certainly benefit in similar ways from these methods. If banks are allowed to follow natural market forces and merge and interact with foreign banks, they should move towards the success achieved by Bank Handlowy and could finally become competitive on the international scene.

V. CONCLUSION AND POLICY IMPLICATIONS

The goal of this paper has been to illustrate how the inefficiencies of the Polish banking system

can be tackled through bank consolidation and foreign participation; however, in order for such policies to be successful, they must be widely accepted and implemented by the Polish government and people. Thus far, foreign participation has met only limited acceptance in Poland. Very few foreign branch banks have been allowed to exist in the country (Polish, 2002). Jones (1994) claims that the Polish National Bank is reluctant to allow foreign branch banks to operate because legislators would prefer foreign banks to become strategic partners with faltering domestic banks or even to purchase failing domestic banks making them subsidiaries. This can be clearly seen in the differing treatment the government gives to foreign branch banks and foreign subsidiaries. Foreign bank subsidiaries are allowed to carry out many types of business activities including such things as insurance and investment banking while foreign branch banks are restricted from these areas (Polish, 2002). This clearly gives foreign subsidiaries a large advantage over branch banks. A general fear of foreign banks still exists among the populace. Many believe that foreign banks will take over Poland's banking industry entirely, and the public outcry created by such fears has led to protectionist policies (Fear, 1998). These issues must be conquered if Poland wants its banking system to be competitive in the future. To be successful, the government needs to gradually start allowing foreign banks to establish themselves in Poland, which should lead to increased competition without overwhelming the market.

It is widely accepted that Polish banks are currently too small to handle global competition, and the government has taken some steps to push banks towards consolidation (Jones, 1994). The Polish government has created legislation that establishes minimum capital requirements for all banks. Banks will be required to hold 500,000 zloty by the end of 2005 and 1 million zloty by the end of 2010 (Polish Banking System, 2002). These measures should help to eliminate poorly capitalized banks and will hopefully reduce the number of banks as well. To ensure further and more rapid consolidation, the government could attempt to implement merger-friendly policies including tax breaks, which would further help the

consolidation process (Bonin, 1998).

The research and theories that I have presented seem to offer a solid theoretical argument for the success of the Polish banking industry under the policies that I have suggested. Economies of scale and the learning curve effect should lower transaction and information costs if banks are allowed to consolidate and foreign banks are allowed to purchase subsidiaries. In addition, foreign participation should lead to competitive actions among banks in the industry and new products and technologies. It is now up to the Polish government to take additional action to ensure that these practices are fully and effectively carried out.

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