

## **THE CASE FOR UNIVERSAL BANKING AS A COMPONENT OF ISLAMIC BANKING**

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*Universal banking is one of the main components of Islamic banking. Islamic banks provide finance to enterprises through either sharing directly in the net results of their activities or financing their purchases of assets, goods and services on credit. We can therefore expect Islamic banks to hold equity in corporations and sit on their boards of directors. This paper aims to put forward the case of universal banking as a part of Islamic banking. A large amount of literature is surveyed that comes from banking theory, macroeconomic and monetary theory, as well as empirical studies about banking practices. The conclusion is that universal banking on its own is a sound practice that can offer developing countries special advantages. Such a conclusion is rather important because many of the Islamic countries where believers in Islamic banking reside are developing. It would therefore be helpful to see that Islamic banking as it contains universal banking would give a helping hand in the process of development that would not be easily obtained from conventional banking.*

### **1. INTRODUCTION**

Islamic banks are unique institutions that draw their characteristics from Islamic *Shari'ah*, several centuries of traditions, and contemporary economic thinking and banking practices. By every measure, it is an innovation when compared to conventional banking. Yet, it is not far removed from the finance and banking industry, as it shares several common characteristics with contemporary practices.

Some specialists in Islamic monetary and financial economics have insisted that universal banking is one of the main components of Islamic banking. Islamic banks provide finance to enterprises through either sharing directly in the net results of their activities or financing their purchases of assets, goods and services on credit. We can therefore expect Islamic banks to hold equity in corporations and sit on their boards of directors. They use the information obtained from their vantage

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point to reduce risk from information asymmetry and to fine-tune their finance directed to the same corporations. In addition, they can trade in goods and services, provide Islamic insurance, and operate in financial markets. In other words, they operate like *universal* rather than commercial banks (Al-Jarhi, 2003).

The practice of universal banking is generally accepted as part of Islamic banking, but not commonly followed by Islamic banks. Islamic finance was an old practice that was generally forgotten for sometimes and gradually replaced by conventional banking. Perception of Islamic banking started as an old painting covered with dust and superimposed images. But, it is gradually and slowly coming clearer over time. A lot of literature has come out during the last quarter of a century to put some clarity into the old picture. In addition, Islamic banking as a concept has come back in the twentieth century while the banking and finance environment is highly sophisticated and current practices are well entrenched. We do not therefore expect novel ideas to be accepted on purely religious basis, reasoning must be made as rigorously as possible. Every part of Islamic banking must be rationalized in a way that would make sense both to bankers and economists.

Universal banking has been practiced in only few countries, mainly Germany, Belgium, Italy, Japan and few others. Such practice continued while the dominant Anglo-Saxon world has set commercial banking as a standard practice within a heavily regulated environment. Therefore, universal banking must be justified, using the economics yardstick. The literature has grown immensely on universal banking during the last decade. Many writers have come up with justifications for universal banking and many others have expressed opinions that varied from mere doubt to outright hostility. It required a lot of sifting to find the main justifications behind universal banking.

This paper tries to put forward the case of universal banking as a part of Islamic banking. A large amount of literature is surveyed that comes from banking theory, macroeconomic and monetary theory as well as empirical studies about banking practices. The conclusion is that universal banking on its own is a sound practice that can offer developing countries special advantages. Such a conclusion is rather important because many of the Islamic countries where believers in Islamic banking reside are developing. It would therefore be helpful to see that Islamic banking as it contains universal banking would give a helping hand in the process of development that would not be easily obtained from conventional banking.

The paper is divided into seven parts. The first part summarizes the perspective of universal banking from the vantage point of the banking theory. The second part surveys the Gerschenkron- Schumpeter's thesis of the role of universal banking in economic development. The third part presents a survey of the European experience regarding universal banking from two vantage points: that of Fohlin and

of Da Rin and Hellmann. The fourth part summarizes an interesting debate between Fohlin and Temin on the role of universal banking in the industrialization of Europe. The fifth part presents the Da Rin and Hellmann model of big-push model and catch-up economy that can be considered to be the main contribution of macroeconomic theory to the topic on hand. The sixth part considers universal banking as a practice that would come out of deregulation under the practice of integrated financial services provision (IFSP) or integrated banking. We can therefore visualize universal banking taking many shapes each of which has its own pros and cons. The seventh and last part summarizes the findings related to universal banking and how it reflects on Islamic banking as a whole.

## 2. A PERSPECTIVE FROM BANKING THEORY

Banking has been practiced in two main formats. The first is common in Anglo-Saxon countries under the name of transactions or commercial banking. Its main feature is to intermediate between fund owners and users, giving short-term loans to the latter without involvement in the operations of fund users. The second format of banking came to be known as relationship or universal banking. Universal banks are “large-scale banks that operate extensive networks of branches, provide many different services, hold several claims on firms (including equity and debt), and participate directly in the corporate governance of the firms that rely on the banks as sources of funding or as securities underwriters” (Calomiris, 2000). In this section we look into the theoretical rationale behind relationship or universal banking and how it affects firms’ profitability before we compare intermediation with capital market services.

### 2.1 Why Banks Offer Relationship Finance

While competition constrains the ability of banks to extract *informational rents* from lending relationships, their informational monopoly also curtails competition through the threat of adverse selection. To analyze an intermediary’s optimal strategic response to these opposing effects Hauswald and Marquez (2000) specify a model where the severity of asymmetric information between banks and borrowers increases with informational distance. Intermediaries acquire expertise in a specific sector and exert effort in building lending relationship beyond their core business. They then compete with each other in transaction- and relationship-loan markets where they differentiate their loan offers in terms of informational location. As increased competition endogenously erodes informational rents, intermediaries shift more resources to building relationships in their core markets. This retrenchment from peripheral loan segments permits banks to fend off the competitive threat to their captive market. Outside their core segment they offer transactional loans. In equilibrium, both forms of debt compete with each other but intermediaries specialize in a core market with relationship banking.

## 2.2 Universal Banking and Information Asymmetry

In a world of asymmetric information, a bank can be exposed to *moral hazard* when the firm obtaining finance uses the funds for purposes other than those for which finance was advanced. This could lead to business failure and inability to repay. The bank would be exposed to *adverse selection* when it fails to choose the finance applicants who are most likely to repay.

Obviously, adverse selection can be avoided by careful screening of finance applicants. When a bank provides equity and debt finance simultaneously, it will have more access to information than when only debt finance is provided. We can therefore conclude that screening would be more effective and adverse selection less probable with universal banking.

Reducing the possibilities of moral hazard requires monitoring the firm that obtains finance. All three kinds of *ex ante*, interim and *ex post* monitoring must be exercised to be effective (Aoki, Masahiko, 1994). Equity finance provides the bank with access to information necessary to practice monitoring at all intervals. That explains why the research of Dewenter and Hess (1997) supports the idea that relationship (universal) banks are more effective monitors than transactional (commercial) banks.

Equity finance also reduces the firm's incentives to substitute riskier for safer assets. Meanwhile, debt finance would reduce the firm's incentives to hide its profits. Furthermore, when the firm faces problems, the bank, as an equity holder, will assist in order to protect its investment.

In summary, banking theory indicates that universal banking would be exposed to lower levels of moral hazard and adverse selection. In addition, by sitting on the firms' boards of directors, banks could influence corporate governance in the whole productive sector, leading to improvements in economic performance.

Empirically, it has been found that using a combination of debt and equity finance by banks seems to carry several advantages to both banks and firms, confirming theoretical findings. Banking theory would indicate that banks would be relatively more exposed to adverse selection during economic upturns and to moral hazard during downturns. Applied research has found that universal banks face lower risk than commercial banks during both upturns and downturns. In addition, the risk differential between universal and commercial banks gets wider and more significant during downturns (Dewenter and Hess, 1998).

In particular, German banks have been perceived to have maintained close, long-term relationships with industrial firms, which influenced banks' attitudes towards multi-period optimization (Fohlin, 1998). This opinion is supported by

Terrin (1998), but opposed by Fohlin (1998) as well as Miwa and Ramseyer (2000).

### 2.3 How Bank Relationships affect Firm Performance

Under universal banking, firms deal with one bank which is also one of its shareholders. Some economists suspect that such single firm-bank relationship could be less profitable.

Degryse, Hans and Steven Ongena (2000) empirical work suggests that the profitability of Norwegian publicly listed firms with bilateral bank relationships is higher than the profitability of firms with multilateral relationships. This result is quite robust. It holds controlling for firm age, size, debt, asset intangibility and Tobin's Q and in a variety of specifications. The result seems to confirm an implication of Yosha (1995) and von Rheinbaben and Ruckes (1998). If firms disclose proprietary information to creditors, firms using bilateral financing achieve higher sales profitability than those using multilateral financing

Focusing on the choice of the number of credit relationships, Degryse and Ongena (2000) and Yosha (1995) conclude that because firms are often required to disclose proprietary information to creditors, using bilateral financing achieves higher sales profitability than using multilateral financing.

Von Thadden (1998) shows that in equilibrium, firms occasionally switch banks, as an inside bank may try to overcharge the firm. The switching firms get, on average, better interest rates than similar firms remaining with the inside bank. However, adverse selection occurs such that *bad* firms switch bilateral bank relationships more often than do *good* firms. Controlling for firm characteristics such as age, size, debt structure, asset intangibility, and Tobin's Q, Von Thadden finds a negative correspondence between the number of bank relationships and sales profitability. Others find that firms replacing a single bank relationship are on average smaller and younger than firms maintaining a single bank relationship throughout the sample years (Degryse and Ongena, 2000).

### 2.4 Intermediation versus Capital Markets

Hackethal (2000) inspects the intermediation and securitization ratios to empirically answer the question of whether and how the financing structures of five of the world's largest financial systems, US, Germany, Japan, Britain and France, changed between 1980 and 1998. He finds that the financial systems differed to a great extent between the German and the Japanese systems on the one side and the US and the UK systems on the other side. He found that instead of convergence, the differences between the two types of financial structures have increased since 1980. The role of banks in financing small and medium enterprises has increased in

Germany and Japan. Losses of banks' market shares in deposits have compensated for by providing a broader variety of investment products to households and maintaining control over flourishing non-bank financial intermediaries specializing in collecting household funds and investing them in capital markets and with banks.

In the two capital market-based financial systems, the UK and the US, market mechanisms have increased in significance, and at the expense of traditional banking in the US. American banks compensated for the decline in traditional banking services by providing advisory services, tailor-made financial instruments, and risk management services. Competition accentuated the fundamental functional principles that are idiosyncratic to each financial system, implying a more clear-cut differentiation of financial system architectures.

Boot and Thakor (1996) reach a similar conclusion: in bank-based financial systems, the functions of information collection, risk allocation, financing and monitoring are performed well by banks, so that the demand for financial innovations is relatively low. In market-based financial systems, rapid financial innovation and increasingly sophisticated financial markets would complement and reinforce each other. Therefore, financial systems of different types are not expected to converge. Rather, path dependencies and pressure to improve efficiency tends to lead to more differentiation.

The following summarizes the main specifics of the comparison of the two financial systems.

#### **2.4.1 Banks and financial markets: complements or substitutes in the USA, Germany and Japan?**

Many economists perceive the American banking industry to be in decline (Hackethal, 2000).<sup>1</sup> Berger, Kashyap and Scalise (1995) consider advances in information technology and applied finance have allowed direct financing alternatives (e.g., commercial paper and corporate bonds) and other intermediaries (e.g., foreign banks and finance companies) to compete more effectively for larger borrowers than in some other large economies. Cheaper access to capital markets and financial innovations are thought to have made traditional bank products less attractive. Edwards (1996), who suggests that this decline is not limited to the USA concludes: "The decline in the importance of traditional banking may simply be the logical consequence of an evolving financial technology that is rapidly eroding the uniqueness of banks." The group who share this view on the one hand admit that

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<sup>1</sup> See: Boyd and Gertler (1993), Beckett and Morris (1992), Edwards and Mishkin (1995), Gorton and Rosen (1995), Greenbaum and Thakor (1995) and Miller (1998).

bank loans can be considered unique,<sup>2</sup> but regard on the other hand the services offered by banks and capital markets as substitutes, implying that banks and capital markets compete in the market for financial services.

Abandoning regulations that historically shielded banks from the competition of non-bank financial intermediaries (NBFIs) and organized capital markets is regarded as fuelling this substitution process, especially where banks based their strong position on regulatory protection. Globalization tends to intensify both forces: advances in ICT and deregulation.

However, Hackethal (2000) dismisses disintermediation as nonexistent in Germany, Japan, the UK and the USA. He notes that the fraction of all assets and liabilities of non-financial sectors that also appear on the balance sheets of financial institutions has been rising continuously over the last 20 years. The demand for the services of financial intermediaries has been rising, with the exception of France, where direct financing has been in decline during the late eighties and the early nineties of the last century.

Hackethal (2000) finds that financial intermediaries play fundamentally different roles in different countries. Securities are far more important as instruments for financing investment in the Anglo-Saxon countries than in Japan or Germany. France is an exception where securitization ratios increased from a level almost as low as that of Japan and Germany to a level which is even higher than that of the US.

From investors' perspective, bank intermediation has declined in importance in all five countries since the early eighties. From debtors' standpoint, banking intermediation has only lost ground in the US, the UK and in France. In contrast, the German and Japanese banking intermediation measure *vis-à-vis* alternatives have remained almost stable.

Traditional banking business is not declining in Germany. A relatively small number of large corporations are gradually entering national and international capital markets and obtaining a growing fraction of their external financing, while small and medium enterprises depend increasingly on bank loans.<sup>3</sup> As the extent of information asymmetry is negatively related with firm size (Edwards, 1996), the demand for bank monitoring in Germany and Japan is rising. Many banks have

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<sup>2</sup> On average, the announcement by an American corporation to take out a bank loan leads to an increase in the firm's market value. Based on the observation that entering a relationship with a bank creates value, banks are unique with respect to the fulfilment of specific financial functions James (1987).

<sup>3</sup> Deutsche Bundesbank (1998), [Hayasaki (1995).

refocused their business on one of their traditional core competencies, namely the surveillance and monitoring of “complicated” cases. Advances in ICT enabled banks to improve their monitoring techniques and maintain their comparative advantages *vis-à-vis* NBFIs. The same applies to Japanese banks (Hoshi 1996).

The main conclusion reached by Hackethal (2000) is that highly developed capital markets create opportunities for banks to act as catalysts. Most of the services offered by US banks do not compete with those offered by capital markets, but rather promote and support their functioning, i.e., banking and capital markets activities are becoming increasingly complementary. In the words of Charles Calomiris (1997): “American banks are finding ways to bring America’s comparative advantage in capital markets into their banks.”

#### **2.4.2 Do US banks avoid relationship banking?**

Hackethal (2000) cites seven pieces of evidence showing that American banking is predominantly “at arm’s length” from debtors.

1. The role of delegated monitors (Diamond, 1984) has been limited in the fifties and sixties of the last century and diminished further. The proportion of banks’ assets going as loans to enterprises was small and decreased further by 1997; the rest is composed of government bonds and claims on NBFIs. Such assets are not instruments for which excellent monitoring capabilities lead to a competitive advantage.
2. Since the Glass-Steagall Act of 1933, US banks had always been “less unique” than German and Japanese banks. They possess neither the capability nor the willingness to sustain relationships when the debtor is in financial distress. Rather, their typical relationship with their debtors is at “arm’s length”.
3. Between 1979 and 1994, the share of foreign bank loans to corporations more than doubled from 5.6% to 13.4%. Moreover, domestic NBFIs have been able to replace domestic banks as lenders to US corporations.
4. In reaction to the decline of loan business with corporations, American banks, unlike their German and Japanese peers, did not refocus on their core competencies, nor emphasize financing smaller enterprises characterized by larger information asymmetries. The volume of outstanding bank loans of less than \$1 million dropped sharply between 1989 and 1994 while larger loans remained almost constant and secured consumer credit and mortgage loans actually rose. Banks shifted away from making more to less information-intensive loans (and less costly) evaluation and monitoring. Hence, after 1985 the typical US bank clearly did not specialize in alleviating serious information asymmetries.
5. The consolidation in the US banking industry has resulted in a steep decline in the number of small banks, which traditionally provided most of

loans below \$1 million (Berger and Udell, 1996 and Berger, Kashyap and Scalise, 1995). Large acquirers did not attempt to utilize the debtor-specific information previously gathered by small banks and loans granted on the basis of this information, were not renewed after consolidation.

#### 2.4.3 Did American banks decline?

We can conclude that services of traditional American banking have been relatively less differentiated from those of domestic NBFIs and capital markets – than their German and Japanese counterparts. The entry of mutual funds into business with households, and of finance companies into business with enterprises has further eroded possible competitive advantages.

The decline of traditional banking did not lead to the decline of American banking institutions. Four facts reported by Hackethal (2000) illustrate that. First, intensive participation in capital markets had positive impact on bank profits. Second, price adjusted total assets of banks increased and kept growing. Third, the level of bank assets as a fraction of GDP remained roughly constant at more than 40%. Finally, the number of bank employees hardly changed.

Berger, Kashyap and Scalise (1995) provide a time series of Tobin's  $Q^4$  of the 50 largest banks holding more than half of the entire industry's assets. Between 1985 and 1994, the ratio was greater than 1 in most years and exceeded that of the American economy as a whole for all ten years. This confirms the presence of generally optimistic expectations about the American banking industry. In addition, Boyd and Gertler (1993) show that the US banking industry does still contribute a significant share of the financial sector's total value added.

Three new business areas may exemplify the changing character of the US banking industry. Firstly, banks utilized their branches, as a customer interface, to promote and to sell mutual fund shares. Secondly, they acted as underwriters of commercial paper, whose market grew enormously in the eighties and nineties.<sup>5</sup> Thirdly, banks have intensified their advisory services to households, enterprises

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<sup>4</sup> The ratio of the market value to the book value, indicating market expectations. . A ratio greater than 1 implies that the average market participant is optimistic regarding industry prospects.

<sup>5</sup> D'Arista and Schlesinger (1993) report that banks had underwritten 90% of the commercial paper issued by the 15 largest finance companies during that time. Boyd and Gertler (1993) estimate that in most cases the actual fee income from underwriting exceeded the interest income that could have otherwise been generated if banks had made loans to finance companies

and NBFIs<sup>6</sup> while the role of direct financing of US banks is fading, their role as providers of corporate risk management and other sophisticated financial products is growing.

#### **2.4.4 Banks in the UK**

Intermediation in the US and the UK are similar in patterns and structure. Both systems have capital markets where many firms are quoted, making available more information relevant for valuing firms to the general public. Information asymmetries between firms and external investors is therefore of less significance than in Germany or Japan, and monitoring by banks does not give them a comparable degree of a competitive advantage.<sup>7</sup>

The UK and US insolvency codes are highly debtor-oriented (LaPorta *et al*, 1997), making it relatively more difficult for banks to recoup their claims from financially distressed firms than in Germany or Japan. As a consequence, they have less incentive to collect information about a firm's operations that could be used for restructuring if it became distressed and thereby benefit from a continuation of the business relationship.

However, there are three major differences between British and American banks. First, in contrast to the US, the UK has no large commercial paper market. Instead, British enterprises use liquid stock and bond markets for long-term and financial intermediaries for short-term financing. The average maturity of bank loans is considerably shorter for British and US banks than for German banks (Borio, 1995).

Second, after 1971, when British banking cartels were abolished, more intensive competition ensued and traditional boundaries between institutional groups disappeared. While this has been mainly to the advantage of NBFIs, British banks and building societies succeeded in sharing in the resulting growth. In contrast to US banks, British large city banks specialized in short-term financing, while building societies dominated the mortgage market. Being at the core of new formed

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<sup>6</sup> Allen and Gale (1997a) argue that highly developed financial markets imply higher degree of complexity leading to higher participation costs for the inexpert. Financial markets have become mostly markets for intermediaries rather than for individuals. Because of their repeated contacts with individuals and enterprises, banks can seize a large share of advisory and transaction-oriented services related to those markets.

<sup>7</sup> A higher degree of overall transparency associated with stringent disclosure rules enforces this factor. LaPorta *et al*. (1996) have rated the stringency of disclosure requirements in 49 countries on a scale of 100. The UK scores 78, the USA 71, France 69, Japan 65, and Germany only 62 points (Hackethal, 2000).

financial conglomerates, banks secured a strong influence on the growing markets for services offered by NBFIs.

Third, British NBFIs are involved in a large portion of financial transactions and relationships that are covered in the US by securities traded on organized capital markets. While, investment funds, especially, money market funds, are the second most important group of NBFIs in the US, life assurance companies and pension funds dominate the UK NBFIs. Typically, household claims on life assurance companies and pension funds are not securitized in the UK, whereas a great portion of those assets are composed of securities in the US. As a consequence, British banks compete on their liability side much more with NBFIs than with capital markets. They positioned themselves at the centre of many financial conglomerates, which enabled them to curb the degree of competition to some extent and to seize more control on the intermediation process than US banks.

We can therefore conclude that traditional banking in the UK is not declining in importance as much as in the US. The financial system in the UK still allows for the participation of financial intermediaries in most financial transactions. British banks, while being at the centers of financial conglomerates, specialize in the provision of short-term loans to enterprises and of mortgage loans to households, with considerable success.

#### **2.4.5 Banks in France**

Due to the inefficiency of the bank-based French financial system of the mid-to-late seventies, the French government promoted the establishment of an organized financial market and planned for the privatization of large public enterprises. The banking industry was then deregulated [Berglöf (1996)], and capital markets and institutions associated with them flourished in the early 1980s. However, De Boisseu (1990) and Bertero (1994) report that banks own and manage most of the investment funds in France and are thus still the predominant players in the capital markets. Also, the business of underwriting corporate bonds is under the almost exclusive control of banks.

Meanwhile, Schmidt, Hackethal and Tyrell (1999) conclude that the changes in the competitive landscape proved too challenging. Local banks in France had not, prior to the reforms, developed the core capacities of providing liquidity insurance and credit monitoring. The system as a whole was in a state of imbalance during most of the 1990s. Whether the impetus toward a UK-style system will prevail or retrogressive forces will re-establish a stronger role of banks and the state remains to be seen.

### 3. UNIVERSAL BANKING AND ECONOMIC GROWTH: FOHLIN'S SURVEY OF GERSCHENKRON- SCHUMPETER'S THESIS

The influential works of Gerschenkron (1962) and Schumpeter (1934, 1939) placed banks at the center of economic growth. Their writings perceive banks at the center of the real economy acting as catalysts for industrialization and growth. The Gerschenkron-Schumpeter hypothesis is based on careful study of industrialization in several European countries that were arguably some of the most successful emerging economies ever.

Caroline Fohlin (1985b) of California Institute of Technology summarizes Gerschenkron's as well as his contemporaries' thesis on universal banking and critically evaluates them. In this section, we will further summarize her account and then we will deal with her critical views in the next section. Our summary borrows heavily from Fohlin writings, as much of it is based on some literature in German language that is not easily accessible to economists outside Germany.

#### 3.1 Schumpeter's View

Assuming *a priori*, that financial institutions' efficiency may vary depending on their structure, the real effects of financial systems should vary accordingly. The idea that financial institutions can actively promote growth is quite old. Schumpeter (1912)<sup>8</sup> suggested that bankers, through their selection and funding of entrepreneurs, promote innovative activity and spur economic growth.

Some recent work is beginning to offer models relating finance and growth.<sup>9</sup> Greenwood and Smith (1997) and Boyd and Smith (1996) offer models in which financial markets arise after some period of real development, and their expansion fuels further real growth. A logical implication of these models is that exogenous creation of a financial system with advanced features may not spur real growth.

These models begin to deal with the question of the ramifications of financial system structure.<sup>10</sup> Greenwood and Smith (1997) provide a first step toward thinking about such distinctions; showing that growth rates obtained in economies

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<sup>8</sup> This is a German volume cited by Fohlin (1998b).

<sup>9</sup> Fohlin cites, among the recent literature considering the causal relationship between finance and growth: King and Levine (1993), Japelli and Pagano (1994), Jayaratne and Strahan (1996), and Rajan and Zingales (1997), in addition to Lucas (1988), who doubts the importance of financial factors, thereby excluding them from his model of development.

<sup>10</sup> Fohlin (1985b) refers to the surveys made by Marco Pagano (1993) and Alexander Galetovic (1996) on growth and finance.

with either banks or equity markets exceed those of economies without financial intermediaries. Most of the literature offers no comparison of the relative benefits of different types of financial systems. Yet, the Greenwood and Smith (1997) model shows that, with sufficient risk aversion on the part of the investing public, equity markets produce stronger growth than do banks. In a series of papers, Boyd and Smith (1994, 1995, 1996) introduce the changing roles of debt and equity in the development process and show that, though stock markets should develop after a period of intermediary dominance, both debt and equity remain viable and complementary sources of finance.

Still, these models do not differentiate between universal and specialized banking in growth effects. King and Levine (1993), for example, formalize the Schumpeterian view into the framework of an endogenous growth model. In their model, the financial system affects productivity growth through four channels: screening prospective entrepreneurs for the most promising projects, mobilizing capital to fund investments, diversifying investors' portfolios to eliminate risk, and revealing the potential benefits of productivity-enhancing activities. Thakor (1997) who is explicitly concerned with the question of financial system design, lays out six partially-overlapping links between the financial system and the real economy: screening, credit rationing, liquidity transformation and bank runs, loan commitments by banks, debt restructuring, and the feedback role of financial markets.

Recently, an investigation of the relationship between finance and development finds that qualitative development in the banking sector to be significantly and positively related to economic growth (Koivu, 2002). Other economists stress the positive correlation between real economic development and stock market activity<sup>11</sup> and the loss of resources due to informational frictions in the capital market as a major obstacle to growth.<sup>12</sup> They stress the possibility of *underdevelopment traps* in which an economy's real and financial sectors display little co-evolution.

Some economists examine the direction of causality between financial development and economic growth (Calderón, César and Lin Liu, 2002). They find that (1) financial development generally leads to economic growth; (2) Granger causality from financial development to economic growth and vice versa; (3) financial deepening contributes more in developing countries than in industrial countries; (4) the longer the sampling interval, the larger the effect of financial

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<sup>11</sup> Blackburn, Bose and Capasso (2001); Atje and Jovanovic 1993; Demirgüç-Kunt and Levine 1996a,b; Levine and Zervos, 1996, 1998.

<sup>12</sup> McKinnon (1973) and Shaw 1973.

development on economic growth; (5) financial deepening propels economic growth through faster capital accumulation and productivity growth.

There is empirical evidence of the existence of an independent effect exerted by bank efficiency on real growth which corroborates the presence of a Schumpeterian channel, emphasizing the allocative function of banks (Fisman and Love, 2002). Theories relating finance to development do not deal directly with universal banking. In this regard, there is some recent evidence that debt and equity act more as complements to each other.<sup>13</sup> The cost of pure debt and pure equity finance rise with the level of development. At some point, lenders find it optimal to complement the use of debt with the use of equity as a double-edged strategy for dealing with a double (rather than single) moral hazard problem.

In general, financial institutions may enhance economic growth by raising the total quantity of financial capital available to entrepreneurs, improving the productivity of investments and increasing the efficiency of intermediation between the sources and uses of funds. Thus, the structure of financial systems may influence real variables, since different institutions may handle these tasks with varying efficiency.

### 3.2 Gerschenkron's View

Gerschenkron (1962) claimed that banks facilitated growth among developing (backward) countries. He argued that the nineteenth century Germany was relatively backward, with a poorly developed capital market and a scarcity of savings. Universal banking came in handy to mobilize savings, which stimulated growth in the heavy industry. The integrated, universal banks of Germany and other countries appeared to be the most efficient kind of intermediation. Gerschenkron related the creative role of banks specifically to the so-called "catch-up" problem. He argued that the main challenge for achieving rapid economic growth in 19th century continental Europe was the *coordination of industrial activity*. Britain had already pioneered industrialization, and the issue in continental Europe was to mobilize resources to follow its example.

Universal banks have been acknowledged since the nineteenth century for the part they played in Germany's industrialization. Many authors have written on the subject; but Gerschenkron's work, perhaps because of its simplification of the myriad complex issues, has appealed to a wide range of economists and historians, who speak of the "*Gerschenkron Hypothesis*." The Gerschenkron hypothesis holds that the role of financial institutions in industrialization depends on the extent of economic backwardness on the eve of industrial takeoff. He claims that financial institutions played a critical role in the industrialization of moderately backward

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<sup>13</sup> Demirgüç-Kunt and Levine 1996a,b.

economies, viz., much of northwestern continental Europe. In situations of extreme underdevelopment, as in Russia, financial intermediation was insufficient to support the transition to modernized industrial activity and needed to be supplemented by centralized institutional intervention, mostly from government.

Gerschenkron (1970) credited more than one factor with a positive role in industrialization; financial intermediation was only one of them. Those factors varied with general economic conditions and include the following:

1. The speed of industrial growth;
2. The stress on bigness of plant and enterprise;
3. The composition of the nascent output, that is, the degree to which “heavy” industries were favored;
4. The reliance on technological borrowing and perhaps financial assistance from abroad;
5. The pressure on levels of consumption;
6. The passive role of agriculture;
7. The role of banks and state budgets;
8. The virulence of ideologies, under the auspices of which the industrialization proceeded

#### **4. SURVEY OF THE EUROPEAN EXPERIENCE**

##### **4.1 Fohlin’s Survey**

The technologies already developed in industrialized Britain, were readily available to Germany for adoption. Yet, Germany suffered from relative capital shortage, i.e., the circle of family and associates of the typical entrepreneur could not provide investment at the required scale. It also suffered from the shortage of entrepreneurship. Universal banks have been viewed as the institutions that performed the capital-supplying functions and substituted for entrepreneurial deficiencies.

Gerschenkron was not alone (Tilly, 1994). Several German historians believed that “banks have become the direct promoters of the spirit of enterprise, the pacemakers for industry and trade” (Fohlin, 1998b), a sentiment that continued to be supported by modern economists. Others credit universal banks with contributing in many ways to the growth of German industry, especially through the mobilization of the financial resources necessary for industrialization (Chandler, 1990).

Kennedy (1987) attributed the superior growth performance in Germany (and the US) to a financial structure that made: “resources available to a large group of

technologically progressive industries on a scale unequalled in Britain, in the half century after 1865.”

Lavington (1921) stressed screening, monitoring, risk management, venture capital activities and economies of scale and scope: “An organization such as the *Deutsche Bank* possesses these qualities to a high degree... with able management ..., the risks of industrial banking are greatly reduced; business ventures in need of capital can be thoroughly investigated and the development of the more pioneering enterprises may be promoted with a reasonable prospect of success”.

The German universal banks with large networks of branches were credited with mobilizing capital, screening potential entrepreneurs, promoting and re-organizing industries, participating in the formulation of investment and production strategies, monitoring the progress of clients’ investments, arranging and enforcing propitious industrial combinations, and diversifying away risks.

Universal banks have provided substantial and efficient finance throughout firms’ lives, thereby reducing the costs of finance and promoting industrial investment and efficient allocation of the economy’s investment portfolio (Calomiris, 1995b and Tilly, 1994). Long-term relationships between banks and industrial firms were central to the acquisition and transfer of useful financial, strategic and entrepreneurial information.

Moreover, universal banks have gained significant say in the use of funds, and thus the types of investments made by firm, reducing uncertainty about borrowers, mitigating risks of moral hazard or simple bad judgment, and facilitating long-term lending, in the form of short-term credits on current account that were rolled over repeatedly. Pollard and Ziegler (1992) stress “that rolling short-term credit, perpetually renewed, could be the equivalent of long-term capital, or could be used to free the firm’s resources for long-term investments”.

Gerschenkron, among others, claimed that German, Austrian and Italian banks, “established the closest possible relations with industrial enterprises.” Ties between banks and firms were established and maintained through placement of bank representatives on firms’ supervisory boards.

Bank seats on supervisory boards are traditionally thought to have permitted oversight and direct control, over firms’ operations and decisions. Chandler (1990) notes, “The representatives of the German *Grossbanken* participated to a greater extent in the top-level decision-making of new industrial companies than did representatives of financial institutions in the United States and Britain.” He goes on to report that “...banks often had a significant say (particularly in the early years of a company’s history) in investment decisions, in the selection of top and even middle managers, in establishing administrative procedures, and in reviewing the

internal financial management of the enterprises that they had helped to finance.” Bank intervention is seen as improving operational efficiency, managerial organization, and, ultimately, profitability. Universal banks are perceived as marriage brokers: identifying advantageous combinations, in the form of cartels or mergers. Feldenkirchen (1991) noted that “the banks, with the *Disconto-Gesellschaft* in the lead, promoted the expansion of big enterprises such as the *Gelsenkirchener Bergwerks AG* and the *Harpener Bergbau AG*, expecting to achieve their aims more easily once industrial concentration had taken place”(Feldenkirchen, 1991).

Feldenkirchen (1991) gives, as an example the willingness of bankers to help firms solve idiosyncratic difficulties and ride out general downturns, the case of *Hoerder Bergwerks-und Huttenverein*, which, because of its exclusive relationship with the *Schaahausen’schen Bankverein* (and the private banker *Deichmann& Co.*), received crucial restructuring and survived a brush with bankruptcy. The cradle-to-grave relationships between banks and firms and the beneficial mutual commitment that resulted were “in the interest of the security, profitability, and longevity of a credit institution to provide for all of the credit needs of a firm, from its formation to its liquidation,” Mayer (1988).

In summary, universal banking activities and accompanying formalized bank-firm relationships were credited with raising the quantity, quality and efficiency of investment in the last half of the nineteenth and the start of the twentieth century. England, being seen as the first European country to industrialize, constituted the metric by which other experiences are measured. In the *Gerschenkronian* account, British industrial development proceeded gradually, and innovations required small infusions of capital that entrepreneurs borrowed from banks. The standard view of banking and industrialization, then, distinguishes sharply between the British and German experiences.

There is a second part to the Anglo-German comparison; involving the relative success of the two banking systems in promoting industrial growth at the end of the nineteenth century and the start of the twentieth. Britain is thought to have lost ground relative to its continental neighbors at the turn of the century, due to a failure to innovate and invest at the forefront of technology. Chandler (1990) concludes, “Germany had decisively outpaced Britain in producing and exporting the products of the Second Industrial Revolution.” German banks are thought to have promoted economic growth more effectively and efficiently than the British banks. Kennedy (1987) attributes the lack of long-term lending and venture capital to the *informational weaknesses* of the British system. Kennedy and Britton argued

that the German system's superior risk diversification placed Germany closer to its efficient portfolio frontier compared to Britain (Fohlin, 1998b).

#### 4.2 Da Rin and Hellmann's Survey<sup>14</sup>

This section summarizes Da Rin and Hellmann's (2002) account of the literature that documented the banking experience of Belgium, Germany and Italy. Gerschenkron (1962) called for assigning the job of capital provision in Germany to the "role of credit-creation policies on part of the banking system." Rondo Cameron (1967) noted that after 1830, the Belgian rapid growth was accompanied by the development of banking institutions. Schumpeter (1939) gave German *Kreditbanken* large credit for taking an entrepreneurial attitude and fostering the rise of large industries. While noting the link between fast industrialization and the financing of industry by private banks, economists were wary of the oligopolistic structure of financial markets. Tilly (1992) and Riesser (1910) feared that the power of banks would lead to the *ossification* of both the industrial and banking market structures. Confalonieri (1982) has been quoted to have made a similar remark about Italy after 1907 by Da Rin and Hellmann, (2002).

Da Rin and Hellmann, (2002) examine the historical evidence from Belgium, Germany, and Italy to show that a few large private banks, which preceded industrialization, financed the bulk of new industrial firms. They enjoyed considerable market power in an oligopolistic banking market protected by regulatory barriers to entry. Acting as both lenders and shareholders, they actively promoted investment in industrial technology, and engaged in coordination of industrial investments, thus pioneering universal banking. Over time, they actively encouraged the cartelization of several industries in order to protect the existing firms and the stability of their profits, possibly at the cost of slowing down growth and innovation in the industrial banking sector itself.

##### 4.2.1 Belgium (1830 to 1850)

Belgium was the first to follow Britain in the Industrial Revolution. Between 1830 and 1850, its GNP grew well above the European average. Its industrial capacity grew at a yearly average that is more than twice as in the previous thirty years. Critical to this success was the action of two banks with capital equal to two thirds of the capital of all industrial credit banks. The Société Générale was created in 1822, as the world's first joint-stock investment bank and became active in industrial finance from the early 1830s. The Banque de Belgique was founded in 1835, and engaged in industrial finance from the outset.

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<sup>14</sup> This is a summary of the survey conducted by Da Rin and Hellmann's (2002).

Entry of joint stock-banks was restricted, by government discretion and the two banks faced no competition. They assisted and actively encouraged firms in fast growing industries to adopt the corporate form in order to raise large amounts of external finance. Until 1838, they organized 55 industrial joint-stock companies and helped them raise a combined capital of 154 million Francs. The Société Générale invested 31% and the Banque de Belgique 26% of their capital in industrial equity in 1847. In 1860, the Société Générale controlled one fifth of the country's industrial joint-stock capital (1 billion Francs). These investments turned out to be profitable.

Da Rin and Hellmann, (2002) quote an economic historian (Cameron, 1967, p.145) as saying “banks did not respond passively to demand for credit, but actively sought new firms, underwrote their stock issues, financed potential stockholders, held stock in their own names, placed their officers on the board of directors of the companies they promoted, and ministered to the companies' needs for both working capital and new capital for expansion.”

The Société Générale and the Banque de Belgique were the first examples of universal banks. They identified industries with high growth potential, to which they extended credit and in which they bought equity participations. For this purpose they invented the financial trusts, which were holding companies that managed the two banks' industrial portfolios.<sup>15</sup> Bank managers advised their clients on business strategies, and sometimes acted as their financial managers. This way they enhanced the coordination of both the investment decisions made by scattered entrepreneurs as well as the activities of the whole industry.

#### 4.2.2 Germany (1850 to 1870)

Germany is often cited as the quintessential case of bank-driven development. Its economy experienced between 1850 and 1870 a quick industrialization that made it the first economic power on the continent. Like Belgium, its GNP grew faster than both the European average and its own growth during the previous two decades. Between 1860 and 1880 its industrial capacity grew higher than in the previous thirty years.

The German industrial credit banks, *Kreditbanken*, played an active role in industrial development combining commercial and investment banking activities and nurturing close relations with industry (Da Rin, 1996). Of the 40 *Kreditbanken* founded between 1848 and 1870, four accounted for most of the industrial credit

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<sup>15</sup> The Société Générale created one subsidiary and three investment trusts. The Banque de Belgique created two subsidiaries and two investment trusts, while they retained shareholdings of some corporations.

activities: The Schaaffhausen Bankverein, the Disconto Gesellschaft, the Bank für Handel und Industrie and the Berliner Handelsgesellschaft. Their capitalization accounted for nearly half of that of all industrial credit banks. They used mainly their own capital as a source of finance.

In Prussia, the largest German state, entry as a *Kreditbank* was restricted. The government granted a joint-stock charter only to the Schaaffhausen Bankverein. The other three *Kreditbanken* were organized as unincorporated limited liability companies. When incorporation was liberalized in 1871, and scores of new joint-stock banks came in, the financial sector remained fairly concentrated as a small number of very large *Kreditbanken*, the *Grossbanken*, dominated the smaller *Provinzbanken*. *Grossbanken* acquired several local and regional *Provinzbanken* in order to retain a leading position and keep up with the growth of the economy. Six large bank groups, *Konzernen*, thus came to dominate the industrial credit sector.

The credit channeled by *Kreditbanken* increased at an average yearly rate of 19.4% between 1852 and 1870, from 20 to 492 million Marks. Between 1851 and 1870, 259 firms incorporated, up from 102 in the previous 25 years. Incorporation was typically managed with the help of an industrial credit bank.<sup>16</sup> *Kreditbanken* acted as universal banks, providing loans, issuing securities and retaining equity positions in firms they concentrated in few regions: The Rhineland, Ruhr, Silesia and Saxony; and industries: mining, machinery, textiles, construction, and railways.

German banks frequently took equity participations in their client firms. These equity holdings absorbed much of the banks' capital: from the 13% of the Schaaffhausen Bankverein to 50% of the Bank für Handel und Industrie.

Universal banks were overall profitable, though losses were experienced in the early years. Their average dividends were generally high and each accumulated hefty surplus reserves. The personal nature of their business relationships allowed them to elicit and circulate information effectively, and to have a strong influence on investment decisions (Da Rin, 1996). As Richard Tilly (1966b, p.181) argued: "the contribution of German bankers to the mobilization of capital operated not only on the supply side but on the demand side as well; by organizing and allying themselves so closely with industrial enterprises, bankers strengthened and in part represented the demand for investment funds."

In Germany industrial concentration increased since the recession of the 1870's, taking the form of cartelization, both then legal and politically popular, as well as mergers and acquisitions. This consolidation process had been led by the major

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<sup>16</sup> *Kreditbanken* also supported firms that assumed unincorporated limited liability form.

*Kreditbanken*, each of which backed one industrial group and exerted influence to spur concentration in industries or simply upholding it. They helped groups like Krupp, Hoesch and the Rhenish Steel Works to become the dominant market players. Feldenkirchen (1991) provides additional evidence on the role of banks in the concentration of heavy industries, and remarks that when cartels proved brittle in the recession of the 1880s, banks promoted concentration through acquisitions. In the 1860s and 1870s, large universal banks were instrumental in the creation of the chemical industry, financing firms like BASF, AGFA, Degussa, Hoechst and Bayer (Da Rin 1998), which were extremely successful. They refrained from financing further entrants, enabling those firms to dominate the chemical industry.

#### **4.2.3 Italy (1894 to 1914)**

Italy industrialized rapidly between the early 1890s and 1914, when GDP and industrial output grew faster than in the previous two decades. Private industrial credit banks *banche di credito ordinario* played a key role in channeling savings towards industrial high growth sectors. The Banca Commerciale founded in 1894 and the Credito Italiano in 1895 controlled nearly two thirds of the assets of all industrial credit banks. Most of their funding came from their own capital, as deposits accounted for less than a quarter of liabilities. Other competitors were smaller banks. The Banca Commerciale and the Credito Italiano succeeded in imposing exclusive relationships to most of their clients.

Italian industrial credit banks were universal banks that encouraged firms to incorporate and managed the issue of their equities and bonds on the stock market. Between 1900 and 1913 Italian joint stock companies grew from 848 to 3,069, and between 1900 and 1907 they raised about 2.7 billion lire, mostly on the stock exchange. In 1897 there were 30 listed companies in the Milano Stock Exchange, which grew to 169 by 1908. Both the Banca Commerciale and the Credito Italiano played a major role in planning and financing these operations. Their investments in industrial securities ranged from 5% to 10% of their assets between 1895 and 1906, and their loans to large industrial firms accounted for another 20-30% of assets and income. Their net income rose many folds enjoying steady and accelerating growth.

Like Belgian banks with investment trusts, Italian banks managed their industrial participations through subsidiaries. But unlike their Belgian colleagues, they did so by acquiring control in industrial companies which they used as holding companies.

Gerschenkron (1962) argued that in Italy as in Germany, not only capital, but entrepreneurial guidance was channeled to the nascent and expanding industrial enterprises. As in Germany, they maintained intimate connections with industrial

enterprises and nursed it for a long time before introducing them to the capital market. They were also protective of the competitive positions of their clients.

##### **5. UNIVERSAL BANKING & INDUSTRIALIZATION: THE FOHLIN-TEMIN DEBATE**

Universal banking in Germany and Japan has been credited with giving both countries an advantage in industrial development and economic growth over much of the past 150 years (Fohlin, 1998). The supporting arguments are many.

Universal banking has been a key ingredient in Germany's industrial development before World War I, yielding economies of scope and greater efficiency. As they increased the volume and reduced the costs of finance, they promoted industrial investment (Calomiris, 1995a). Furthermore, German banks maintained close, long-term relationships with industrial firms. Calomiris (2000), through his study of pre-World-War I Germany, has found that universal banking served to reduce the cost of financing industrialization in Germany relative to its corresponding level in other countries where commercial banking is prevalent. He also found that the financial sector reached a higher level of allocative efficiency in the former than in the latter country. In contrast, British banks have been criticized for avoiding engagement with domestic industry and leaving firms to seek financing from other sources. Firms' recourse to securities markets served investors' short-term profit motives at the expense of long-term growth (Collins, 1991; Capie and Collins, 1992; Edwards, 1987).

Fohlin (1998) looks into whether German banks offered the advantages that have been ascribed to them; and whether the services by universal banks fueled economic growth. Noting that British banks were not prohibited from combining functions or from pursuing long-term relationships with industrial firms, their role in industrial growth should be related to rationing relatively low-return or high-risk ventures or failing to perceive or act upon favorable prospects (Fohlin, 1998). She uses aggregate bank balance sheet data to compare British and German banks, a step toward quantifying the financial-system growth effects over the decades leading up to World War I. She measures the rate of expansion and the ultimate magnitude of capital mobilized by British and German banks, then investigates the makeup of the banks' asset portfolios and estimates the extent of direct involvement by the two types of banks in equity ownership.

Her findings suggest that, compared to British banks, German banks maintained at least as much liquidity relative to their short-term liabilities, mobilized a smaller share of the economy's capital, and held an equally small proportion of their assets in the form of non-government securities. Furthermore, German banks seem to have held only a limited number of industrial equities in their portfolios mostly because of insufficient markets for new issues. She concludes that the gulf between

specialized and universal banking in terms of their influence on economic growth and industrial development is less than commonly believed. In comparing the contributions of the British and German banking systems, she finds no compelling evidence that one system consistently or significantly outperformed the other in raising the quantity or quality of investment. Her findings indicate that German universal banks, despite their broader involvement in corporate finance, accounted for a markedly smaller proportion of the economy than did British banks. The gap of the 1880s, mostly due to the later onset of industrialization in Germany than in Britain, only began to diminish after 1894 and never fully disappeared.

Universal banks may have, however, expanded their available capital at a faster rate, since they invested or lent a greater share of their total liabilities than did British banks. Until the late 1890s, German banks actually maintained more conservative coverage of short-term liabilities than did the UK banks. Only with the serious onset of the deposit business in the mid 1890s did the German cash-to-deposit ratios begin their steady decline.

Universal banking may yield economies of scale or scope compared to a specialized system, but these economies may also lead to excessive concentration, market power and inefficiency in the banking sector. Fohlin believes that without a significant period of real development, financial institutions can offer only limited benefits for economic growth. While she admits that the German economy has outperformed its British counterpart over the past century, she suggests that differences in banking structure are probably not the cause.

In response to Fohlin, Temin (1998) reminds us that Gerschenkron (1962) argued that Germany needed banking to mobilize savings in the nineteenth century because of its relative backwardness, manifested in undeveloped capital market and of savings scarcity. When universal banks mobilized savings, they stimulated the growth of heavy industry. Several economists have argued that the integrated, universal banks of Germany and other countries provide the most efficient intermediation. Fohlin starts from Pagano's (1993) simple linear model in which growth was equal to the product of the level of technology, the savings rate and the cost of financial intermediation. Taking the first of these as given, she argued that financial institutions can be evaluated by their effects on the volume of savings and by their efficiency in intermediation. Increasing the volume of savings often is termed mobilization, while more efficient intermediation equalizes the rate of return across the economy and yields greater output for a given amount of savings.

Fohlin calls these outcomes the *quantity* and *quality* of investments. Gerschenkron emphasized the role of banks in mobilizing savings. Fohlin shows that the ratio of financial assets to GNP was higher in Britain than in Germany before World War I. Banks had fewer assets relative to GNP in Germany than in Britain, although their assets rose more quickly and surpassed those of the British

banks before the war. She concludes from these data and from data on bank reserve ratios that financial institutions in Germany did not play the role in mobilizing savings that they played in Britain; or at least not until Germany had caught up with Britain in many dimensions.

Temin (1998) explains that Gerschenkron would have admitted that Germany needed universal banks because it had fewer financial intermediaries than Britain. The relevant comparison is not with Britain, which did not need universal banks, but with a less developed country that could not mobilize its savings. From the perspective proposed by Gerschenkron, Fohlin's data indicates that German banks were doing a very good job of mobilizing savings, thereby bringing Germany closer to the more advanced British economy.

Fohlin maintains that German banks held no more equity in industrial firms than their British counterparts. She mentions that banks in the Anglo-Saxon countries were not precluded by regulation from operating like universal banks. Her analysis implies that British banks did not adopt universal banking for possibly two reasons: The first is that the British banking structure was preferable to the German one which presumably was forced on the Germans by their relative backwardness. Moreover, the large British capital market allowed banks to specialize, while German banks did not have the same opportunity in their constricted capital market. This view suggests that nineteenth-century German institutions were used only because conditions would not allow better ones to flourish. It suggests that German capital markets in the late nineteenth century have suffered from greater, rather than smaller, costs of intermediation.

Temin points out that contrary to this view, however, Calomiris (1995a), argued that, in comparison to the cost of intermediation in American banks, the cost in Germany was very low. If the costs of intermediation were similar in both Britain and the US, then Calomiris' conclusion is relevant.

Another possible answer to the question of why Britain did not have universal banks can be drawn, relying on the concept of complementarity of Milgrom and Roberts (1990), which can be used to show that British conditions may not have been conducive to German-style banking, irrespective of the advantages and disadvantages of their corresponding banking structures, but rather to the institutional complementarities in each country. German banks would not have worked well in Britain, just as British banks would not have worked well in Germany. Temin (1998) points out that in a world filled with complementarities, there is no way to evaluate specific institutions and practices in isolation. To the extent that British or German banking was located within such a web of complementarities, it does not make sense to compare them with each other independent of the rest of the capital market. He emphasizes that complementarities are relevant because the German equity market was not as well

developed as it is in Britain in the late nineteenth century and perhaps until now. German firms relied more heavily on debt than British firms. The structure of finance in the economy as a whole must be considered.

Fohlin (1998) separates assets into debt and equity for banks but not for the economy as a whole. Fohlin shows that banks in Britain and Germany held approximately the same small share of their assets in the form of equity in non-financial firms. Since the equity market was less developed in Germany, German firms relied more heavily on debt financing than did their British counterparts. Edwards and Ogilvie (1996), using data from Goldsmith (1985), calculate that shares of domestic joint-stock companies were 12 percent of national assets in Britain in 1895 and 2 percent in Germany. These shares had changed slightly to 10 percent and 3 percent respectively by 1913. Temin concludes then that the share of business equity held by banks in Germany may have been larger than in Britain. Besides, German banks provided capital to industrial firms through what has been translated as the “current account,” a deposit with automatic overdraft privileges. The interest rate on overdrafts was 1 percent above the market rate; on deposits, it was 1 percent below the market rate. Banking finance of industry in Germany would be proportionately more than provided by British banks.

## 6. THE BIG-PUSH MODEL AND CATCH-UP ECONOMY<sup>17</sup>

### 6.1 The Model without Financial Intermediation

Questions regarding banks playing the role of a catalyst in prewar Europe can only be answered through guidance from theory. Da Rin and Hellmann (2002) referred to the theories of the big push that focused on identifying the reasons for the multiplicity of equilibria and for the existence of coordination failures. However, those theories gave little attention to possible remedies. In particular, the role of financial intermediaries has not been addressed in this literature. Taking this as a starting point, they developed a model to examine under what circumstances profit-motivated banks would act as catalysts for industrialization.

Matsuyama (1995) reviews the recent literature on “*big push*” models that followed the work by Murphy, Shleifer and Vishny (1989), and investigates the notion of catch-up economy which focuses on a variety of positive externalities between investments in order to derive the existence of multiple Pareto-rankable equilibria. In the typical model, a low equilibrium is characterized by a self-perpetuating belief that no industrialization occurs, whereas a high equilibrium is sustained by a self-fulfilling expectation that industrialization will occur.

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<sup>17</sup> Based mainly and borrows heavily from Da Rin and Hellmann (2002).

While big push models have been used to explain periods of rapid industrialization, it may come as a surprise that they have not addressed the role of banks. Instead, they study the conditions under which an economy gets stuck in a low equilibrium because of coordination failure, without looking into the institutions redress the lack of coordination. We are thus left with some important open questions. Can banks affect the economy-wide equilibrium? What are the theoretical foundations for the role of banks as catalysts for industrialization? What does it mean to create new industries or to be a catalyst for growth? And under what circumstances would banks want to take such an active role in the economy?

## 6.2 Introduction of Financial Intermediation into the Big-Push Model

Da Rin and Hellmann (2002) borrow from Schumpeter, Gerschenkron and others, to survey historic evidence from three European countries that experienced periods of rapid industrialization: Belgium from 1830 to 1850, Germany from 1850 to 1870 and Italy from 1894 to 1914. They focus on the role that banks play and uncover some interesting patterns.

Da Rin and Hellmann (2002) develop a new theory of the role of banks in promoting industrialization in emerging economies, starting from a “big push” model where there are two *Pareto-rankable equilibria*. A bank can induce the economy to move from the low to the high equilibrium, by mobilizing a “critical mass” of firms, i.e. invest in a set of firms that induces other banks and firms to invest in the emerging markets. A bank will only invest in a critical mass if it expects to recover its losses. This means that in the high equilibrium the bank needs to make profits on some additional firms outside the critical mass. The Da Rin and Hellmann model then predicts that banks will only play a catalytic role if they are sufficiently large to invest in a critical mass of firms and have enough market power to recoup their costs. Intuitively, the costs mobilizing the critical mass are reduced if banks are allowed to own equity through which they can have a share in the value they create by mobilizing the critical mass. This leads to an additional prediction of the model, that universal banks will find it easier to promote investments in new industries. They show that catalytic banks have one particular disadvantage: banking concentration may foster concentration in the industrial sector. More specifically, the number of entrant firms that are financed to compete with an industry incumbent is lower in the presence of large banks.

Looking for empirical evidence, Da Rin and Hellmann examine the cases where banks did not play a catalytic role in the industrialization of emerging economies. Introducing banks into the big-push model, the role of banks as catalyst to industrialization appears distinct from their traditional roles in the allocation of

capital and the screening and monitoring of individual firms.<sup>18</sup> The model is a good start for a macro theory of banking. This differs from relationship banking since it takes-up the economy-wide effects of the interactions of one bank with many firms at a time, as opposed to the details of the interaction between one bank with one client over time.<sup>19</sup>

### 6.3 Da Rin-Hellmann Model of Coordination Failures

Da Rin and Hellmann (2002) use a simple price-leadership model that allows for a one-dimensional parameterization of the intensity of competition in the financial market. They start with a group of small investors with a competitive fringe which can finance exactly one entrepreneur each and a lead investor who can always finance the rest of the entrepreneurs. When the financial market is perfectly competitive the leader disappears and the lending rate ( $i$ ) equals the deposit rate ( $r$ ). The market power varies inversely with the competitive fringe. When the fringe disappears, the leader becomes a monopolist.

Da Rin and Hellmann (2002) start with the case of competitive financial markets, with no lead investor but only a competitive fringe. They show that in this case there exist two *Pareto-rankable* competitive equilibria, one where all entrepreneurs invest and one where no entrepreneur invests. Intuitively, whenever there is a “large” number of entrepreneurs starting new firms, complementarities make it worthwhile for all to also invest. Likewise, when only “few” entrepreneurs set up a firm, it is not profitable for others to also do so. They name the equilibrium with no entrepreneurs the SQE (*Status Quo* Equilibrium) and the equilibrium with all entrepreneurs investing the EME (Emerging Market Equilibrium).

Da Rin and Hellmann (2002) consider the existence of multiple equilibria as a *coordination failure*. In the SQE the belief that no entrepreneur will set up a firm is self-fulfilling, i.e., it implies that no entrepreneur actually undertakes that costly action. Likewise, in the EME the belief that many entrepreneurs are setting up a firm justifies the investments by many entrepreneurs. They then focus on how to eliminate the SQE. For this purpose they look for the conditions under which banks, as financial intermediaries, can promote the emergence of markets in a way that does not rely on spontaneous or fortuitous coordination.

Their focus on banks is based on the European historical experience surveyed above as well as theoretical reasons. In an economy with multiple equilibria, with

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<sup>18</sup> See Fama, 1980; Diamond, 1984; and Stiglitz, 1985 and see Bhattacharya and Thakor (1993) for an extensive survey of modern theories of banking.

<sup>19</sup> For literature on relationship banking, see Allen and Gale (1997), Aoki and Patrick (1994), Dinc (2000), Rajan (1992), and von Thadden (1995).

only small savers whose direct financing to firms, is not able to achieve coordination and induce the emergence of new markets, some type of financial intermediation is necessary. Naturally, banks would be potential candidates for coordination. First, the availability of external finance directly influences entrepreneurs' decisions to set up firms. Second, funds provided by banks are essential input for most firms. Moreover, banks interact with many entrepreneurs and thus have a unique opportunity to induce coordination. Finally, they have a financial self-interest in the emergence of new markets.

#### 6.4 Banks as Catalysts

Da Rin and Hellmann (2002) consider the conditions under which an investor may act as a *catalyst*, i.e., an agent whose actions precipitate a change. In order to achieve coordination it is necessary for all entrepreneurs to believe that a *critical mass* of entrepreneurs will start a new firm. The critical mass is defined as the smallest number of entrepreneurs which, by creating new firms, make starting a firm the only equilibrium strategy for all other entrepreneurs. Da Rin and Hellmann break down the profits of a leader into two parts: one part resulting from mobilizing the critical mass, and that made on all other entrepreneurs. The leader needs to convince a minimum number of entrepreneurs to set up a firm despite their pessimistic beliefs. It can do so by offering them loans in which the interest rate is low enough to make them willing to set up a firm. The *leader* makes a loss on each of the loans to members of the critical mass. Once firms in the critical mass have been convinced to create a firm, all other entrepreneurs are also willing to follow suit. Thus, the leader sets the interest rate for entrepreneurs outside the critical mass to maximize his profits. The larger the competitive fringe, the fewer entrepreneurs the leader can finance outside the critical mass. Only when the competitive fringe is sufficiently small to allow the leader to recoup his losses from subsidized loans to the critical mass, the leader would be enticed to act as a catalyst.

While the presence of the leader allows the economy to move to the EME, entrepreneurs face a higher average cost of capital than under spontaneous coordination with perfectly competitive financial markets. This shows that the existence of market power, while helpful to promote coordination, also has a cost. In order to act as a catalyst, an investor needs to be *large enough* to mobilize a critical mass of entrepreneurs, as well as possess *enough market power* to make profits on the other entrepreneurs who start new firms, so as to recoup the cost of coordination. Da Rin and Hellmann (2002) use a Stackelberg model where a lead investor is a first mover and a fringe of perfectly competitive investors are followers. The leader is a first mover that has enough market power to recoup the

cost of coordination. By financing a critical mass, the leader acts as a catalyst for the investment of all other entrepreneurs.<sup>20</sup>

### 6.5 The Role of Equity Finance

So far we restricted investors to only provide standard debt contracts. In this section we show that the cost of coordination can be reduced, and sometimes even eliminated, if the leader is allowed to offer equity contracts. Suppose that the leader holds some equity. When the leader finances entrepreneurs with equity, he participates in the profits obtained in the EME, thereby internalizing partially the externality that is at the root of the coordination problem. This reduces the cost of subsidizing entrepreneurs in the critical mass and makes coordination easier. The decrease in the coordination cost also means that the competitive fringe can be larger.

### 6.6 Heterogeneous Firms

A potential problem with achieving coordination with heterogeneous firms is that the leader may not always want to implement the EME. The optimal contract, may not allow him to capture all coordination rents. This generates the need for market power. With heterogeneous firms the leader may choose the critical mass strategically, preferring, for example, to finance an entrepreneur whose firm is only mildly profitable, or even outright unprofitable, but that provides a large positive externality on other firms.<sup>21</sup> Therefore, there may be more than one critical mass and more than one target equilibrium. The resulting equilibrium may depend on what critical mass is mobilized. Heterogeneity of firms thus allows for a bewildering variety of ways of mobilizing critical masses and reaching different outcomes. In particular, Da Rin and Hellmann (2002) show that with debt contracts the leader always makes losses on *all* entrepreneurs in the critical mass. This implies that there is always a cost of coordination. As a consequence the leader requires sufficient market power to cover coordination costs. Meanwhile, the use of equity reduces and sometimes even eliminates the cost of coordination.

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<sup>20</sup> The structure of the financial market affects the bank's ability to engage in coordination. Undifferentiated Bertrand competition between the leader and one or several other investors would destroy any rents accruing to him. However, Cournot, differentiated Bertrand, or others would also leave some rents for the leader.

<sup>21</sup> Note that historically banks have often invested in infrastructural projects whose payoff takes a long time to arrive, if it does at all. Investment in railways and canals are typical examples of infrastructural projects with substantial externalities on the rest of the industry, even if unprofitable by themselves.

### 6.7 Bank Concentration and Industrial Concentration

In the European experience, concentration in banking was often associated with concentration in the industrial sector. Da Rin and Hellmann (2002) extend their model to consider concentration.<sup>22</sup> Banks start with financing *pioneers* in their own industries. Then, they continue to finance incumbents. Even if financial sector growth is good for the economy at large, the lead bank will mostly fend off any additional competition from the fringe banks. As a consequence, the lead bank has an incentive to somewhat retard the development of the financial sector.

Da Rin and Hellmann (2002) consider it a significant disadvantage that large and powerful banks have a vested interest in preserving industrial monopolies.

### 7. INTEGRATED FINANCIAL SERVICES PROVISION, IFSP<sup>23</sup>.

Many countries have been reforming their financial systems over the past two decades: removing barriers to entry, reducing portfolio restrictions and lowering directed lending requirements, and the general removal of many product limits in addition to the dismantling of regulatory barriers separating banking, insurance and securities activities. Legal and regulatory boundaries between different financial intermediaries have been rapidly disappearing in many countries, as in the repeal in 1999 of the Glass-Steagall Act in the United States. *Integrated Financial Services Provision* (IFSP) or *integrated banking* is becoming the norm around the world, with many countries having today no or very few restrictions on the ability of banks to offer, besides commercial banking services, securities, asset management or insurance services.

The disintermediation of bank assets and liabilities by capital market transactions has pressured banks to expand their financial services to cater to a greater set of customer needs and preferences. Technological innovations have provided financial institutions with a greater ability to deliver multiple financial services and exploit economies of scope. Regulators have responded to these market forces with the removal of restrictions. This has led to the rise of the *integrated financial services provision* (IFSP), that is, the ability of a financial institution to provide all types of financial services under one roof, as one of the standards in the financial services industry. Models of IFSP include universal banking, *bancassurance* and other models, such as *bank holding companies* engaged in multiple financial services. The issue of IFSP has not been without controversy. In the US, for example, debates about universal banking go back at

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<sup>22</sup> For other models on market power in financial markets, see Hart (1983) and Aghion, Dewatripont and Rey (1999).

<sup>23</sup> This whole section is based upon and borrows heavily from Claessens (2002).

least to the 1930s. The separation of commercial and investment banking then adopted in the US through the Glass-Steagall Act spread over time to many other countries, especially developing countries.

Claessens (2002) analyzes the benefits and costs of IFSP. Most analytical and empirical work to date finds IFSP to be beneficial for economies and firms as it enhances the efficiency of the financial sector, widens access to financial services and reduces financial-sector specific and overall economic volatility. The (limited) available evidence for emerging markets suggests important static and dynamic gains particularly in developing non-bank financial services such as pension and insurance services.

IFSP can have risks, however, and requires enhanced regulation and supervision in some areas, especially to prevent (more) leakage from any publicly provided safety net, and puts more emphasis on ensuring a contestable financial system

### **7.1 Why Regulate Banks?**

A bank and its permissible activities are defined by regulations rather than markets. Arguments for bank regulations hinge on the special nature of banks. Banks' illiquidity can have negative effects on the stability of the financial sector and reverberate to the real sector. They are also inherently fragile and susceptible to contagious runs owing to the combination of information asymmetries, intertemporal contracting, demandable par-value debt and high leverage (Diamond and Dybvig, 1983).

It has also been argued that banks are special because only banks can provide some essential forms of credit to corporations, especially short-term liquidity, which many argue that banks can provide it more cheaply because they combine committed lending (such as lines of credit) with deposit-taking services and economize on their cash and safe-securities holdings. Some argue further that the somewhat fragile capital structure of banks, disciplines them to monitor corporations properly.

However, many countries did not treat banks as special from a regulatory point of view until the 20<sup>th</sup> century. Following the Great Depression, governments have taken a greater role in overseeing banks. Prudential regulation and supervision to prevent moral hazard and to limit bank opportunities to take more risk have therefore accompanied safety net provision. An important element of the regulatory framework has been restrictions on the type of activities banks may undertake. Despite regulations, many financial crises have taken place arguably because of the poor oversight and intervention of regulators in environments with too generous safety nets.

## **7.2 Regulations around the World**

Using data on 54 countries surveyed by the Institute of International Bankers (IIB), it becomes clear that allowing banks to provide securities services is the norm around the world (Claessens, 2002). Out of the 54 countries, only China has a “pure” separate banking system—in the sense that banks are not allowed to engage in any type of securities and insurance activities.

The majority (36) of countries surveyed, including all EU-countries, allow banks to conduct securities business, including underwriting, dealing and brokering within the same banking organization. In 17 countries, financial institutions are allowed to engage—to varying degrees—in securities activities, either through a bank parent or a bank-holding company structure. Fewer countries allow banks to provide full insurance services (either as principal or agent) and only 6 out of the 54 have no restrictions whatsoever. Many countries, however, allow banks to provide insurance service through subsidiaries (26) or through affiliates (8). Only 14 out of the 54 countries do not allow banks to engage in insurance activities. These data shows that most countries allow full or close to full IFSP.

Claessens also reports Barth, Caprio and Levine (2001b) survey of the regulatory restrictions in 107 countries. They show that about three-quarters (84) either have no restrictions whatsoever on banks providing securities services (43), or permit banks to do so either through a bank parent or a bank-holding company structure (41). Another seven countries allow less than a full range of securities activities to be conducted in a bank, and only six countries prohibit the provision of securities services by banks. In case of insurance services, only about half (54) of the 107 countries either have no restrictions whatsoever on banks providing insurance services (8) or permit it with some restrictions (47). About one-third, (34) countries, prohibit the provision of insurance services.

US financial institutions have been engaged in some degree of IFSP using various exemptions for some time. Since the Gramm-Leach-Bliley (GLB) Act of 1999, financial services providers in the US are also formally free to provide banking, securities and insurance services under one roof (McCoy, 2002).

## **7.3 The Pros and Cons of Integrated Banking<sup>24</sup>**

In this section, we will look into the benefits derived from the wider scope of IFSP, its potential risks, how its safety and soundness are affected by safety nets, the corporate structure of banking organizations and financial conglomerates in emerging markets.

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<sup>24</sup> This whole section is Based upon and borrows heavily from Claessens (2002).

### **7.3.1 Benefits of a wide scope of financial services provision**

Having wider scope than ordinary banking, IFSP could have benefits related to economies of scope, diversification and information advantages. This section will discuss all three advantages conceptually and empirically

#### *1. Economies of scope:*

Economies of scope may arise both from the production and consumption of financial services (Saunders and Walter, 1994). A larger scale production of financial services can lead to cost advantages through economies of scale, including gains through concentration of risk management, administration functions, and integrated product development; marketing economies in the common delivery of different services; better information access and sharing across different product groups; reputational and pecuniary capital to be shared across different products and services; and enhanced potential for risk management through diversification gains. On the consumption side, economies of scope may derive from: the potential for lower search, information, monitoring and transaction costs; negotiating better deals because of increased leverage; and lower product prices in a more competitive environment.

Studies showing that economies of scope in US banking are exhausted at very low levels of output (Berger, Hanweck and Humphrey 1987; Berger, Hunter and Timme 1993) may have limited relevance as US banks were allowed to offer only limited investment banking services through a separate subsidiary of the bank holding company. Empirical studies that refer mainly to the combination of deposit taking banking with securities/capital market activities in European banks, where more integrated banking is allowed, have been inconclusive. Lang and Welzel (1995) report the absence of scope economies in German universal banks, but find such economies in small cooperative banks. Vander Venet (2002) finds significantly higher levels of revenue efficiency in European universal banks and more profit efficiency relative to specialized banks, suggesting some gains from integrated banking. He also finds superior monitoring capabilities on the part of universal banks.

The empirical evidence on the existence of economies of scope between banking and insurance service is very limited. Carow (2002) finds that the Citicorp-Travelers Group merger resulted in a positive wealth effect for institutions most likely to gain from deregulation. Life insurance companies and large banks (other than Citicorp and Travelers Group) had significant stock price increases, while the returns of small banks, health and property/casualty insurers were insignificantly different from zero. This is evidence that investors expected large banks and insurance companies to receive significant benefits from legislation removing barriers to bancassurance in the US.

### 2. Increased Diversification and Lower Risk:

A bank engaged in IFSP may be more stable than a specialized financial institution because of diversification benefits arising from three sources. First, the total profit of an integrated financial institution is more stable than that of a single-product one. Kwan and Laderman (1999) argue that since profits from providing different financial services are not very highly correlated, diversification would lead to certain benefits. Wall and Eisenbeis (1984) find a negative correlation between US bank earnings and securities broker/dealer earnings over the 1970 to 1980's period (Brewer, Fortier, and Pavel 1989 and Benston 1990). While US banking organizations' securities subsidiaries tend to be more volatile than banking affiliates, securities subsidiaries provided diversification benefits to bank holding companies (Kwan, 1998; Klein and Saidenberg, 1998).

As to the risks of allowing banks to enter into insurance industries, Allen and Jagtiani (1996) found that *synthetic universal banks* comprised of portfolios of banks, securities firms, and insurance companies have significantly positive excess returns, with lower market and interest rate risk exposures and higher expected returns than securities firms. Anecdotal evidence regarding financial conglomerates, mostly from outside the US, also suggests that the integration of banking and insurance lowers the variability of income streams.

Second, disintermediation will affect an integrated financial institution less because the decline in lending business can be offset by an increase in non-interest (fee) business. Incentives to engage in riskier lending to maintain profits when faced with disintermediation will be less. There is some support at the sectoral level that financial systems with fewer restrictions are more stable (Barth, Caprio and Levine 2001a).

Third, there may be important dynamic and broader economic impacts of IFSP on financial sector stability and efficiency, especially in emerging and developing countries. A well-balanced financial system with a wider scope of financial activities can reduce volatility and improve resource allocation (Easterly, Islam and Stiglitz 2000; World Bank 2001). In such a system, incentives to develop non-bank are better balanced. There is some empirical support that financial systems with fewer restrictions are more diversified (Barth, Caprio and Levine 2001a).

### 3. Informational Advantages:

A financial institution gathers costly information before making lending or investing in a firm. The longer the expected duration of the relationship with the firm, the more resources the financial institution would be willing to inject in gathering firm-specific information and the larger the financing provided to the

firm. IFSP institutions can offer a broader set of financial products than specialized financial institutions, which allows for lower information and monitoring costs.

Empirical research confirms that the close bank-firm relationship associated with IFSP can lower the cost and increase the availability of funding to firms (Berger and Udell 1995, 1996; DeLong 1991; Petersen and Rajan 1994; Vander Venet 2002 and Ramirez 1995, 2002).

### **7.3.2 Potential risks associated with IFSP**

IFSP comes with certain risks (John, John and Saunders 1994), most importantly conflicts of interest, increased financial risks and greater difficulty in monitoring IFSP institutions and the effects of on competition and concentration of economic power.

#### *Conflicts of interest:*

Conflicts of interest are plentiful even in specialized financial institutions. The possibilities for conflicts of interest nevertheless increase in principle when financial institutions are allowed to offer a wider array of products and have a broad set of customers, as in IFSP.

Conflicts are often identified as one of the major potential cost of permitting commercial banks to conduct securities business (Benston 1990, Kelly 1985 and Saunders 1985.). Typically, when a bank finances a firm, it is better informed than the public investor about its soundness and prospects. An integrated bank is therefore better positioned than a specialized investment bank to certify credibly the value of a security offered by the firm. However, it might have a greater incentive and ability to take advantage of uninformed investors

The incentives to exploit conflicts are constricted by market forces as well as potential reputation damage and monitoring by creditors and “non-market” players, like rating agencies. In such cases, conflicts of interest have not been found to be misused in a systematic way. Earlier empirical studies for the German universal banking system found no evidence of systematic abuse of conflicts of interest (Claessens, 2002). Gorton and Schmid (2000) found that German banks improved the performance of German firms in which they held equity with no conflict of interest in the use of proxy votes.

More recent studies for the German universal banking system confirm these findings. Lehar and Randl (2001) tested for informational advantages and misuse of conflicts of interests. They found evidence that banks had superior knowledge on firms where they own equity stakes, and some evidence for conflicts of interest. Interestingly, conflicts of interest were less pronounced for large equity holdings,

suggesting that client pressure rather than bank's self interest is the important driving force of overoptimistic forecasts with respect to equity valuation. As such, conflicts do not arise from universal banking as such, but more from their role as underwriters and analysts.

In the pre-Glass-Steagall era in the United States, it has generally also been found that broad or universal banks did not systematically abuse their powers (Ang and Richardson 1994; Kroszner and Rajan 1994). Securities underwritten by commercial banks' affiliates, for example, had higher prices (lower yields) than comparable securities underwritten by investment banks (Puri 1996). Other evidence suggested that greater banking powers involved gains for corporations. The presence of bank directors on corporate boards, for example, helped these firms in relieving their financing constraints (Ramirez 1995). More recent evidence on US banks' involvement in corporate governance in Kroszner and Strahan (2001) confirm that US firms are more likely to borrow from their connected banks, but do so on terms similar to those of unconnected firms.

Gande, Puri, Saunders and Walter (1997 and 1999) examine the pricing of debt securities underwritten by subsidiaries of US commercial-bank holding companies relative to those underwritten by investment houses. They find no evidence of conflicts of interest in bank underwriting to repay existing bank debt. In addition, bank underwriting is on the whole beneficial to smaller firms. While there have been cases of misuse of information, it does not appear that there has been a systematic abuse of conflicts between commercial and investment banking activities.

Gorton and Schmidt (1996) consider universal banking to be an alternative mechanism to stock market for risk sharing that could provide information to guide investment. If German banks were acting as substitutes to the stock market, their behavior would improve corporate performance. Alternatively, banks could benefit from the inside information they gather about the firms they lend while exercising monopolistic power over access to external finance. This would lead to conflict of interest between banks and other shareholders, particularly those who have delegated their voting proxy rights.

Gorton and Schmidt (1996) test the conflict-of-interest hypothesis between German banks during the 1970s and 1980s. They find that German banks improved the performance of firms they finance to the extent of their equity holdings. No evidence was found on the conflict of interest concerning the use of proxy votes. This was the case in their sample of 1974. In 1985, German security markets became more developed. While banks continued to affect corporate performance, their influence could not be distinguished from that of non-bank shareholders. The study of Gorton and Schmidt appears to cast substantial doubt on the conflict-of-interest hypothesis.

Gorton and Schmidt (1996) investigate the potential conflict of interest in the issuance of public securities when the underwriting of the initial offering is done by an investment bank that holds equity in the concerned firm. The underwriter would be similar to a universal bank. The evidence in their study suggests that the conflict of interest does exist, in the sense that the underwriting bank is able to utilize the superior information it obtains through its affiliation with the firm. Yet, the effects of the conflict of interest are fully discounted, as they are fully anticipated by all market participants. In this regard, Gorton and Schmidt find that initial public offering underwritten for a firm by its affiliated investment bank performs as well or better than issues of firms in which no investment bank holds a prior equity position.

Furthermore, conflicts can be restricted by legal constraints such as disclosure requirements for the issuance and distribution of securities or separation of some activities in subsidiaries. Since IFSP can offer more gains in informationally weaker economies, the best balance between self-regulation and government restrictions cannot easily be identified and will vary by institutional characteristics of each economy.

### **7.3.3 Safety nets**

With IFSP, both the possibilities of risk diversification and the scope to increase and shift risks are greater, raising the probability of bank failure (Saunders 1994 and Boyd, Chang and Smith 1998). However, there is no evidence that broad or universal banks fail more frequently than specialized banks (White, 1986), while combining financial activities reduces overall risks.

As banks evolve into large financial conglomerates, more safeguards are needed to avoid the transfer of deposit insurance subsidies from banking to securities and other parts of conglomerates (Kane, 1996). These safeguards can take the form of timely monitoring and disclosure, more risk-sensitive capital requirements, firewalls between different type of operations, risk-based pricing of deposit insurance and prompt corrective actions, including the closure of insolvent banks.

#### *1. Monitoring and Supervision:*

The combination of insurance, securities and commercial banking activities can make supervision by regulators and monitoring by the market more difficult as the insurance and securities businesses might have an impact on the banking business while the two activities can not easily be monitored separately.

IFSP can lead to more risks related to the difficulty for supervisory agencies to monitor, particularly when they do not coordinate closely. At the same time, when IFSP leads to closer cooperation among regulators, including possibly the merging

of supervisory activities in one single supervisory authority, gains may arise from combining financial services activities (Claessens 2002).

The G-10 Report (2001) has concluded that the potential effects of consolidation on the risk of individual institutions are mixed; the net result is impossible to generalize, and thus a case by case assessment is required. A workout or wind-down of an impaired large and complex banking organization could be difficult and disorderly and may lead to too much access to the safety net. Also, ever larger institutions may become “too big to discipline” or “too big to disappear.”

## *2. Competition, innovation and economic concentration:*

An IFSP-based financial system may lead to greater market concentration and reduce competition. Meanwhile, the separation of commercial and investment banking was claimed to foster competition and lead to more innovation (Boot and Thakor, 1997). However, innovation in providing integrated financial services may be stifled by separation. Intuitively, a separate system can be more innovative in the design of specific financial products and an integrated system can be more innovative in the overall production and marketing of financial services. Combining financial services may be useful in countries undertaking financial and especially insurance and social security reform in exploiting the know-how from banking to find solutions for social security problems. Allowing banks to expand into insurance and pension activities may also be a quicker way to build up those segments of the finance industry where these are absent. It is therefore reasonable to argue that IFSP leads to as much innovation as under separation.

Empirical evidence is mixed. A study of the German universal banking system in the pre-World War I found that the combining commercial and investment banking did not influence concentration, levels of market power, or financial performance of banks (Fohlin 2000a). In addition, universal banking was at worst found to be neutral to competition and perhaps beneficial.

Carow (2001) finds that removing barriers to entry by banks into the insurance industry reduced the market value of the insurance industry, while keeping the value of banks unchanged, implying that entry of banks increased competition in the insurance industry and made it more contestable.

With respect to the alleged concentration and abuse of power motivated the separation of banking activities in the U.S. during the 1930s, recent studies (Kroszner and Rajan, 1994 and 1997, Benston 1994) suggest that there was not much abuse and that the securities activities of commercial banks bore little responsibility for the banking problems of the Great Depression. Some other

studies have actually argued that universal banking can help overall economic development.

### 3. Cross-country empirical studies:

Barth, Caprio and Levine (2001a) study the relationship of banking powers with the following measures: (i) the level of banking sector development, (ii) net interest margins, (iii) the overhead costs, (iv) non-performing loans, and (v) the occurrence of a banking crisis. They find restricting commercial bank activities to be negatively associated with bank performance, measures (i) through (iv), as compared to when banks can diversify into other financial activities, especially securities markets activities. They also find that countries with greater regulatory restrictions on banks' securities activities have a substantially higher probability of suffering a major banking crisis. Finally, they find "no improvements in bank performance or stability from restrictions on bank activities in economies that offer more generous deposit insurance, have weak official supervision, suffer from ineffective incentives for private monitoring or that lack stringent capital standards."

Their results on the benefits of less restriction on banking activities in terms of financial sector efficiency are confirmed by Demirgüç-Kunt, Laeven and Levine (2002), who suggest that banks can produce financial services at lower costs when they are more able to fully exploit their economies of scope.

Beck, Demirgüç-Kunt and Maksimovic (2002a) find that more restrictions on the scope of commercial banking activities increase the negative impact of a concentrated banking system on the financing constraints for small firms. In another study (2002b), they find that in countries with fewer restrictions, firms are more likely to issue equity, lowering firms leverage and involving a wider pool of investors, thereby reducing riskiness, and finally improving resource allocation through better monitoring.

Barth *et al.* (2001a) find that more restrictive regimes often arise due to political economy factors. Government integrity is lower (corruption is higher) in countries which restrict banks' activities more as well as where governments play larger roles in the financial sector.

Cetorelli and Gambera (2001) show that banking concentration promotes the growth of the industries that depend heavily on external finance and reduces overall economic growth. Demirgüç-Kunt, Laeven and Levine (2002) find that bank concentration has a negative and significant effect on the efficiency of the banking system, except in rich countries with liberalized economies and developed financial systems. Since countries that restrict less tend to have more concentration, there might be a tradeoff in allowing a wider scope of bank activities between

financial stability and access on one hand and growth and efficiency on the other hand.

In summary, the cross-country studies find either that there is little relationship between regulatory restrictions on banking powers and overall financial development and industrial competition, or that restrictions hinder banking system performance and access to financial services by firms. Cross-country studies are quite clear in identifying that restrictions increase the risk of a financial crisis. As such, studies suggest that no restrictions on bank activities may be the most preferred. There are some benefits of banking concentration, balanced with some negative impact on efficiency and growth. Since fewer restrictions on bank activities can lead to more concentration, it will be important to balance relaxing restrictions with lowering barriers to entry.

### **7.3.4 The corporate structure of banking organizations**

The discussion so far has not considered the organization model permitted for universal banking. The realization of potential benefits and the degree to which any costs associated with universal banking depend on the organizational model permitted for integrated banking. The organizational structure may matter as well for financial development and performance and bank stability. We can identify three organizational models for banking organization.

#### *1. The Integrated Banking Model:*

In this model banks locate the securities unit in a separate department. Resources can be shared among various departments with maximum flexibility, allowing the bank to fully realize informational advantages and economies of scope and scale, with maximum ability to diversify sources of revenue. At the same time, safeguards for limiting conflicts of interest and extending the safety net are limited (Santos 1998a and 1999; Saunders 1994).

#### *2. The Bank-Parent Company Model:*

In this model, a subsidiary of the bank carries out the securities business. Integration of the bank and the securities activities can only be achieved partially and the potential for economies of scope is thus reduced. Risk diversification and the potential for higher revenues through cross selling of financial services is maintained. The potential for conflict of interest and extension of the safety net is reduced, provided regulations requiring firewalls between bank and subsidiaries and prescribing arms-length transactions are in place.

### *3. The Holding Company Model:*

A holding company owns two legally separate subsidiaries: the bank and the securities firm, each independently capitalized and incorporated offering its own products and keeps its own management team, accounting records and capital. This generally limits the exchange of information, personnel or other inputs among the various units, thus reducing economies of scale and scope and the bank's ability to exploit informational advantages synergies. Risk diversification potential is limited as revenues generated by securities activities accrue to that unit and then to the holding company.

The holding company can act as a source of financial strength to the bank subsidiary. The potential for conflicts is reduced and the extension of the safety net may be limited (Santos 1998a).

### **7.3.5 Financial conglomerates in emerging markets**

Banks tend to be more important in developing countries (Demirgüç-Kunt and Levine, 2001). On average, the size of the banking system in low-income countries is double that of stock markets. They are characterized by reliance on informal finance, with lending exercised through a network of social relationships and peer-group monitoring. Formal financial intermediation is often accelerated with major developments in the economy.

In spite of greater restrictions on banks' activities and less importance of securities markets, IFSP, including close bank-commerce links, are quite prevalent in emerging markets, perhaps more than in many developed countries (Claessens, 2002).

Benefits of universal banking for emerging markets have been scrutinized by studies made on its role in the late 1800s and early 1900s in Europe, the US and Japan as the circumstances of those countries then resembled many emerging markets today (Brainard 1991). The conditions in transition economies made universal banking more attractive, allowing banks to engage in a variety of financial activities and to own shares in enterprises, thereby making good use of banks' informational advantages, which were at a premium in the high-risk, limited information environment of many transition economies. Universal banks also played a big role in enterprise restructuring, where they were needed as coordinating agencies and to concentrate scarce financial resources. Most transition economies in fact opted for some type of universal banking model. Similar arguments for IFSP apply to many other emerging markets today where information asymmetries are high; skills are limited and in need of concentration, and some coordination needs exist in terms of large projects.

IFSP still has its risks in emerging markets. Given the generally weak regulation and supervision, substantial cross-holdings between banks, investment and pension funds and enterprises in many emerging markets could lead to systematic abuse of conflicts of interests. Exposure guidelines, disclosure standards and other measures addressing conflicts of interest or risk need to be strictly enforced. If banking and insurance activities were allowed to combine, there could be greater risks from too much concentration in the financial sector (Claessens, 2002).

While regulation can mitigate risks, there are limits to supervision, especially in emerging markets where enforcement of supervision is limited. Better supervision is often unfeasible due to human skills shortages and low pay. In the absence of checks and balances, greater supervisory powers can be counterproductive (Barth et al., 2001a). However, experiences suggest that risks associated with financial conglomerates usually come from excessive role of government and lack of competition. Claessens (2002) call for differentiated approaches through which the scope of banking is widened as the institutional framework is strengthened and financial markets develop.

In conclusion, IFSP can lead to gains for the financial sector, firm and economy in the form of a greater supply of better quality financial services, reduced financial intermediation costs and lower risks. IFSP may, however, lead to risks. It can increase opportunities for conflicts of interest and risk-taking behavior by financial institutions at the ultimate cost of taxpayers through publicly provided financial safety nets. It can make financial institutions too complex to monitor by markets and supervisors, reduce competition and financial conglomerates politically too important to close or ignore. Such risks do impose specific demands on financial sector regulation and supervision.

For emerging markets, the available evidence suggests that the gains from IFSP outweigh the risks, possibly even more so as human resources are scarce, information asymmetries greater and coordination needs still significant. Key requirements to maximize the gains are effective competition in an open and contestable financial systems, and strict enforcement of key measures to prevent leakage from any publicly provided safety net.

## **8. OTHER DOUBTS ABOUT UNIVERSAL BANKING**

The following doubts, in relation to universal banks' ability to deal with moral hazard and adverse selection, have been levied against universal banking:

### **8.1 Alteration of Corporate Capital Structure in favor of Debt and Against Equity**

Universal banks are seen as institutions that facilitate access to information about firms. German universal banks are described as financial supermarkets providing commercial banking, securities underwriting, and brokerage, holding positions on the supervisory boards of joint-stock companies, voting equity shares in proxy for customers, and sometimes taking short-term stakes in companies (Fohlin, 2000b). Theoretically, the presence of universal banking and the resulting bank attachments with corporations, could therefore give some firms more access to external finance thereby motivating them to change their preferences regarding debt finance.

Fohlin (2000b) found that, universal banking is not associated with different leverage nor debt maturity structure. While older firms continue to have lower leverage and short-term debt, bank attachment is not associated with earlier than average reductions in leverage as firms mature or with alterations in the predictors of short-term debt use. The findings offer little support for the idea that formal bank-firm relationships altered the financing options or choices of German industrial firms.

### **8.2 Universal Banking Inefficiently Combines Banking with Trade**

Barth, Caprio and Levine's (2001a) empirical study highlights the negative implications of imposing regulatory restrictions on the activities of commercial banks. Specifically, regulations that restrict the ability of banks to (a) engage in securities activities and (b) own non-financial firms are closely associated with greater banking sector instability. Their analyses, moreover, suggest no countervailing positive benefits from restricting the mixing of banking and commerce or from restricting the activities of banks in the areas of investment banking, insurance, and real estate.

### **8.3 The Organ Bank Hypothesis**

Universal banking opens the door to banks to establish special relationships with the companies in which they hold stock and finance simultaneously. Such relationship could reflect negatively on the efficiency and stability of the banking system. This "Organ Bank Hypothesis" was advanced first by the Japanese economist T. Kato and tested recently by Okazaki and Yokoyama (2001). They have found that in prewar Japan that interlocking directorship and auditing between banks and non-banking companies to be very pervasive and more so in large size banks. They also found that interlocking had negative influence on banks liquidity performance and profitability which played a roll in increasing bank closures during the Showa Financial Crises of 1927.

In contrast, when studying the German universal banking system in the pre-World War I period, in comparison with the banking system prevailing in the UK and the US, Fohlin (2000a) finds a different perspective. Her results indicate that universality does not lead to appreciable market power. They imply that concentration in the German banking industry does not in itself produce anti-competitive behavior.

We can therefore conclude that other reasons may explain the Japanese case, and the Organ Bank Hypothesis is by no means generally valid.

#### **8.4 Corporate Governance**

The fact that universal banks sit on boards of firms they finance and have power that may exceed what would be commensurate with their own equity holdings could create problems of corporate governance. First, to internalize the privileges usually accorded to board members, universal banks management would tend to appoint representatives to boards from within the narrowest circle of top management. Sooner or later, the few members of top management find themselves overloaded with the job of monitoring the performance of too many banks. That would make monitoring much less effective.

Second, members of universal banks top management may not have the necessary knowledge and skills to exercise monitoring effectively. Third, as they are top management members, their reporting on the board meetings they attend may turn to be too brief and non-technical for technicians whose job is limited to desk-type follow-up to draw the right conclusions at the right time.

All the above problems would be easily avoided by regulations and supervision. Simple rules setting the proper qualifications of banks representatives on the boards, putting a ceiling on the number of board membership and perhaps prohibiting top management from taking board membership outside their banks would certainly ameliorate the situation.

### **9. SUMMARY AND CONCLUSIONS**

#### **9.1 A Perspective from Banking Theory**

Banking theory explains the presence of universal banking as part of intermediaries' optimal strategic response to two opposing effects: the limitation placed by competition on their ability extract *informational rents* from borrowers, and the threat of adverse selection caused by informational monopoly.

In a world of asymmetric information, a bank can be exposed to *moral hazard* and *adverse selection*. With universal banking, a bank provides equity and debt

finance simultaneously, having more access to information and reducing the risk of adverse selection.

Equity finance provides universal banks with access to information necessary to become more effective monitors than transactional banks. By sitting on the firms' board of directors, they could influence the corporate governance of the whole productive sector leading to improvements in economic performance.

Empirically, universal banks were found to face lower risks than commercial banks during both upturns and downturns, and the risk differential between universal and commercial banks gets wider and more significant during downturns. They were also found to influence firms' attitudes towards multi-period optimization. Besides, the profitability of firms with bilateral bank relationships is found to be higher than that of firms with multilateral relationships.

There is a general impression that banking is being gradually replaced by financial markets, or what is termed to be *disintermediation*. However, empirical studies have failed to build up a case for the existence of disintermediation even in the UK and the US, while banking business is not declining in Germany and Japan. The main conclusion is that capital market services promote and support the functioning of banking services rather than compete with them, i.e., banking and capital markets activities are becoming increasingly complementary.

## 9.2 Universal Banking and Growth

Schumpeter (1912) suggested that bankers, through their selection and funding of entrepreneurs, promote innovative activity and spur economic growth. Gerschenkron claimed that banks facilitated growth among developing countries. In endogenous growth models with intermediation, the financial system affects productivity growth through four channels: screening prospective entrepreneurs, mobilizing capital to fund investments, diversifying investors' portfolios to eliminate risk, and revealing the potential benefits of productivity-enhancing activities. Others add three more channels: liquidity transformation, debt restructuring, and the feedback role of financial markets. Still others find that qualitative development in the banking sector to be significantly and positively related to economic growth.

Studies have confirmed that financial development generally leads to economic growth; financial deepening propels economic growth through faster capital accumulation and productivity growth and contributes more in developing than in industrial countries. In addition, bank efficiency has been found to increase real growth, confirming a Schumpeterian channel.

As to universal banking, there is evidence that debt and equity act more as complements to each other. The cost of pure debt and pure equity finance rise with the level of development. At some point, lenders find it optimal to complement the use of debt with the use of equity as a double-edged strategy for dealing with a double (rather than single) moral hazard problem.

In surveying the European experience, in the last half of the nineteenth century, Germany was found to have suffered from relative shortage of capital and entrepreneurship. Universal banks were viewed as the institutions that performed the capital-supplying functions and substituted for entrepreneurial deficiencies.

German universal banks with large networks of branches were credited with mobilizing capital, screening potential entrepreneurs, promoting and re-organizing industries, participating in the formulation of investment and production strategies, monitoring the progress of clients' investments, arranging and enforcing propitious industrial combinations, and diversifying away risks. Long-term relationships between banks and industrial firms were central to the acquisition and transfer of useful financial, strategic and entrepreneurial information.

Universal banking activities and accompanying formalized bank-firm relationships were credited with raising the quantity, quality and efficiency of investment in the last half of the nineteenth and the start of the twentieth century.

### 9.3 The Big-Push Model and Catch-Up Economy

Da Rin and Hellmann (2002) develop a new theory of the role of banks in promoting industrialization in emerging economies, starting from a "big push" model where there are two *Pareto-rankable equilibria*. A bank can induce the economy to move from the low to the high equilibrium, by mobilizing a "*critical mass*" of firms. Banks will only play a catalytic role if they are sufficiently large to invest in a critical mass of firms and have enough market power to recoup their costs. The costs of mobilizing the critical mass are reduced if banks are allowed to own equity through which they can have a share in the value they create. This means that universal banks will find it easier to promote investments in new industries. Catalytic banks have one particular disadvantage: banking concentration may foster industrial concentration.

Da Rin and Hellmann then move to analyze the role of banks in remedying coordination failure. They start with a group of small investors with a competitive fringe which can finance exactly one entrepreneur each and a lead investor who can always finance the rest of the entrepreneurs. When the financial market is perfectly competitive, the leader disappears and the lending rate equals the deposit rate. When the fringe disappears, the leader becomes a monopolist.

Da Rin and Hellmann show that in the case of competitive financial markets, with no lead investor but only a competitive fringe, there exist two *Pareto-rankable* competitive equilibria, the Emerging Market Equilibrium, EME where all entrepreneurs invest and the *Status Quo*, Equilibrium SQE where no entrepreneur invests. The existence of multiple equilibria is tantamount to a *coordination failure*. The elimination of the SQE would automatically solve the coordination problem.

Banks would be potential candidate for coordination. First, the availability of external finance directly influences entrepreneurs' decisions to set up firms. Second, funds provided by banks are essential input for most firms. Moreover, banks interact with many entrepreneurs and thus have a unique opportunity to induce coordination. Finally, they have a financial self-interest in the emergence of new markets.

In order to act as a catalyst, an investor needs to be *large enough* to mobilize a critical mass of entrepreneurs, as well as possess *enough market power* to make profits on the other entrepreneurs who start new firms, so as to recoup the cost of coordination.

When the leader finances entrepreneurs with equity, he participates in the profits obtained in the EME, thereby internalizing partially the externality that is at the root of the coordination problem. This reduces the cost of subsidizing entrepreneurs in the critical mass and makes coordination easier. The decrease in the coordination cost also means that the competitive fringe can be larger.

With heterogeneous firms the leader may choose the critical mass strategically. Therefore, there may be more than one critical mass and more than one target equilibrium. With debt contracts the leader always makes losses on *all* entrepreneurs in the critical mass. This implies that there is always a cost of coordination. Meanwhile, the use of equity reduces and sometimes even eliminates the cost of coordination.

Banks start with financing *pioneers* in their own industries. Then, they continue to finance incumbents. Even if financial sector growth is good for the economy at large, the lead bank will mostly fend off any additional competition from the fringe banks. As a consequence, the lead bank has an incentive to somewhat retard the development of the financial sector.

#### **9.4 Integrated Financial Services Provision (IFSP)**

Many countries have deregulated their financial systems over the past two decades. *Integrated Financial Services Provision (IFSP)* or *integrated banking* is becoming the norm around the world, with many countries having today no or very

few restrictions on the ability of banks to offer, besides commercial banking services, securities, asset management or insurance services.

Most analytical and empirical work to date finds IFSP to be beneficial for economies and firms as it enhances the efficiency of the financial sector, widens access to financial services and reduces financial-sector specific and overall economic volatility. The available evidence for emerging markets suggests important static and dynamic gains particularly in developing non-bank financial services such as pension and insurance services.

IFSP comes with certain risks, most importantly conflicts of interest, increased financial risks and greater difficulty in monitoring IFSP institutions and the effects on competition and concentration of economic power.

Conflicts of interest are plentiful even in specialized financial institutions. The possibilities for conflicts of interest increase in principle when financial institutions are allowed to offer a wider array of products and have a broad set of customers, as in IFSP.

Conflicts are often identified as one of the major potential cost of permitting commercial banks to conduct securities business. Empirical studies for the German universal banking system found no evidence of systematic abuse of conflicts of interest in the use of proxy votes. In the pre-Glass-Steagall era in the US, it has generally also been found that broad or universal banks did not systematically abuse their powers

When the pricing of debt securities underwritten by subsidiaries of US commercial-bank holding companies relative to those underwritten by investment houses is examined, no evidence is found of conflicts of interest in bank underwriting to repay existing bank debt. In addition, bank underwriting is on the whole beneficial for the smaller firms. Tests for the conflict-of-interest hypothesis between German banks during the 1970s and 1980s found no evidence of the conflict of interest concerning the use of proxy votes.

Even when potential conflict of interest existed in the issuance of public securities underwritten by an investment bank that holds equity in the concerned firm, as in the case of a universal bank, it is fully discounted, as it is fully anticipated by all market participants.

Cross-country studies find either that there is little relationship between regulatory restrictions on banking powers and overall financial development and industrial competition, or that restrictions hinder banking system performance and access to financial services by firms. Cross-country studies are quite clear in identifying that restrictions increase the risk of a financial crisis. As such, studies

suggest that no restrictions on bank activities may be the most preferred. There are some benefits of banking concentration, balanced with some negative impact on efficiency and growth. Since fewer restrictions on bank activities can lead to more concentration, it will be important to balance relaxing restrictions with lowering barriers to entry.

## 9.5 Conclusions

In conclusion we can say that both banking and growth theory supports the practice of universal banking in developing countries. As previously mentioned, universal banking is just one of the components of Islamic banking. Having such a support, both theoretically and empirically, universal banking becomes a real asset to Islamic finance. It is therefore recommended that Islamic banks pay more attention to incorporating universal banking in their practice. Undoubtedly, monetary authorities must accept the important link between Islamic and universal banking. Regulations and supervisions must be properly adjusted to allow as well as to insure that Islamic banks act as universal banks.

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