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**Deutsche Bank and the United States:
From International to Transnational Finance¹**

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For future historians, the salient fact of the twentieth-century finance will be the sharp erosion of banker power – that is, the dwindling role of financial intermediaries.
Ron Chernow, *The Death of the Banker* (1997), p. xii.

The purpose of this presentation is to trace some of the key developments of Deutsche Bank's over 130-year-long history with American markets in order to draw or reinforce some observations about 21st century financial architecture, specifically about the roles played by financial intermediaries in cross-border finance. Although it implicitly deals with transatlantic intellectual, regulatory, and financial exchanges, especially those between the United States and Germany, it is comparative across periods, not countries.

My contribution will explore several questions. How could banks like Deutsche Bank circa 1900 successfully engage in substantial amounts of international investment banking with neither a branch nor a subsidiary in the world's largest and fastest growing economy, despite that economy's weak regulatory environment? Today, in a world with seemingly limitless access to information – permitting a great deal of disintermediation and reduction in physical presence in many sectors – why do many commercial banks seem compelled to become multi-poled, international matrix organizations (transnational institutions)? Whereas in 1900 huge amounts of cross-border transfers and investment were arranged, monitored and even distributed by private (mostly family) banks and funneled through correspondent

¹ This paper profited from many useful comments by Mira Wilkins, Louise Guenther, Patrick Gougeon, Michael Tröge, and Martin Mueller. It was presented in April 2008 at Columbia University's School of International Affairs as part of a workshop on Transatlantic Financial and Intellectual Exchanges.

networks, today huge joint-stock companies dominate international finance. By operating branches and subsidiaries in key markets with highly automated systems for trading foreign exchange and other products as well as for applying modern risk management, and by maintaining cross-border teams for deal making and distribution of securities, these giant public banks have incurred huge new fixed expenditures. By doing so, though, they have internalized activities that were once performed by individuals and institutions in large part legally independent of one another. The story of this transition is a complex mixture of technological, economic, and political changes, with a little path dependency for good measure.

The ideas that will be presented here are not only part of my recent research into the history of Deutsche Bank, but also part of other work on private (family) banking, the theory of financial firms' foreign investment, and several articles with Jeff Fear on comparative corporate governance in Germany and the United States.

In general, I hope to show that the above quote by Ron Chernow misconstrues the real change in banker power during the 20th century. Although certain kinds of intermediary banking functions and actors – for example, the active management of firms and family banks (the banking dynasties that are Chernow's main focus) – have been largely superseded by other mechanisms and institutions in our world, banking and bankers have shifted into other activities, which may indeed give them more economic clout, but about which we may still be woefully ignorant.

Specifically, I will argue that regulatory changes along with changes in the real economy through much of the 20th century – probably most rapidly in the past 40 years – have reshaped the distribution and innovation of financial securities (as well as the disappearance of other instruments), leading to a kind of “snowball effect.” These developments have pushed firms like Deutsche Bank to do more foreign direct investment in large capital market

centers, increasing their fixed, up-front investment and the managerial complexity of doing business compared with their activities in the 19th century. This investment and added-managerial capacity in turn produces an economic incentive to expand activities further to diversify by products and by region in order to reduce the costs of delivering complex services.

In general these developments have occurred in a financial environment that has become increasingly denationalized, that is, one in which many of the most important financial transactions and actors are outside of any national jurisdiction. Along with a reduction on controls over the movements of funds, governments have abdicated to markets and private institutions responsibility for preserving certain kinds of macroeconomic stability and reduction of risk. This environment produces incentives for private institutions to replace governmental and supra-governmental agencies, to act as market makers and market linkages. In addition to the loss of national regulatory control, modern transfer methods and the foreign direct investment of many of their sophisticated customers have linked national economies in new ways and robbed commercial banks of some of their “bread and butter” business such as letters of credit.

Financial regulations in the United States and some other countries, moreover, have led to the grouping of investment in intermediaries – such as highly regulated pension and mutual funds – under statutory pressure and with economic incentives to optimize returns with lots of relatively small and often short-term investments on a worldwide scale. They seek to find “special opportunities” and effective diversification, not to manage these investments.² Spearheaded by political decisions in the world’s largest capital market, the

² See Mark Roe, *Strong Managers, Weak Shareholders* (Princeton: Princeton University Press, 1993) for an extensive study of the development of American corporate governance from active management by strong shareholder representatives to financial intermediaries forced by law to limit their holdings of individual assets. Investment funds existed in the 19th century. Deutsche Bank itself tried to organize one for American securities (original purpose of the Treuhand), before the bottom fell out of American capital markets in 1893. It also set up several syndicates for investment outside of Germany, but unlike modern American mutual and pension funds,

United States, much of capital market control and corporate governance responsibility has been shifted away from banks (underwriters) to government agencies, accounting firms, “transparent” accounting systems, and rating agencies. Even those institutions with national roots, however, are obliged to provide their governance services across national borders. Although companies all over the world have had to deal with disgruntled shareholders and managers are under pressure to take more personal responsibility for their decisions, under the influence of global equity investors, institutions for the active management of firms by shareholders and governments have been increasingly replaced by so-called market mechanisms and a “buyer-beware” approach to governance. Moreover, national regulations, or perhaps more accurately the lack thereof, have led to the creation of new sources of liquidity (“offshore deposits”) and intermediaries (for example, hedge funds) that are largely independent of national controls, facilitating the quick movement among different asset classes and geographic regions, but which are often administered in money-market centers.

As with many economic sectors, these developments have encouraged financial firms to become transnational, that is, to become highly coordinated (but not centralized) multinationals that internalize many international activities by “crossing borders” rather than by connecting nations.³ When knowledgeable clients and market participants can react with the “speed of light” to market movements and opportunities, institutions like Deutsche Bank understandably believe that a close connection to market developments and key actors will hone their ability to rapidly innovate and distribute products, essential elements in remaining competitive and profitable in the highly competitive yet lucrative world of investment banking and trading. Although joint-stock banks are more present in important markets,

they did not operate with strict rules for diversification. As late as 1980, only 5% of pension assets were foreign. In 2000, international securities were estimated to account for 15% of all pension assets. Thirty-percent of all U.K. pension assets are in foreign securities. According to some estimates, the placing of new securities relies greatly on close contact with 200-300 pension funds, mostly located in the United States and Great Britain. Risto Laulajainen, *Financial Geography: A Banker's View* (London: Routledge, 2003), p. 52.

³ Christos N. Pitelis and Roger Sugden, “On the Theory of the Transnational Firm,” in Christos N. Pitelis and Roger Sugden, eds. *The Nature of the Transnational Firm* (London: Routledge, 1991), p.14.

investors rely less now than 100 years ago on active management of specific risk, and more on public information and statistical analysis of variances and co-variances among assets. High trading volumes, “standardization” of products (sometimes just perceived), lower transaction costs, tax-driven placements, as well as increased availability of data, computer power, and financial risk-management techniques all contribute to the reliance on diversification and arbitrage as investment strategies to balance risk and reward. The application of many of these techniques and the maximization of reward-risk relationship require a seamless exchange of information and funds as well as an ability to make markets for exotic and at times highly illiquid instruments. Management of risk in this manner requires highly sophisticated systems and trading volumes, which have in turn contributed to investing further in internalization of cross-border banking and to increasing pressure to insure a steady stream of new products and distribution. Seen in this light, transnational institutions tend to reinforce the transnational rather than international character of finance.

Put into Chandlerian terms, the effective use of investment in management and production of new products (financial instruments), which raise fixed costs, must be coupled with a steady marketing of those products to major end-users in order to achieve high and even volumes. Once management capacity has been created, financial institutions, like their manufacturing and distribution counterparts, are obliged to diversify and grow to optimize the value of their investment.

I will also suggest that current and historical statistics about the amount of foreign direct investment and intracompany (intercompany in finance books) sales do not adequately reflect differences between the Gold Standard Era and our own form of globalization. The degree to which firms like Deutsche Bank are run as integrated, cross-border firms is not clear from comparative international business statistics. It must be drawn from individual case histories. Recent technology and regulatory changes have made the sharing of standardized

procedures, information, funds, intermediary and final products, as well as human resources much easier. Like investors and manufacturing firms, financial intermediaries are expected by their clients to offer integrated international services, drawing on talent, funds, and even legal entities from all over the world, which allow for the passage of services around the world that even in the recent past would only have been possible at one site. In short, my story tries to go beyond the amounts and forms (portfolio and FDI) of foreign investment, but rather to show how institutions have adapted and shaped cross-border exchanges.

Deutsche Bank and the changing configuration of international finance

Deutsche Bank's over 130-year long experience with American business must be seen against the backdrop of three distinctive regimes for cross-border banking and investment. (For the purposes of this paper, I have divided them as follows: 1870-1914; 1914-1971, and post 1971.) The general political and economic macroeconomic configuration of each period understandably had many parallels in private relationships. It is not just a question of the size of cross-border flows of finance and information but how they are done compared with the 19th century. Although we have a good general sense of the changes in macroeconomic regimes and the overall patterns of foreign direct investment, we know less about how they shaped firms' specific international strategies and structures.⁴

For the forty years preceding the 'Great War,' voluntary linkages among nations and financial institutions provided the main mode of international banking. Although the system was not as automatic and frictionless as some believed, governments in much of Europe and North America committed themselves to macroeconomic environment stability. Despite several shocks, they were relatively successful fulfilling this mandate. Inflation was low,

⁴ Geoffrey Jones, *Multinationals and Global Capitalism: From the Nineteenth to the Twenty-first Century* (Oxford: Oxford University Press, 2005) p. 21. As Jones reports, foreign direct investment in 1913 equaled 9% of world output, after the turmoil of world wars and the unstable interwar period reached 4.4% in 1960, only to regain its 1914 vigor just after 1990. Estimates of FDI as a percentage of international investment in 1913 vary from 10 to 33%.

economic growth high, currencies convertible, and investment and trade flowed across borders to an unprecedented degree.⁵ But regulations of capital markets and for the issuance of shares by companies were rudimentary at best. Accounting information in most countries was scant and unreliable.⁶ Banks were called upon, or by default, to fill in control and information flows. They provided or stood in the wings ready to provide active management to facilitate trust.

In this environment, Deutsche Bank grew quickly and internationally, with relatively high and consistent profits. For most of this period and in several major markets, it worked through agents and correspondent banks for many kinds of international transactions. Its international reputation helped build its domestic business. From 1896 through 1914, when Germans made over Mark 20 billion of foreign portfolio investments (5.1 billion to the North America alone), Deutsche Bank was considered Germany's premier international bank.⁷ It listed several American securities on the German stock exchange, invested in such important American companies as Edison General Electric (one of the forerunner companies to GE), formed several different syndicates for investing in American securities, and played an active role in the restructuring of one of America's largest railroads, the Northern Pacific. By the late 1880s, nearly 40% of its capital was invested in the United States. By 1914, while it owned and marketed in Germany and other countries, alone or in syndicates of individuals and other financial institutions, the securities of many important U.S. companies – in whose management it sometimes took an active part. Much like modern investment banks, however,

⁵ For the linkages among countries for foreign investment, especially between the United States and Germany, see Mira Wilkins, "Foreign Banks and Foreign Investment in the United States," Richard Tilly, "International Aspects of German Banking," and Vincent P. Carosso and Richard Sylla, "U.S. Banks in International Finance," all in *International Banking, 1870-1914*, eds. Rondo Cameron and V.I. Bovykin (Oxford: Oxford University Press, 1991). For general comments about the nature and extent of globalization and the functioning of the Gold Standard see Harold James, *The End of Globalization: Lessons from the Great Depression* (Cambridge, MA.: Harvard University Press, 2001) and *The Gold Standard in Theory and History*, eds. Barry Eichengreen and Marc Flandreau. (London: Routledge, 1985).

⁶ Jeff Fear and Christopher Kobrak, "Diverging Paths: Accounting for Corporate Governance in America and Germany," *Business History Review*, Vol. 80 (2006), pp. 1-48.

⁷ Tilly, p.96. This amount represented approximately 40% of German GDP in 1914. Portfolio investment is generally defined as a foreign investment without the presumption of control of the asset.

its stakes for its own account tended to be much lower than in the late 1880s. Although there were many cross-border flows between Germany and the United States (mostly German funds to the United States), those movements were performed in the context of German and American national regulation. Deutsche Bank's main competitive advantage in international investment lay in its reputation for finding and stewarding securities, as well as its knowledge of German listing requirements and its distribution capacity in that country.

To be sure, this strategy was by no means perfect, even in the pre-1914 environment. There were many setbacks and crises, and perhaps even a huge opportunity cost by not having more of a presence in the United States, but the bank achieved substantial results with U.S. securities, with no employees there, just agents and a few close relationships with American banks whose costs to Deutsche Bank were for the most part variable rather than fixed.⁸

From 1914 to 1971, the developed economies suffered intermittently from war, inflation, steep and long economic downturns, unstable foreign exchange rates, and blocked funds. Periodically, countries "submitted" to the control of supranational agencies, at first, for example, the Bank of International Settlements, and later the World Bank and International Monetary Fund. Predictably these agencies were successful only when national political and economic circumstances encouraged cooperation. When they didn't, national priorities trumped international ones. Predictably, the framework for Deutsche Bank's U.S. business as well as general international business fluctuated between no business at all and coercion "cooperation." For a short time in the mid-1920s, Deutsche Bank served as an intermediary for bringing American investment into Germany. It even raised equity capital for itself on American markets. By the 1930s, however, economic circumstances were so bleak that only some "shady" transactions could save some of those securities launched in the United States from default. Before World War II, returns to shareholders were volatile and small, especially

⁸ Christopher Kobrak, *Banking on Global Markets: Deutsche Bank and the United States, 1870 to the Present* (Cambridge: Cambridge University Press, 2007), pp. 1-164.

considering the risks and blocked profits. In the immediate aftermath of World War II, the bank was in danger of complete dismemberment by American occupation authorities. Rebuilding international business relied on trade facilities, some of which had to be sponsored by government authorities. (For approximately a decade Deutsche Bank actually operated as three separate banks.) By the time the bank was reconstituted as a single entity in 1957, international cooperation with the goals and under the institutions of Bretton Woods was at its post-World War II high point. Enjoying the benefits Germany's Economic Miracle and strong German exports, by the 1960s, the bank began again to engage in some cross-border finance and even some foreign direct investment, but the playing field was starting to change very rapidly.

Already in the mid-1960s, cross-border investment and the size of foreign exchange movements threatened the ability of governments to preserve the Bretton Woods system.⁹ Without the discipline of the pre-World War I era, and faced with a choice between convertibility and stability, since 1971 governments in the developed world have by and large opted for convertibility of foreign exchange and free movement of capital. This has led to greater investor needs to define and hedge risks – what some have called the privatization of foreign exchange and other risks – as well as to a host of new players attempting to take financial advantage of instability and market segmentation. In addition to private international brokers, many of banks' most important customers became giant multinational corporations, capable of internalizing transactions once performed by separate legal entities. Managing foreign exchange exposures, intracompany payments (netting), cash positions and short-term borrowing for foreign subsidiaries (pooling centers), cross-border pricing and logistics (re invoicing centers), insurance, long-term financing and other financial issues has been increasingly coordinated or just performed centrally. These commercial institutions and

⁹ See, James, *The End of Globalization*, and Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System* (Princeton: Princeton University Press, 1996)

other financial players expect their banks to provide useful information and financial innovation, make a market for their trading in foreign exchange and other products, and offer all sorts of financing globally. Even governments demand these services, which increasingly are done outside of their control, internally by huge intermediaries, which provide platforms for international financial dealings. By the 21st century, there were at least ten banks with assets greater than one trillion dollars.¹⁰

To many of these developments in capital markets, Deutsche Bank's ability to respond effectively was hampered in some sense by history. Its early international success was built on a model of separate countries, with good regulation, and separate institutions, run by responsible financial experts in their own markets, who shared a common culture and common desire to exchange information and capital. This model was less applicable in the new financial world of the last decades of the 20th century. Added to this were the residue of political conflicts – the losses suffered after World War I and II, the perception of political risk, and Germany's first divided and then united status.¹¹ In the post-Bretton Woods period, Deutsche Bank struggled to keep up with some trends in capital markets and intermediaries spearheaded by Anglophone institutions. It had difficulty establishing critical mass in key markets and segments, such as the United States and in the lucrative areas of equity and derivative trading. With its acquisition of Bankers Trust and other steps around 2000, Deutsche Bank has positioned itself to be an integrated investment bank (something like the model universal bank forbidden for a while by U.S. regulations), one that is able to marshal huge amounts of international capital, launch new securities, advise clients about M&A and other financial engineering, trade securities and derivatives, innovate and share information in key capitals of finance.¹² In response to market and regulatory developments, it internalized

¹⁰ *The Banker*, July 2005.

¹¹ Christopher Kobrak and Jana Wüstenhagen, "The Politics of Globalization: Deutsche Bank, German Property and Political Risk in the United States After World War II," *Enterprise et Histoire*, 2007, No. 49, pp. 53-77.

¹² Kobrak, *Banking on Global Markets*, pp. 166-302.

cross-border flows of information in business units managed globally, and offered to create and deal in products once transacted through separate institutions and markets.

Foreign Direct Investment Statistics and Intrafirm business.

Although foreign direct investment today barely exceeds as a percentage of world product that of 1914, the raw data masks some qualitative difference in investment, which is true of financial as well as other sectors. It ignores how diverse and interconnected international operations of multinationals (MNCs) have become, as well as changes in portfolio investment. Because our data about MNCs before World War I is less complete, to understand the changing structure and importance of multinationals some anecdotal information is helpful. Of the 50 largest economies in the world, 17 are corporations. Many of the 100 largest corporations in the world not only have over half of their sales, as was the case for several German and American companies even before World War II, but also half of their assets and half of their employees are also outside of the country in which they are incorporated.

Two companies on which I have done detailed work shed light on the changes. In 1913, Deutsche Bank had only a three foreign branches (London, Brussels, and Constantinople) and two subsidiaries for foreign ventures, one partially, the other wholly owned. About 10% of its employees worked outside Germany.¹³ As mentioned, in the United States, the world's largest economy, its interests were handled by a representative and correspondent banks. Before 1913, few Deutsche Bank employees visited the United States (approximately four visits by top management, four by middle management). There were no foreign members of its management board. Today, seven members of its 11-person executive committee are non-German. Many of the bank's top executives are still stationed outside of the country in which

¹³ E-mail, Bernd Kulla, Deutsche Bank Archive, March 20, 2008.

the bank is incorporated. Well over half of the bank's staff is outside of Germany and nearly half of its 1700 installations. The bank employs roughly 12,000 people in its Americas operation alone, working in approximately 600 legal entities.¹⁴

In 1900, Schering AG had no legal entities in the United States, despite significant sales from that and other foreign markets. Its affairs in the United States were represented by a separate legal entity headed by a nephew of the company's founder.¹⁵ Just before its merger with Bayer, Schering had two-thirds of its employees outside of Germany and approximately half of its R & D expenditures outside of Europe.¹⁶ Although there are a few companies that maintained relatively well integrated foreign subsidiaries before World War I (Siemens, Singer, and Standard Oil come to mind) and our information is limited, the experiences of Deutsche Bank and Schering AG, I contend, are much more indicative of the transitions of large companies from international business to transnational firms than the experiences of Siemens, Singer, and Standard Oil were before World War I. In short, multinationals in the 21st century tend to be run as one worldwide concern, not splintered as domestic and international ones.¹⁷

Foreign direct investment by banks is a relative latecomer and less is known about the cross-border management of financial firms. Before the late 1950s, most European and American banks' foreign direct investment was toward colonies, former colonies, and countries with which European nations and America had a quasi-colonial relationship. Before 1914, both Japanese and American banks had very limited foreign operations. As late as 1925, American banks operated just over 100 foreign branches, mostly in Latin America. Even during the late 1950s, only seven American banks had overseas operations while foreign

¹⁴ Kobrak, *Banking on Global Markets*, p. 365..

¹⁵ Christopher Kobrak, *National Cultures and International Competition: The Experience of Schering AG, 1850-1950* (Cambridge: Cambridge University Press, 2002).

¹⁶ Schering AG, 2004 Annual Report.

¹⁷ Mira Wilkins, *The Emergence of Multinational Enterprises: American Business Abroad from the Colonial Era to 1914* (Cambridge, MA.: Harvard University Press, 1973) pp. 212-213. In 1914, operating foreign subsidiaries was still relatively rare for American companies.

banks had virtually no business in the United States.¹⁸ Although we know that services have climbed from 30% of FDI to 50% since 1913, we have little data about the flows of services within firms. The data about intrafirm trade is mostly about manufacturing firms. From 1970 to 2000, intrafirm trade seems to have grown from 20 to 40% of world trade, but this tells us little about the banking sector's exchange of information and financial flows.¹⁹ The data is about intrafirm trade is just that goods and services, not, for example, about intracompany foreign exchange and derivatives trading, and loans. We have far less data about flows of capital in general and exchanges among financial firms.

By 2000, commercial banks had created a huge network of branches and subsidiaries all over the world. Most developed countries had accepted that foreign banks could do outside of their own country whatever they did inside. In the United States alone, foreign banks operate 300 branches – that is, entities that are not legally or financially distinct from their parents – and nearly 100 subsidiaries, mostly for making wholesale rather than retail loans. From 1975 to 2000, total assets by foreign banks grew in the United States from approximately \$50 billion in 1975 to \$1.2 trillion in 2000, which accounted for approximately 20% of all banking assets in the United States.²⁰ In 2000 after its acquisition of Bankers Trust, Deutsche Bank, by some measures the largest bank in the world, headed the list of foreign banks in the United States with nearly \$113 billion in assets.²¹

During the last few decades of the 20th century, U.S. banks were among the most aggressive in foreign investment. From 1975 to 2000, U.S. banks with foreign branches grew from 8 to 126, total branches alone for those U.S. banks from 131 to 762, while assets of

¹⁸ Jones, 114 and 135.

¹⁹ Jones, p. 40. A more recent study found that 43% of all U.S. exports were intrafirm transactions; 43% of all U.S. imports were intrafirm transactions by American or foreign-owned companies. Stephen D. Cohen, *Multinational Corporations and Foreign Direct Investment: Avoiding Simplicity, Embracing Complexity* (Oxford: Oxford University Press, 2007), pp. 210-211.

²⁰ Jane E. Hughes and Scott B. MacDonald, *International Banking* (New York: Addison Wesley, 2002), pp. 27, 90-101, 149. By the early 90s, 280 foreign banks from 65 countries with 1,000 offices operated in the United States.

²¹ Hughes and MacDonald, pp. 27, 90-101, 149.

foreign branches of U.S. banks climbed from \$3.5 to 176.5 billion. By 1996, U.S. banks held over \$1.1 trillion in assets in overseas branches and subsidiaries taken together. During the first half of 1999, for example, 8 of the top 20 issuers of West European corporate bonds were American banks, accounting for roughly the same percentage of the value of the bonds. Much of international banking remained centered in London, whose historical accumulation of know-how and technical skills as well as balanced regulation seem to be nearly as enticing in 2000 as in 1900. Circa 2000, nearly 520 foreign banks employing 72,000 people operated in London. These banks are particularly active in cross-border lending – loans to a borrower in a country other than the lenders or in a currency other than the lenders – an activity that doubled from 1988 to 1998, much of which was done on a syndicate basis, requiring banks to band together to reduce risk and marshal huge sums of money.²²

Capital Markets and financial management circa 2000.

Regulation and other factors have led to a reduced market share of banks as financial intermediaries. Although some of these developments arose out of efforts to escape American regulation and recent banking regulation have led to the creation of financial institutions more akin to German universal banks, for some observers they are part of the Americanization of business.²³ In the last decades of the 20th century, capital markets have been increasing large areas of economic activity, reducing the scope of straight bank financing. Whereas all banks accounted for 85% of financial activity by some in 1900, by 1992 that percentage had fallen

²² Jane E. Hughes and Scott B. MacDonald, *International Banking* (New York: Addison Wesley, 2002), pp. 27, 90-101, 149.

²³ See Harm G. Schröter, *Americanization of the European Economy: A Compact Survey of American Economic Influence in Europe since the 1880s* (Dordrecht: Springer, 2005) for an excellent survey of American influence in Europe. Although there is little about the specific recent influences in banking, much of what he writes about the more “cultural” influences of business practices certainly applies to financial services. There is no doubt that the style of global investment banking, for example, has been greatly affected by American practices. For a very good discussion of the flight of American banks from U.S. regulation see Richard Sylla, “United States Banks and Europe: Strategy and Attitudes,” in Stefano Battilossi and Youssef Cassis, eds. *European Banks and the American Challenge: Competition and Cooperation in International Banking Under Bretton Woods* (Oxford: Oxford University Press, 2002), pp. 53-73.

to less than 40%. The change is mainly due to easier access to capital markets and the arrival of new financial intermediaries, such as pension and mutual funds.²⁴ Separated from some of their traditional sources of funds and activities, resilient players have been able to replace some of their traditional activities by innovative new ones and by spreading out of their national markets to become global intermediaries, capable of interfacing with users and providers of funds all over the world. Like many commercial spheres of globalization, the process of spreading sophisticated banking services and the mobility of money and people have been accompanied paradoxically by an urban concentration in key markets, such as New York and London.²⁵

Securities markets rely on prices based to a large extent on public information and competitive interplay by self-interested, well-informed actors. Since the 1930s, and perhaps before, investment banks have tended to commit less of their own capital to fund clients. For fees, they create a network of investors who trust the bank to serve as a financial intermediary, quickly disseminating the appropriate levels of public and private information, a kind of market within a market or as some call it an “information market.”²⁶ They create an environment for information production. They advise clients about lowering financial costs, using their balance sheets to expand, and about the use of derivative instruments. During the past few decades, with the breakdown in the separation of financial services, many institutions not only make loans but also take deposits as a source of funding for new and old securities issuances. Not only have regulations created a new opportunity for traditional banks and other institutions to recombine old “universal banking services” (the “Germanization” of finance) those institutions also have added some new ones, such as hedge fund management.

²⁴ Meir Kohn, *Financial Institutions and Markets* (New York: McGraw-Hill, 1994), p. 202.

²⁵ Saskia Sassen, *Globalization and its Discontents: Essays on the New Mobility of People and Money* (New York: New Press, 1998), pp. IXX-XXXVI. For an excellent discussion of how standardization and increased power of diffusion have led to the concentration of economic power in these centers and the weakening of political power. See also Youssef Cassis, *Capitals of Capital: A History of International Finance Centres, 1780-2005* (Cambridge: Cambridge University Press, 2006) for the role of financial centers in history .

²⁶ Alan D. Morrison and William J. Wilhelm, Jr., *Investment Banking: Institutions, Politics, and Law* (Oxford: Oxford University Press, 2007) p. 5

Moreover, given their asset base and knowledge of primary and secondary securities markets, it is understandable that the banks are active traders.

The banks' willingness to buy and sell securities gives investors added security that their positions will be more liquid, when they want to get rid of them. But actual trading has become a cross-border enterprise. From 1983 to 1993 cross-border transactions in U.S. treasuries went from \$30 to \$500 billion. Sales and purchases of bonds and equities between foreigners and U.S. residents went from roughly 10% of U.S. GDP to 135%. During the same period, in Britain they jumped from virtually nothing to 1000% of GDP.²⁷

These statistics are reflected in the increase of portfolio investment. Although estimates of FDI by some measures grew from 8.3% of world output in 1913 to 11.3% in 1999, portfolio investment has grown even faster, from 18- 25 to 40-57%%. These figures do not include the fastest growing segment of capital markets, derivatives trading. **(Also portfolio investment does not include short-term (less than one year) securities.)** During the last decade, despite the huge increase in FDI, growth in portfolio investment outstripped more long-term, stable investment.²⁸ With the United States running a nearly one-trillion dollar per year current account deficit, these increases are likely to continue into the future to funnel funds held by exporters into U.S. and U.K. capital markets, a scary parallel to the recycling of funds in the 1920s and 1970s. Although some theorists see integrated, multinational banks as providing an additional service of diversifying investors among regions and financial sectors, thereby reducing risk, others worry that they add to the risk by making cross-border flows too simple and therefore too volatile.

With this as a backdrop, it is probably no accident that cross-border bank mergers and other forms of direct investment have picked up in the last 20 years. The most active modern investment banks have reassumed a broad range of activities and have internationalized them,

²⁷ John Eatwell and Lance Taylor, *Global Finance at Risk: The Case for International Regulation* (New York: New Press, 2000), p. 4.

²⁸ Jones, Martin Wolf, *Why Globalization Works* (Yale: Yale University Press, 2004), p. 113.

effectively internalizing what were cross-border, cross-firm exchanges. Greater increases in market activity and lowering of transaction costs have led to greater investments to handle them, which in turn put pressure on participants for more activity to lower unit costs. The required infrastructure and investment has climbed a good deal since Deutsche Bank ran one of the largest banks in the world in 1914 with a considerable “international reach” with fewer employees than it now has in New York alone. Although computer power per dollar of investment has increased enormously over the past 20 years, demands on financial institutions to electronically manage information have led to great increases in digital investment. The cost of controlling all of this is significant. Although some international organizations have tried to get a handle on the risks of modern finance, most observers believe that their efforts are always a step behind the innovative machines of money markets.²⁹ To their credit, most large banks have recognized their own interests in getting a grip on the risk-reward relationships of their products, especially financially innovative new ones. Creating and implementing these systems, however, requires investment in computing and people power, and an ability to carefully evaluate new products and activities.³⁰

Three numbers from 1913 and 1999 are helpful to illustrate the relationship of investment, cost and market power. Although Deutsche Bank, like many German banks, helped control companies and capital markets, even performing many market functions internally in 1913, it now performs these market functions on a much greater international scale. The numbers are Deutsche Bank’s net income, total assets, and the size of German GDP. For 1913, they were Mark 68.3 million, 2.3 billion, and 48 billion respectively. In 2004, net income, assets, and GDP were Euro 2.5 billion, 840 billion, and 1.5 trillion respectively. Consider the following

²⁹ Shelagh Hefferman, *Modern Banking in Theory and Practice* (New York: Wiley and Sons, 1996), pp. 217-267 and Joseph Stiglitz, *Making Globalization Work: The Next Steps to Global Justice* (New York: Allen Lane, 2006).

³⁰ Bankers Trust, which Deutsche Bank bought in 1998, was considered the market leader in this kind of analysis. See Gene D. Guill, “Bankers Trust and the Birth of Modern Risk Management,” Case Study, Wharton Financial Institutions Center, 2008.

ratios for 1913 and 2004: Net income to assets was down approximately from 3% to 0.3% respectively. While Germany's largest bank held assets that amounted to approximately 5% of the German economy in 1913, by the same measure, they represent 50% of the German economy in 2004.³¹ Costs and investment may be climbing even faster than opportunities.

Investment and other banks are under increasing pressures to handle greater operating scale and more financial capital over a larger area. For example, New York Stock Exchange average daily trading volume has gone up from less than five million shares in 1960 to over 1.4 billion in 2000. The daily volume of foreign exchange trading hovers around \$2.0 trillion, approximately 85% of which is done by market makers, primarily large banks. Total derivatives trading was approximately 35 times greater in 2000 than in 1988; 90% of the total \$109 trillion in transactions are OTC (Over-the-counter private transactions), mainly banks, not organized exchanges.³² (Like foreign exchange trading, a great many of these transactions are not driven by commercial transactions but rather are arbitrage-related.) International securities offerings grew from virtually nothing to \$1.2 trillion in 1983 dollars. Moreover, international M&A activity grew from virtually nothing in 1980 to \$2.0 trillion in 1998, during the same period, an amount two-thirds larger than the most active market for domestic M&A, the United States.³³ Through much of the 1990s, by some measures, banking and other finance firms themselves were the most active targets and acquirers in M&A deals.³⁴

No wonder! The incentives and pressures to acquire greater scale and scope are enormous. The large fees earned by investment banks are legendary, but competition and expenditures are growing quickly too. While the advising, underwriting and trading revenue (once the highest component of revenues) of the top 10 investment banks as a percentage of capitalization have all dropped as a percentage of investment bank capitalization since 1980,

³¹ Adapted from Deutsche Bank's annual reports, 1913 and 2004, and Wikipedia.

³² Morrison and Wilhelm, p. 10.

³³ Morrison and Wilhelm, p. 2.

³⁴ Patrick A. Gaughan, *Mergers, Acquisitions, and Corporate Restructurings* (New York: John Wiley and Sons, 1999), p. 48.

trading revenue in 2000 was nearly half of advisory revenue and nearly five times that of underwriting revenue. Employment in investment banking has increased dramatically since 1979 (by some measures fourfold), but increases in capital formation have been even more pronounced. Since 1990, they have climbed by a factor of six. Mean capitalization per employee for the five largest investment banks has grown from \$200,000 in 1990 to approximately \$1,000,000 in 2000. Revenue income per producing employee for the same period jumped \$0.4 to \$1.0.³⁵ In the last decade of the 20th century, market capitalizations of equity as a percentage of GDP doubled in Germany (to 60%) and tripled in the United States (160%).³⁶ Much of that new investment in Germany and the United States came from foreign sources, especially institutional investors. Debt markets and the size of international debt offerings have grown enormously in the past 40 years (total outstanding debt issues stood at \$21 trillion in 2002³⁷), but at the same time investment bank commissions as a percentage of large issues have declined greatly from 1970 to 2000, from 6% to 4% for new equity, and even more dramatically for debt – in which Deutsche Bank traditionally excelled – from 1% to .5% of proceeds. From 1982 to 2004, eurocurrency loans (offshore borrowing) has climbed from \$1.0 trillion in 1982 to \$9.9 trillion in 2004. New international bonds went from \$82 billion to \$1.6 trillion during the same period.³⁸

In conclusion, the explosion of trading volumes, new instruments, new sources of funding, international investment, and the need for high-speed distribution of financial products and for the acquiring and dissemination of information have had several consequences. On the one hand, they have created new opportunities for “universal banks” that prepared to respond to them. One of those responses has been to internalize much of their cross-border activities. By adding fixed costs, they can lower their unit costs at certain

³⁵ Morrison and Wilhelm, pp.8-15. Nearly one-quarter of the total.

³⁶ Alan D. Morrison and William J. Wilhelm, Jr., *Investment Banking: Institutions, Politics, and Law* (Oxford: Oxford University Press, 2007) P. 2

³⁷ Moorad Choudhry, *Corporate Bonds and Structured Financial Products* (London: Elsevier, 2004), p. 8.

³⁸ Cassis, p. 256.

levels of activity. On the other hand, investment banks have entered a demanding cycle of ever-increasing expenditures in managing information and a presence in important securities markets to acquire capital and talent than ever before, in order to keep up with competition and declining marginal returns. They are under pressure to get more out of each component of profit generation. Returns on capital invested are declining while capital requirements are increasing. While dependence in one sense in human capital has declined, banks have had to squeeze out more revenue per employee hired. All of these developments have had a hand in shifting investment banking from an activity dominated by private firms to one dominated by large, integrated public firms. As late as the 1960s, at least six of the largest ten underwriters of U.S. equities were private firms. Despite the importance of “reputational capital” in investment banking, by 2003, not one was.³⁹

What is still unclear, however, is whether the perception that internalization across national borders on the scale we have seen still brings economic and social value. To be sure, the economic incentives to create transnational firms are great. We also have these firms to thank for a good deal of our international connections, and economic prosperity and freedom, and for the liquidity and efficiency of capital markets. But as R. H. Coase, the economist credited with highlighting cost reduction as an explanation of large companies moving from market to internal exchanges, pointed out that there may be diminishing returns to internalization as firms grow due to increasing organization costs, which are difficult for economists and managers to see. He is also credited with being one of the first economists to emphasize the potential social costs of business, those costs to society that are not included in a firm’s accounts.⁴⁰ As some firms become too big too fail or perhaps to control, the issues of

³⁹ Morrison and Wilhelm, pp. 15-21. It should be noted that all of the firms that actually disappeared were absorbed by larger firms.

⁴⁰ R. H. Coase, *The Firm, The Market and the Law* (Chicago: University of Chicago Press, 1988)

moral hazard and political control are fair ones to raise.⁴¹ No one who knows me in this room would accuse me of being a Marxist, but the growth in the size and power of these institutions coupled with their struggles to cope with reduced profitability would not have surprised the “Sage of Trier.”

⁴¹ Hughes and MacDonald, pp. 156-157. I heard a number a few days ago that I have not yet verified: the notional amount of outstanding derivatives is \$450 trillion compared with a world GP of \$50 trillion. It reminded me of a case that I use to teach in international finance about the treasurer of Air Liquide who did so much swap trading (a form of derivative) that he lost track of his positions and the purpose behind the trades. We might all wonder whether the case is a microcosm for the whole financial system.