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From International to Transnational Finance: The New Face of Global Capital Markets[1]

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Abstract:
Most discussions of globalization and multinationals do not address specifically how changes in financial markets and banking have helped differentiate our era's globalization from previous ones. Given the turmoil in capital markets, this lacuna in the literature is particularly odd. Insofar as the effect of the growth of multinational financial conglomerates on the financial system is discussed in technical and more general financial literature, it is generally focused on the internalization of international sources of funding and its impact on bank and market liquidity.

This paper focuses on two distinct literatures. The first deals with the theory of multinationals, especially foreign direct investment in the financial sector. The second attempts to explain and respond to the current financial crisis. Many commentators have asked why so many economists failed to foresee the current financial crisis and we argue that part of the explanation lies in that discipline's failure to understand institutions and, by implication, the evolution of those institutions.

We highlight how the development of international banking has helped reconfigure international relations and markets. We do this from a broad historical perspective. Indeed, we will emphasize that the development of multinational financial conglomerates have transformed finance from an international to a supranational activity. In effect, multinational banks have created an institutional platform, which has virtually eliminated national borders in finance and reduced the importance of individual public, national markets. 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 internalized many cross-border and domestic financial activities that were once done among independent entities and in public markets. This transformation may have resulted in increased inefficiencies and reduced transaction costs, but it also entails huge upfront expenditures and greater risk. The story of this transition is a complex mixture of technological, economic, and political changes, with a little path dependency thrown in for good measure.

Introduction

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.

Few discussions of our modern world fail to include some references to globalization and multinationals. Nevertheless, most do not address specifically how changes in financial markets and banking have helped differentiate our era's globalization from previous ones. Given the turmoil in capital markets, this lacuna in the literature is particularly odd. Insofar as the effect of the growth of multinational financial conglomerates on the financial system is discussed in technical and more general financial literature, it is generally focused on the internalization of international sources of funding and its impact on bank and market liquidity or on its impact on entire national banking systems, especially those in emerging markets.[2]

Although banks have come under considerable attack for what is perceived as greedy sales of poorly understood products or just inadequate risk management, recognition of a startling new role played by banks has begun to creep into the public consciousness. Many large banks have built up their balance sheets in part to provide "trading platforms" for hedge funds and other investors, whose servicing needs not only require credit lines but also the warehousing of derivative and other financial instruments, ostensibly for greater liquidity and greater ability to build offsetting positions. This sort of "shadow banking" – or shadow market making – has contributed greatly to counterparty risk and the profusion of ever more precise derivative instruments that defy regulatory oversight. As one financial journal put it, "[T]he emergence of so-called dark pools of liquidity – trading venues where huge blocks of

[2] See Murillo Campello, "Internal Capital Markets in Financial Conglomerates: Evidence from Small Bank Responses to Monetary Policy," *The Journal of Finance*, Vol. 77, No. 6, December 2002. Campello found that larger banks are able to relax their credit constraints by their diverse sources of funds. In "Banking Globalization, Monetary Transmission, and the Lending Channel," Nicola Cetorelli and Linda S. Goldberg found that multinational banks' ability to access their domestic and foreign operations' sources of funding to smooth liquidity shocks. Working Paper. June 4, 2008. For the impact on emerging markets see Fariborz Moshirian, "Financial services in an increasingly integrated global financial market," *Journal of Banking and Finance*, 32 (2008), pp. 2288-2292 and Neeltje Van Horen, "Foreign banking in developing countries; origin matters, *Emerging Market Review*, 8 (2007), pp. 81-105.

equity trades are made out of the public gaze – has been a threat."[3] Under relentless pressure to accommodate traders, many exchanges have tried to help clients access these pools. The pools offer the prospect of more financial liquidity, but they also operate without extensive regulatory oversight and clearing controls.

This paper is designed to focus on two distinct literatures. One deals with the theory of multinationals, especially foreign direct investment in the financial sector. The second attempts to explain the current financial crisis. Although distinct, these two literatures involve overlapping questions about the costs and benefits of multinational financial activities, and perhaps similar omissions about a huge sea change in the nature of financial intermediation. Many commentators have asked why so many economists failed to foresee the current financial crisis. This paper posits that part of the explanation for policy failures lies in economists' insufficient understanding of and interest in the functioning of modern financial institutions and, by implication, the evolution of those institutions.

We will highlight how the development of international banking has helped reconfigure international relations and markets. We do this from a broader and more historical perspective. Indeed, we will emphasize how the development of multinational financial conglomerates helped transform finance from an international to a supranational activity. In effect, multinational banks have created an institutional platform which has virtually eliminated the effect of national borders to finance and reduced the importance of national public markets. 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 banks have incurred huge new fixed expenditures.

[3] *Financial Times*, June 24, 2008, p. 39.

This paper will address the management-financial and public policy conundrums resulting from the banks' reshaping of the risk-reward relationship of financial intermediation. Its focal point is the somewhat paradoxical and relatively new internalization of cross-border transactions that has revolutionized international financial intermediation while adding complexity and removing a great deal of transparency. 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 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 networks, today huge joint-stock companies dominate international finance.[4] These megabanks have internalized activities that were once performed by individuals and institutions in large part legally independent of one another, or of public markets. Nearly all of these new mega-institutions are public companies which – with greater capacity for internalization of transactions provided by new regulation and technology – are better placed than separate institutions, especially those conducting business on public markets, to keep their transactions off the radar screens of regulators. The story of this transition is a complex mixture of technological, economic and political changes, with a little path dependency thrown in for good measure.

These megabanks pose many broad and interrelated issues for the global economy. They entail management problems over a huge geographic area and among very disparate, complicated businesses. They have not only been beset by pure fraud, they also seem at times to have lost control of even legal transactions, many of whose valuation can no longer

[4] Christopher Kobrak, "Family Finance: Value Creation and the democratization of cross-border governance," *Enterprise and Society*, March 2009.

rely on easily acquired market quotations. Conflicts of interest can easily arise between dealmakers and management, with no ready mechanism for adjudication. Working across many national borders with integrated affiliates has intensified potential cultural conflicts. As financial institutions lose much of their own national character, regulators have had a difficult time defining the span of their authority. Not only is much of international business conducted in self-regulated offshore (Euro) markets, many institutions conduct all or most of their activities outside the jurisdictions in which they are incorporated. Along these lines, the very size of these institutions raises questions about how effective a counterweight regulators can be. Many institutions control complex assets and transactions that dwarf the size of the national economies in which they are ostensibly based, posing system risk. They are, therefore, deemed by many too big to fail, adding additional moral hazard to a system already fraught with hazards.

Although it has long been argued that firms grow and internationalize as the costs and benefits of internalizing market transactions become more favorable for the diversified, hierarchical firm, this reasoning has rarely been applied to financial services, or perhaps more importantly, to the regulatory causes and consequences of bringing certain transactions into the firm.[5] Whereas manufacturing firms usually diversify into new aspects of the value chain

[5] The idea that cross-border investment and internalization has economic benefits has been with us for a relatively long time, but its specific significance for financial institutions is less studied. Some theorists contend that the gains for manufacturing apply to services, while others contend that it is difficult to generalize across sectors. For the seminal work on internalization see R.H. Coase, “The Nature of the Firm,” *Economica*, 1937, Vol. IV, no. 4. In the work of those who followed Coase or introduced new approaches to explaining internalization and foreign investment, there is little discussion of whether finance indeed should be treated as a special case apart from manufacturing, for example, and whether financial internalization pose special risks. See Oliver E. Williamson, *The Economic Institutions of Capitalism* (New York: Free Press, 1985), Edith Penrose, *The Theory of the Growth of the Firm* (Oxford: Oxford University Press, 1959), J. H. Dunning, “Multinational enterprises and the growth of services: some conceptual and theoretical issues,” *Service Industry Journal*, 1989, Vol. 9, pp. 5-39, and Christos N. Pitelis and Roger Sugden, eds., *The Transnational Firm* (London: Routledge, 1991). One of the few exceptions to this tendency is Geoffrey Jones, ed. *Multinational and International Banking* (Aldershot: Elgar, 1992), which includes several essays that develop a distinct view of multinational banking, many reprinted from other sources. See especially chapters by H.G. Grubel, Robert Aliber, and Manijeh Sabi, who were among the first scholars to define some separate financial service patterns. Interestingly, *The Oxford Handbook of International Business*, ed. Alan Rugman (Oxford: Oxford University Press, 2009) hardly addresses financial services. As will be discussed, apart from studies of financial cross-border mergers the particular significance of transnational banking has only begun to be addressed.

without conflict with formal, regulated markets, banks and other financial institutions d*o.*[6] The banking evolution over the past 50 years was a complex process that at once was allowed by regulation and which continues to help shape regulation: an international, dialectic process that since World War II has included the explosion of offshore banking, derivatives trading, the steady erosion of Glass-Steagall limits on banks acting as investors (holding securities) and lenders, and the exemption of many financial transactions from securities exchange scrutiny. It is a regulatory and institutional story whose costs and benefits, for institutions and society at large, are insufficiently understood. Although even cost savings are sometimes hard to prove, perhaps more importantly, the risks of internalization are almost never treated until the system implodes or nearly implodes.

In a sense, the institutions we intend to discuss are a throw-back to early forms of banking. They are like the universal banks – banks that are both retail and wholesale institutions, which take deposits, handle trust accounts, hold and trade securities, perform investment banking services, and make normal loans – which played a great role in Germany's economic system, and are also like the family banking structures that in some sense internalized public markets and intra-company transactions up to the middle of the 20th century. They differ in some salient points, which we hope to develop here. These include a diminished sense of social and system-preservation responsibility, a larger international reach, and a propensity to deal in enormously complex financial instruments without any organized, public market. All three are products of our current financial architecture, which contributes both to the system's stability and liquidity, and, paradoxically, at times, to exactly the opposite conditions.

The limited degree to which knowledge of the new configuration of these transnational banks has contributed to the current crisis and a reappraisal of economic theory

[6] Such diversification does pose anti-trust issues though.

is well illustrated by a recent *Economist* article. Although a few economists have talked about the effect of megabanks on risk management and financial transactions, most discussion about improving the current situation is bogged down in old debates about Keynesian or Monetarist solutions.[7] If the institutions become focal points, it often is in connection with variable based compensation, critics of the market or capital adequacy, rather than how we have allowed huge amounts of finance to be conducted outside of markets while releasing banks from their traditional role as responsible, engaged overseers.

In general, we 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. We have passed to a new era of intermediation, which includes huge incentives to produce many new and complex transactions – permitted or even encouraged by regulation – on a global scale, while governments alone or in concert allocate far too few resources to oversee new products and types of exchanges whose ability to spread and mutate staggers the mind of even well-informed specialists.

Along with a reduction in 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 or supra-governmental agencies, and 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

[7] " What went wrong with economics," *The Economist*, July 18, 2009, pp. 11-12.

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.[8] Spearheaded by political decisions in the world's largest capital market, the 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 sometimes more accurately the lack thereof – have led to the creation at various times during the past 50 years of new sources of liquidity (for example, offshore deposits) and intermediaries (for example, hedge funds) that are largely

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[8] 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 Germany, but unlike modern American mutual and pension funds 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. 30% 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.

independent of national controls, facilitating quick movement among different asset classes and geographic regions, but which are often administered in money-market centers. From 1996 to 2006, hedge fund assets alone grew from $130 billion to $1.5 trillion. During roughly the same period, private equity investments grew from $59 to $364 billion.[9] U.S. regulation in particular encouraged the growth of new institutions for collecting savings whose statutes encourage a wide breadth of investing and little long-term commitment to companies. By 2005, pension funds and mutual funds accounted for 121% and 79% of U.S. GDP. While most countries rely less on pension and mutual funds as investment vehicles, the world average was 35% and 37%. 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.[10]

When knowledgeable clients and market participants can react with the speed of light to market movements and opportunities, institutions like Citigroup and 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, 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

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[9] Ismail Erturk, et al., eds. *Financialization at Work* (London : Routledge, 2008), pp. 5-12.
[10] 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.

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.[11]

We will also suggest that current and historical statistics about the amount of foreign direct investment and intra-company (intercompany in finance books) sales as well as consolidation accounting do not adequately reflect differences between the Gold Standard Era and our own form of globalization. The degree to which firms like Citigroup and Deutsche Bank, for example, are run as integrated, cross-border firms is not clear from comparative international business statistics. It must be drawn from individual case histories, but even these are tricky. 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 to use and harder for outsiders to observe. 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, our 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.

[11] 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.

The main body of the paper is divided into three sections. The first highlights the general growth of foreign direct investment and competitive pressures in the banking sector in the 20th century, but especially over the past 40 years. The second examines recent statistics about the growth of bank assets and liabilities, especially the international portions of bank activities and intra-bank flows. The last draws out some insights about international banking and changes in banks' structures from the annual reports of a few large banks.

The Evolution of Financial Service Products and FDI in the 20th 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.[12] For the forty years preceding the "Great War", voluntary linkages among nations and financial institutions provided the main mode of international banking. The Gold Standard, backed by the Bank of England and most member governments' commitment to foreign exchange convertibility and stability, effectively created one developed world currency and extraordinary long-term growth for much of the world. Although the system was not as automatic and frictionless as some believed, it seemed to avoid the risks that later gave rise to so many new financial instruments. Despite several shocks, the developed world was relatively successful fulfilling this mandate. Inflation was low, economic growth high, currencies convertible, and investment and trade flowed across borders to an unprecedented degree.[13] But regulation of capital markets and rules for the

[12] 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%.

[13] 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,

issuance of shares by companies were rudimentary at best. Accounting information in most countries was scant and unreliable.[14] 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.[15]

In this environment, many banks grew quickly and internationally, with relatively high and consistent profits. For most of this period and in several major markets, they worked through agents and correspondent banks for many kinds of international transactions. Banks built their international reputation out of their domestic business. From 1896 through 1914, Germans made over Mark 20 billion of foreign portfolio investments (5.1 billion to North America alone) and several German joint-stock banks did a lot of international business without a branch or a subsidiary in the world's largest economy.[16] Deutsche Bank for example**,** 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, 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

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MA.: Harvard University Press, 2001) and *The Gold Standard in Theory and History*, eds. Barry Eichengreen and Marc Flandreau.(London: Routledge, 1985).

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

[15] Jeff Fear and Christopher Kobrak, "Banks on Board," *Business History Review*, Forthcoming.

[16] 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.

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.[17] In the immediate aftermath of World War II, the bank was in danger of complete dismemberment by American occupation authorities. 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.[18] 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

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[17] Christopher Kobrak, *Banking on Global Markets: Deutsche Bank and the United States, 1870 to the Present* (Cambridge: Cambridge University Press, 2007), pp. 1-164.
[18] See, James, *The End of Globalization*, and Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System* (Princeton: Princeton University Press, 1996)

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, intra-company payments (netting), cash positions and short-term borrowing for foreign subsidiaries (pooling centers), cross-border pricing and logistics (reinvoicing centers), insurance, long-term financing and other financial issues has been increasingly coordinated or just performed centrally. These commercial institutions and 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 largely outside of public control on international trading platforms provided by huge, private intermediaries. By the 21st century, there were at least ten banks with assets greater than one trillion dollars.[19]

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. 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.

Before World War I, apart from London – the main world center for trade and other financing in the developed and developing world (then mostly colonies) – the world's major

[19] *The Banker*, July 2005.

banks had hardly any representation in other countries. The two largest banks in the world as measured by assets, Crédit Lyonais and Deutsche Bank, for example, did not have offices in each other's countries. 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.[20] 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 the bank is incorporated. Well over half of the bank's staff is based outside 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.[21]

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 banks had virtually no business in the United States.[22] 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 intra-firm trade is mostly about manufacturing firms. From

[20] E-mail, Bernd Kulla, Deutsche Bank Archive, March 20, 2008.
[21] Kobrak, *Banking on Global Markets, p.* 365.
[22] Jones, 114 and 135.

1970 to 2000, intra-firm 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.[23] The data about intra-firm exchanges focuses on goods and services, not, for example, intra-company foreign exchange, derivatives trading, and loans. We have far less data about flows of capital in general and exchanges among financial firms. The volatility and uncertainty during the dying days and final demise of Bretton Woods, witnessed a huge increase in international banking activity. Then, as now, banks followed the physical movement and needs of their clients, essentially trying to develop parallel structures within the framework of regulatory controls, which were usually more restrictive than those with which their clients had to deal.[24]

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 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

[23] 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.

[24] Crédit Lyonais 1972 Annual Report. All the banks that will be discussed in this paragraph were among the ten largest in the world as measured by assets.

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.[25] While North America and Europe have witnessed an enormous increase in financial activity by foreign entities in their jurisdiction, this involvement pales in comparison to emerging capitalist economies. Foreign-owned banks account, for example, for well over half of total banking assets in central Europe.[26]

But 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.[27] 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 in 1900, by some accounts and measures in 1992 that percentage had fallen 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.[28] 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 from their national markets to become global intermediaries, capable of interfacing with users and providers of funds all over the world.

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[25] Jane E. Hughes and Scott B. MacDonald, *International Banking* (New York: Addison Wesley, 2002), pp. 27, 90-101, 149.
[26] "The Next Crisis," *The Economist*, May 17, 2008, p. 25.
[27] 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 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.
[28] Meir Kohn, *Financial Institutions and Markets* (New York: McGraw-Hill, 1994), p. 202.

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.[29] Over the past 20 years banks in most major countries have moved increasingly away from traditional lending to other services. Although Germany – where the universal bank model has existed for much of the past 130 years – is rightly famous for providing many services to clients, during the past two decades, non-interest income as a percent of total bank income grew by 50% in the United States, 25% in the United Kingdom, and a startling 150% in France.[30]

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.[31] They create an environment for information production: advising 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 made loans but also took 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. Moreover, given their asset base and knowledge of primary and secondary securities markets, it is understandable that the banks are active traders.

[29] 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.
[30] Erturk, et al, p. 11.
[31] Alan D. Morrison and William J. Wilhelm, Jr., *Investment Banking: Institutions, Politics, and Law* (Oxford: Oxford University Press, 2007) p. 5

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.[32] But unlike trades on securities markets, those done by banks, especially of derivative securities, are outside of public scrutiny

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.[33] During the last decade, despite the huge increase in FDI, growth in portfolio investment outstripped more long-term stable investment.[34] 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 the pace of cross-border bank mergers and other forms of direct investment has picked up in the last 20 years. The most active modern investment banks have reassumed a broad range of activities and have internationalized them, effectively internalizing what were cross-border and cross-firm exchanges. Indeed, *The Economist* reported in 2006 that major banks were tripping over

[32] John Eatwell and Lance Taylor, *Global Finance at Risk: The Case for International Regulation* (New York: New Press, 2000), p. 4.
[33] It should be noted that portfolio investment does not include short-term (less than one year) securities.
[34] Jones, Martin Wolf, *Why Globalization Works* (Yale: Yale University Press, 2004), p. 113. 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.

themselves to increase their global reach and product offerings by acquisitions and other means.[35] 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 1914 when Deutsche Bank ran one of the largest banks in the world with considerable international reach employing fewer staff 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 financial sector devotes more of its sales revenue to information technology investment than most others.[36] 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.[37] 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.[38] Many scholars believe that the jury is still out about whether the recent waves of cross-border and other banking mergers create economic value, even on a regional basis.[39] Indeed, capital markets even before 2006 were skeptical about the overall value of investment banking earnings.[40]

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[35] "Thinking Big," *The Economist*, May 20, 2006, pp. 4-23.
[36] "From clipboards to keyboards," *The Economist*, May 19, 2007, pp. 68-69. Financial services spent 8% of revenues on IT, nearly four times retail, and almost 25% more than communications.
[37] 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.
[38] 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.
[39] See Eduardo Strachman, et al, "Worldwide Concentration in the Banking Sector: Causes and Potential Effects," *R. Econ. Contemp*, 6(1) pp. 25-58, 2002, Allen Berger, et al, "Globalization of Financial Institutions:

Three numbers from 1913 and 1999 are helpful to illustrate, at least anecdotally, 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 ratios for 1913 and 2004: net income to assets was down approximately from 3% to 0.3%. While Germany's largest bank held assets that amounted to approximately 5% of the German economy in 1913, by the same measure in 2004 this had risen to 50%.[41] 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. While London maintained its strength in foreign exchange and Chicago in commodities; equity, debt, commodity and foreign exchange markets grew much larger and more vibrant in many new centers such as Hong Kong, Singapore, Tokyo and Frankfurt. 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.

Whole new product categories developed. Total derivatives trading was approximately 35 times greater in 2000 than in 1988; by then, 90% of the total $109 trillion in

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Evidence from Cross-Border Banking Performance," Brookings-Wharton Papers on Financial Services, 2000. Rudi Vander Vennet, "Cross-border mergers in European banking and bank efficiency," Working Paper University of Gent, 2002 for discussions of the types of gains and risk derived from greater international expansion.

[40] "Wall Street v Wall Street," *The Economist*, July 1, 2006, pp. 69-70.

[41] Adapted from Deutsche Bank's annual reports, 1913 and 2004, and Wikipedia.

transactions are over-the-counter private transactions (OTCs), mainly banks, not organized exchanges.[42] Six years later, total derivatives trading had jumped by a factor of nearly five (just under an astronomical $500 trillion), with non-exchange contracts still accounting for the lion's share. Much of the growth came in interest rate contracts, but whole new segments like credit default swaps (CDS) sprung into existence. By 2008, just ten years after their invention, the notional value of CDS contracts measured approximately $60 trillion.[43] Like foreign exchange trading, a great many of these transactions are not driven by commercial transactions but rather are arbitrage-related.

Some activities based more on traditional investment banking functions grew rapidly, too. International securities offerings increased from virtually nothing in 1980 to $1.2 trillion in 1998. *(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.[44] Throughout much of the 1990s, by some measures, banking and other finance firms themselves were the most active targets and acquirers in M&A deals.[45]

No wonder! Although the investment needs were great, the individual and other incentives and pressures to acquire greater scale and scope for inventing, selling, and trading seemed, for some players, 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, trading revenue in 2000 was nearly half of

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[42] Morrison and Wilhelm, p. 10.
[43] Ismail Erturk, et al, pp. 4-9. See also Christopher Kobrak and Leigh Johnson, "Innovating Insurance: Captives, Exotic Insurance and the Current Crisis," Working Paper, Swiss Re Workshop on Insurance History, June 8, 2009.
[44] Morrison and Wilhelm, p. 2.
[45] Patrick A. Gaughan, *Mergers, Acquisitions, and Corporate Restructurings* (New York: John Wiley and Sons, 1999), p. 48.

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.[46] 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%).[47] 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 2002[48]), 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.

Other capital market changes – for example, the increasing importance of euro deposits – encouraged greater international banking investment. From 1982 to 2004, euro-currency 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.[49]

Perhaps no country's banks illustrate the degree to which international investment and internalization has affected financial fragility than Iceland's. But Iceland was not alone. Beginning in the 1990s, deregulation and privatization encouraged a frenzy of foreign direct investment. Icelandic banks developed access to relatively cheap foreign sources of funding,

[46] Morrison and Wilhelm, pp.8-15. Nearly one-quarter of the total.
[47] Alan D. Morrison and William J. Wilhelm, Jr., *Investment Banking: Institutions, Politics, and Law* (Oxford: Oxford University Press, 2007) P. 2
[48] Moorad Choudhry, *Corporate Bonds and Structured Financial Products* (London: Elsevier, 2004), p. 8.
[49] Cassis, p. 256.

much of which was short-term, and which fed a building boom and other domestic spending. The banks' many foreign affiliates helped funnel funds acquired on foreign interbank and money markets into Iceland. By 2008, shortly before the system's collapse, three major banks held an amount of foreign debt that was over five times the Iceland's Gross National Product.[50]

Follow the Money

In addition to the huge growth of the financial sector's role in modern economies over the past few decades, financial transactions are increasingly confined to transactions outside of public markets. Large transnational banks have effectively internalized many international capital flows, whose importance has grown with greater imbalances between savings and borrowing nations. The increase in areas with excess cash and their greater distance from cash users has led to an expanded role and need for intermediaries and risk management outside of capital markets, adding, however, many other risks and complexities. The greater relative size of financial transactions and new financial instruments coupled with a great ability of these banks to tap into one national source of funds and pass them on to users of capital in other nations has all contributed to a much more "frictionless" global financial system, with more rapid and more complex worldwide impact, than fifty years ago. Given new regulations and the multinational structure of these institutions, banks have even been able to use cheap sources of funds, including the discount window at a large number of central banks, and to distribute the funds to their international units, in many cases with foreign exchange and other risks. From 2000 to 2008, bank assets and liabilities grew at a startling rate. During the period, all countries' annual increase was approximately 30%. Several countries exceeded 40% per year. (See Graphs 21 and 22) Despite the added importance of

[50] Jon Danielsson, "The firs casualty of the crisis Iceland," Centre for Economic Policy Research, 1-5, (2008).

internal bank transactions to capital flows, banks play a diminished role in the management of the companies in which their and their clients' funds are invested. Some of these changes are best *seen in Bank of International financial statistics*, first assembled in the wake of the breakdown of the Bretton Woods system and the rapid growth of Euro (Offshore) banking. We have selected several countries for our graphical representation because of their importance to the current crisis and their contrasting experiences during the crisis. By comparing and contrasting their experiences we eventually hope to illustrate some key points.

Remarkably, even excluding the notional value of derivatives, funds held in trust, and off-balance sheet entities (as these figures from the BIS do), from the mid-1990s until 2005, international bank loans and deposits have grown at a startling rate. Much of the growth of cash under management by banks has come from a growth in deposits, but loan and deposit growth was widely dispersed among nations and regions. As indicated by Graphs 5, the average annual growth rate of cross-border (external) deposits and loans converted to dollars was over 30%. The pace was quicker for developed countries than developing ones. The dispersion among the selected countries was great. Not surprisingly, Iceland and the United Kingdom led the pack, with both witnessing 60% annual loan growth and over 100% in deposit growth. In both categories, they were followed by the United States (roughly 40% in each), and by France in loans (70%), Japan in deposits (40%). By March 2005, external bank loans and deposits amounted to approximately half of world output, with developed countries alone accounting for 80 % of loans and two thirds of the total external loans and deposits. Nearly three-quarters of the external loans and deposits were in Europe, with the United Kingdom taking one-third of both loans and deposits in that region. The second most popular origin and destination was the United States. Strikingly, the difference between the growth of loans and deposits was far greater in France, where loans grew at a rate nearly twice as fast as deposits, accounting for much of the European imbalance.

As seen from Graph 6, from December 1995 to March 2008, on an exchange rate adjusted basis (in local currency) the results were even more dramatic. While developed countries' growth in both external loans and deposits outstripped that in developing countries**,** loans in all countries doubled every year; those in developed countries by a factor of ten. In both dollar and local terms, the rates of growth remained for the most part high, but in some countries the growth rate turned negative. Moreover, the pace of growth varied greatly from year-to-year. (See Graphs 1-4)

For our point, most importantly, these increases in the last few years have been matched by a similar growth in internal cross-border financing. The international internalization of banking is even better seen in the activities of domestic affiliates of foreign banks, statistics that only recently the BIS began to track. For all countries, from June 2005 to March 2008, local claims of domestic banks foreign affiliates in all currencies grew by approximately 46 %. (Graph 7) As indicated by Graph 7, the growth rate of claims in host-country by affiliates of banks from developed home countries exceeded 40%, a little less than the rate for all countries, but far short of the 73% rate of developing countries. All the countries in our sample had growth rates in the foreign bank portion of domestic (host country) claims of around or exceeding 40%. Moreover, on an ultimate risk basis (including guarantees), the domestic claims of foreign banks' affiliates make up a huge percentage of total international claims (cross-border and domestic of foreign-owned entities). In March 2008 in the United States, for example, they amounted to 110% of total international claims excluding the guarantees. (Graph 12) As noted, for many years this aspect of global banking was off the radar screen or regulators.

Purely intra-bank activity is also a remarkable story and key for our argument. From 2000 to 2008, intra-bank assets grew in all countries by approximately 20% per annum**.** In Iceland and Australia, they grew by over 100% per year and the United Kingdom was not far

behind with 80%, followed by France, Germany and the United States with around 40, 20, and 20% respectively. (Graph 14) The story with liabilities is similar. (Graph 16) Interesting, too, is the role that they play in many countries' banking system. Graphs 17 and 18 tell this story but are a little hard to follow. They show intra-bank assets and liabilities as a percentage of total bank assets in our selected countries and in all countries from 2000 to 2008. While reliance on intra-bank funding has declined somewhat over that period (the total of 250% is not the worldwide total, just a measure of the tendency in the selected countries), in March 2008 for all countries it still amounted to 25% of all bank assets and liabilities. In the United States, Japan, Ireland, Germany, and Canada, intra-bank assets and liabilities were 20 to 40% of all bank assets and liabilities for all the years.

The Structure and Business of Major Banks in the First Decade of the Millennium

In this section, we discuss what information can be gleaned from the annual reports of some important supranational, megabanks. Although we have focused on just a few banks, the pattern of development is not identical but consistent over a wide range of institutions. Over the past thirty years, the structure and activities of money-market banks have become much more complicated, a fact that is amply illustrated by the increased size of their annual reports. But despite their added length, some key aspects of their structure and activities are not well documented. Nevertheless, this review shows their degree of internationalization and the degree to which they have created markets for complex instruments for which there is little or no public oversight.[51]

Although the rash of mergers makes specific comparison somewhat harder, as late as the mid-1970s, major European and American banks had little foreign direct investment, and little in the way of intra-bank and exotic transactions, at least compared with today. In 1968,

[51] To put bank activities into perspective some comparison with public markets is necessary. For example, nearly 90% of all derivative transactions were OTC, that is, private mostly bank transactions. Erturk, p. 7.

Chase Manhattan, for example, was one of the most internationally active banks, with overseas deposits accounting for approximately 15% of its total.[52] Despite operating many international branches and an extensive correspondent network, Chase's notes to its financial statement took up only one page in 1968. Chase's experience and structure were much like its chief competitors. From 1958 to 1968 Citigroup's overseas demand deposits (then First National City Bank) to third-parties (intra-company ones were eliminated in consolidation) grew fourfold. But banking and bank reporting was much similar. As late as 1988, the notes to Citigroup's financial statements were only three pages. There were no special vehicles or complicated assets and liabilities requiring reams of explanation. Approximately, two-thirds of its assets were in normal loans. Nevertheless, it operated in 65 countries, with 88 branches in Latin America alone, 40 in Europe, and even 53 in Africa.[53] Bank of America, for example, opened its first foreign branch in 1931. By 1960, it had 19; eight years later 86, but still a huge correspondent network through which much business was transacted. In that year, its borrowing was less than 5% of deposits, approximately 35% of book equity, and loans accounted for half of its assets.[54] In 1976, Société Général had just 24 subsidiaries and branches outside of France. Loans made up approximately half of its assets, a number that roughly equaled deposits.[55]

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

[52] Chase 1968 Annual Report, 75961, Crédit Agricole Archive.
[53] Citibank 1988 Annual Report, 75961, Crédit Agricole Archive.
[54] Bank of America Annual Reports, 1968 and 1988. 75961, Crédit Agricole Archive.
[55] Société Général, Annual Report 1976, 75961, Crédit Agricole Archive

approximately $50 billion in 1975 to $1.2 trillion in 2000, which by then accounted for approximately 20% of all banking assets in the United States.[56] 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.[57]

During the recent financial crisis, Citigroup has been one of the hardest hit institutions. In 2007, its business consisted of five business segments (Global Consumer; Markets including investment banking, trading, and trust services; Wealth Management, Alternative Investments such as hedge funds and private equity, and Other Corporate Services) spread over 100 countries divided into six regions, virtually the entire world (United States; Mexico; Europe, Middle East and Africa; Japan; Asia without Japan, and Latin America). Two hundred and twenty seven thousand of its nearly 370,000 employees were based outside the United States.[58] Business outside of the United States accounted for over half of total revenues and two-thirds of profits.[59]

According to the bank itself, offering customers the ability to trade with the group to satisfy their customers' liquidity needs was a key strategic goal. Not only does the bank provide advice clients on new derivative instruments, it has to allow them an opportunity to trade them. For many of the derivative products especially, there would be no market if the bank did not provide one. This is especially important for most hedge funds, whose business model is highly dependent upon quickly exploiting asset price anomalies with ever increasingly refined derivatives for which there is no public market. The bank has invested huge resources in creating an internal market, in essence warehousing securities and derivatives to build hedged positions and for future sale. As of December 31, 2007, 25% of

[56] 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.
[57] Hughes and MacDonald, pp. 27, 90-101, 149. Insert here a table comparing 12 banks ROA, ROE, Rev/Assets, Foreign Revenue, Foreign Assets, and Percentage Foreign employees circa 1970 to circa 2007, personal and administration costs as a percentage of revenues.
[58] Citigroup's 2007 Annual Report on Form 10-K, p. 2.
[59] Citigroup's 2007 Annual Report on Form 10-K, pp. 20-22.

its over $2 trillion in assets were being held for trading, up $145 billion from the year before, and nearly five times its equity capital. Trading liabilities amounted to nearly $200 billion. The bank's approximately $800 billion in investments were drawn from its affiliates all over the world. But investment activities were concentrated in the U.S. and U.K. markets.[60] Trading included fixed income, credit products, collateralized debt obligations (CDOs), equities, foreign exchange, and commodities. While the other trading revenues were smaller but consistently profitable, credit products lost money in 2005-6, and a huge $22 billion in 2007.[61]

The bank has a variety of different exposures created by its capital market activities. In 2007, its nearly $40 trillion of derivative contracts (swaps, options, futures and forwards as measured by notional values) were carried, net of offsetting items at $77 billion in receivables and $104 in liabilities on its books, positions that leave a net payable of $30 billion in derivatives in accounting terms <u>but which are by no means offsetting in financial</u>.[62] Approximately 80% of these contracts was made up of derivative trading positions for the bank's own account, not customers.[63] In addition to the assets belonging to the bank, it has nearly $60 billion in assets under management for third-party institutions and high-net-worth individuals.[64] More importantly, like many money-centered banks, Citigroup uses a variety of Special Purpose Vehicles (SPEs), ostensibly to transfer assets, liabilities and risk from its own balance sheet. In 2007, it was involved in nearly $800-billion worth of these entities, up 50% from the year before. They are in a sense trusts, whose liabilities are to be funded by pledged assets from mortgage or credit card businesses, but in whose activities Citibank still shares some liability. Many are offshore and allow banks to fund many activities and deal in

[60] Citigroup's 2007 Annual Report on Form 10-K, p. 66.
[61] Citigroup's 2007 Annual Report on Form 10-K, p. 129.
[62] In other words, the bank might have to write down its receivables and write-up its liabilities. There is no indication that the two are related. Moreover, the reader should see that the bank has a problem that is caused by toxic liabilities, not just toxic assets.
[63] Citigroup's 2007 Annual Report on Form 10-K, p. 57.
[64] Citigroup's 2007 Annual Report on Form 10-K, p. 34.

many kinds of transactions without those activities being run through their own balance sheets. For their own activities, the SPEs do a considerable amount of securities trading. As of December 31, Citigroup estimated its maximum to these entities at $152 billion.[65]

Accountants and banks have come under increasing pressure to disclose more relevant information *about, and to* mark many complex assets and liabilities to market or at least fair value. This pressure has resulted in a series of accounting standards – with Statement of Financial Accounting Standards (SFAS) 155, 157, and 159 dealing with hybrid instruments and fair value measures. Citigroup even adopted SFAS-157 and 159, which defined fair value, expanded disclosure requirements and gave alternatives for handling the value of specific instruments at the date of acquisition, on January 1, 2007, earlier than required by the SEC.[66] The accounting standard specifies a hierarchy of valuation techniques when prices are not observable. This hierarchy entails quotes from identical and similar instruments as well as prices derived from valuation techniques using value-driving inputs. The emphasis is on using observable inputs. But the bank admits that these inputs may not be available, and that during some periods, such as the one we recently lived through, markets may become so illiquid and some key inputs unobservable that make arriving at a fair price nearly impossible.[67] An amount, then, roughly equal to its capital base is invested in assets that are largely priced by complex mathematical models. The reader of even its very detailed annual report does know how each asset and liability has been valued and how liquid the market for each security is, they are not marked to market but rather marked to model. In the old days, Marketable Securities were those for which a market price could be easily derived and which the reporting entity could easily sell. Neither is the case as pertains to this class of security.

[65] Citigroup's 2007 Annual Report on Form 10-K, p. 161.
[66] Since the banking crisis, U.S. accountants have loosened the rules about marking certain securities to market. The International Financial Reporting Standards (IFRS) called for similar marking to market, but application of these rules for EU countries was watered down by the European Parliament in 2007. "Speaking in Tonguges," *The Economist*, May 19, 2007, pp. 77-78.
[67] Citigroup's 2007 Annual Report on Form 10-K, p. 11.

Business related to its making a market for complex instruments is a huge and volatile part of its business. In 2006, it accounted for approximately one-third of the bank's profits, just over $7 billion. A year later it recorded a $5 billion loss, centered in the United States and Europe.[68]

Although the banks invest much in evaluating and managing these risks, the data suggests that the huge size of their positions, illiquidity of markets coupled with huge volatility make the risks connected with their positions in these instruments, to borrow the accounting language of the standards, unobservable. Citigroup and JPMorganChase did stress testing before the U.S. government applied the techniques to judge the capital adequacy of banks, but they do not report the parameters of those tests. Moreover, they both report the variability of their trading revenues (profits), but not their trading volumes as any public market would. Citigroup, for example, reported net losses in 60 out of 255 trading days, but no indication of what and how much was traded.[69]

In addition, although the office of the Comptroller of the Currency restricts the transfer of dividends and some other payments among national banking and non-banking institutions under U.S. bank control, neither the bank nor government institutions report intra-bank international trading.[70] Consolidated accounting masks not only what goes on among domestic entities of the bank but also international ones. Nothing in Citigroup's annual report tells the reader to what extent deposits and borrowing from one national jurisdiction funds activities in others.

JPMorganChase seems to have weathered the crisis well, but its financial statements resemble Citibank's in several key respects. As early as 2007, the bank was also performing stress tests on its positions, in line with its recognition that the United States had suffered

[68] Citigroup's 2007 Annual Report on Form 10-K, pp. 19-22.
[69] Citigroup's 2007 Annual Report on Form 10-K, p. 63.
[70] Citigroup's 2007 Annual Report on Form 10-K, p. 154.

several crises since 1982.[71] Unlike Citigroup and several other banks, by 2007, JPMorganChase recognized the risks inherent in SIVs and had reduced its exposure to them, but not to subprime mortgages, although even its exposure to these assets was less than much of the rest of the sector's.[72] Unlike Citigroup, too, it questioned the reliability of new, complex accounting standards for valuing some assets and liabilities.[73] But its trading activities were extensive. The Treasury and Securities Group, its department for holding, valuing, clearing, and providing other services for investors and brokers, alone maintained $180 billion in average balances and did $10 trillion in daily transactions.[74] The bank had $1.2 trillion in assets under management and $1.6 trillion under supervision, amounts not included on its own balance sheet.[75] The investment banking division was also a market-maker for complex derivative instruments.[76] Its many activities, nationally and internationally, were designed to be tied together, reinforcing each other. Nearly two-thirds of its investment banking assets were held for trading or in the form of derivative instruments, an amount roughly one-quarter of the bank's total assets and three times stockholder equity. [77]

Many non-American banks also have developed huge foreign networks and trading operations. While avoiding some of the excesses, European banks such as Deutsche Bank and Société Générale have paralleled those of the American banks we have discussed in detail. **(Analysis to Follow)**

Conclusion

Contrary to most discussions of the financial crisis, we argue that private institutions' – rather than markets – which create and trade new instrument, ostensibly designed as risk

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[71] JPMorganChase 2007 Annual Report, p. 9.
[72] JPMorganChase 2007 Annual Report, p. 10.
[73] JPMorganChase 2007 Annual Report, p. 15.
[74] JPMorganChase 2007 Annual Report, p. 22.
[75] JPMorganChase 2007 Annual Report, p. 23.
[76] JPMorganChase 2007 Annual Report, p. 27.
[77] JPMorganChase 2007 Annual Report, p. 41.

management techniques to stabilize markets and to increase international liquidity, are at the core of our current problems. Supranational banks' platforms have distorted pricing and clearing mechanisms. The private nature of transactions has allowed for a level of specificity in contracts that makes public trading impossible. Without public markets and clearing mechanisms for many instruments, the notion of marketable security has become distorted. Banks have to rely on complex pricing models to determine market values demanded by accounting regulation, often leaving public authorities with the task of sorting out toxic assets and liabilities. Write-downs put pressure on banks to sell off assets, which helps cause an artificial downward price spiral. They tie up reserves, not only for market risk, but also counterparty risk.

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 are both cause and consequence of supranational banking institutions. These financial developments have created new opportunities for universal banks prepared to respond to them, but the responses have consequences too. Internalization of many cross-border activities has lowered unit costs and at many levels of activity but also added fixed costs. Investment banks have also 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 extreme 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.[78]

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. Diversified, supranational banks have fared better than specialized investment banks. 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, 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.[79] As some firms become too big too fail or perhaps to control, the issues of moral hazard and political control are fair ones to raise.[80] No one who knows us would accuse the authors of being Marxists, 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."

The past few years have witnessed one of the most topsy-turvy financial periods on record. Circa 2005, transnational banking was riding high. For a while bank stocks soared; new products and new actors seemed to insure a near endless source of new revenues. Graduates of the best business schools dreamt of huge bonuses at the top-tier banks. At the writing of this paper, however, despite very recent stock market gains, the business model of huge transnational universal banks seems under attack. Bank stocks, including the large

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[78] Morrison and Wilhelm, pp. 15-21. It should be noted that all of the firms that actually disappeared were absorbed by larger firms.
[79] R. H. Coase, *The Firm, The Market and the Law* (Chicago: University of Chicago Press, 1988)
[80] Hughes and MacDonald, pp. 156-157.

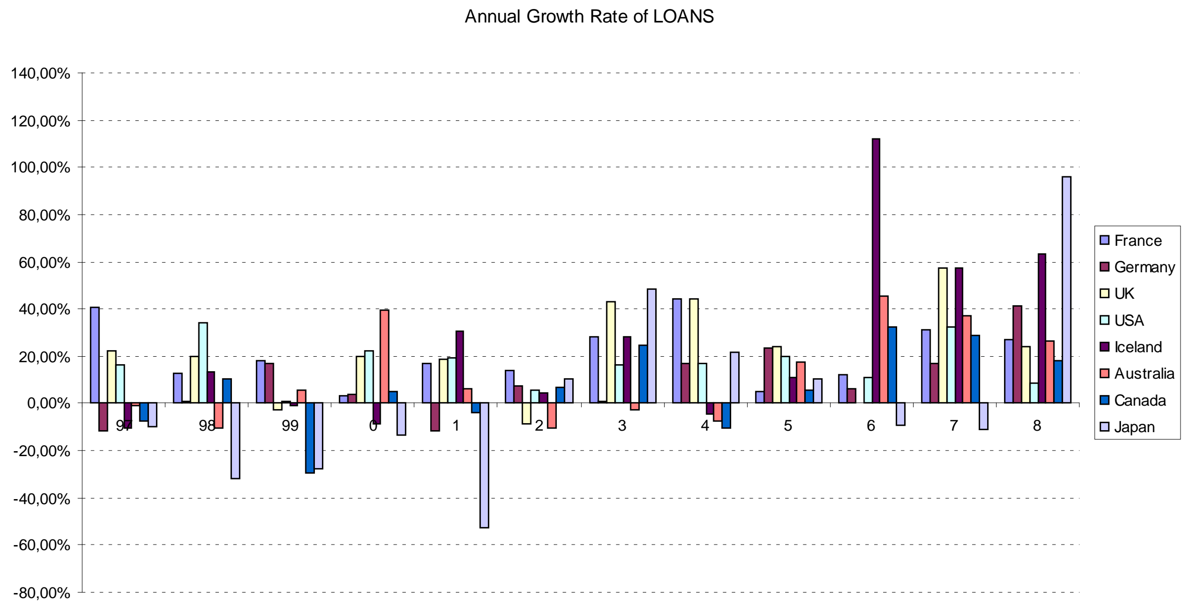
multinationals have witnessed a huge drop since their highs. Regulators are raising new questions and the banks themselves are wondering whether they can adequately manage their complex businesses, especially assessing the risks of new products and counterparties. It is hard to no whether these difficulties will lead to a breakup of these entities or to a wave of consolidation, creating new even larger firms. If the model really does lead to lower transaction costs and other sources of economic value, a new wave of mergers, like that of Bear Stearns and Morgan Stanley, may allow the stronger players to reap even more economic advantage, while regulators ponder how to understand and control even larger conglomerations of financial assets.

Appendix

Source: BIS Quarterly Review: September 2008

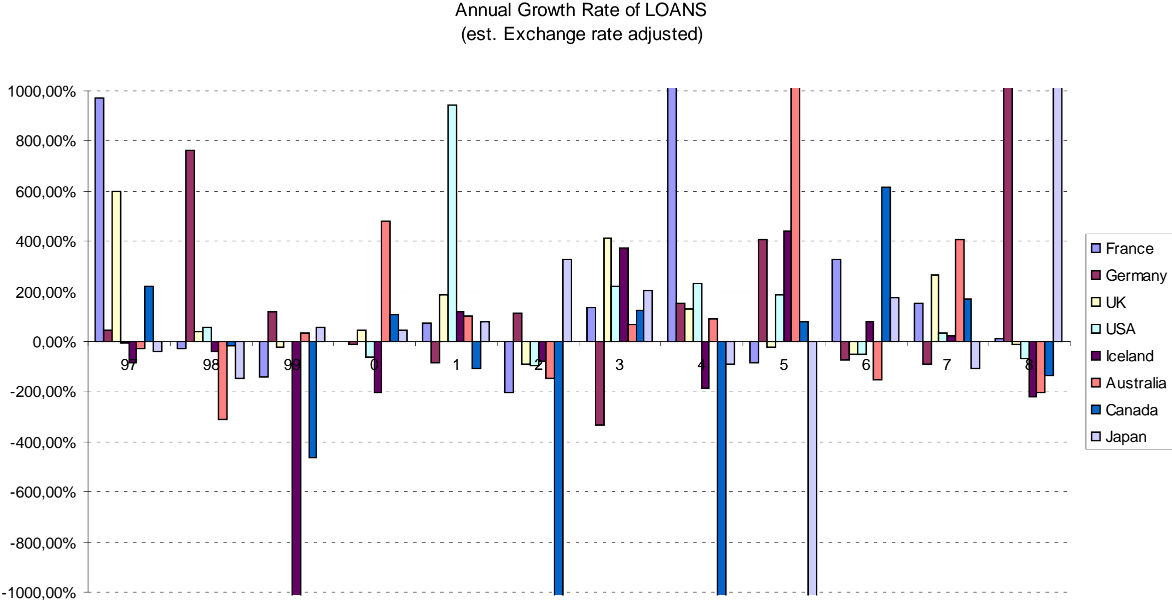
Graph 1

External loans and deposits of reporting banks vis-à-vis the non-bank sector



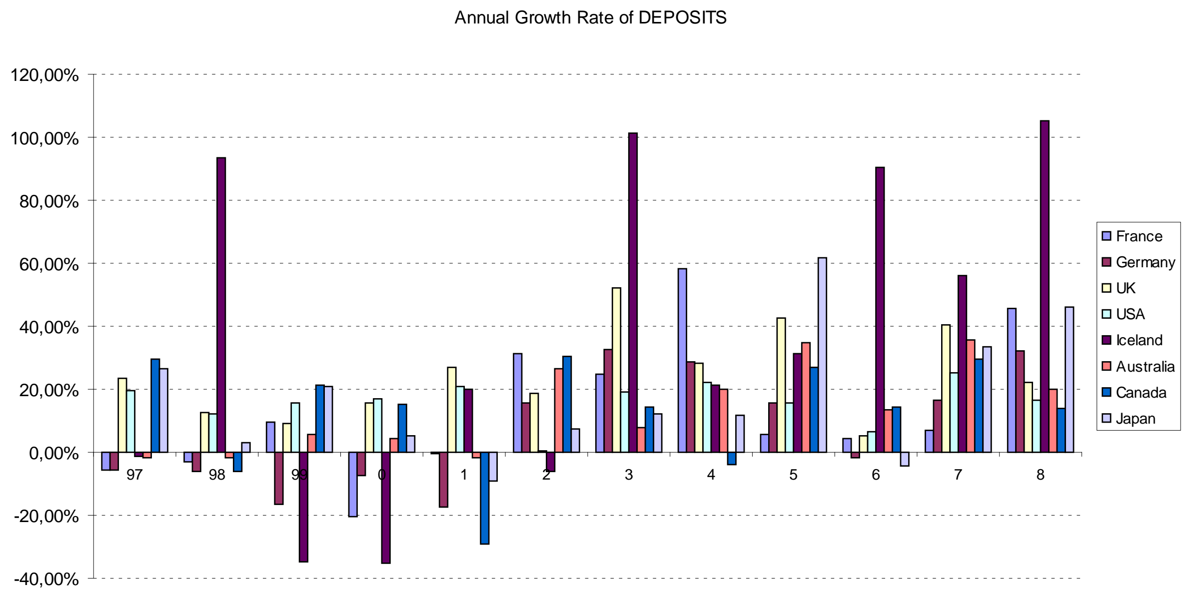
Graph 2

External loans and deposits of reporting banks vis-à-vis the non-bank sector



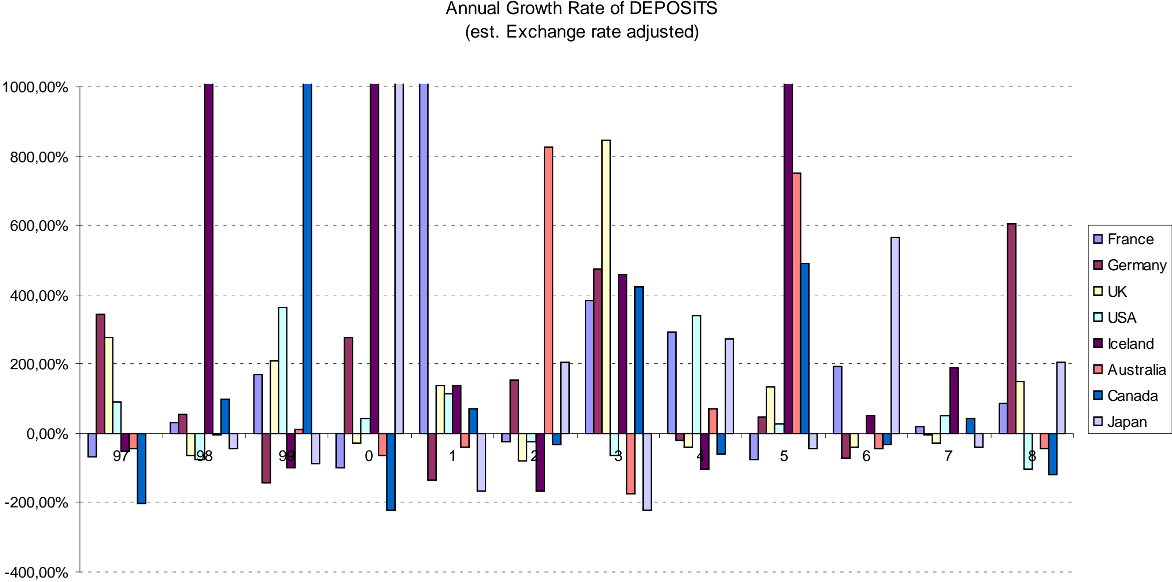
Graph 3

External loans and deposits of reporting banks vis-à-vis the non-bank sector



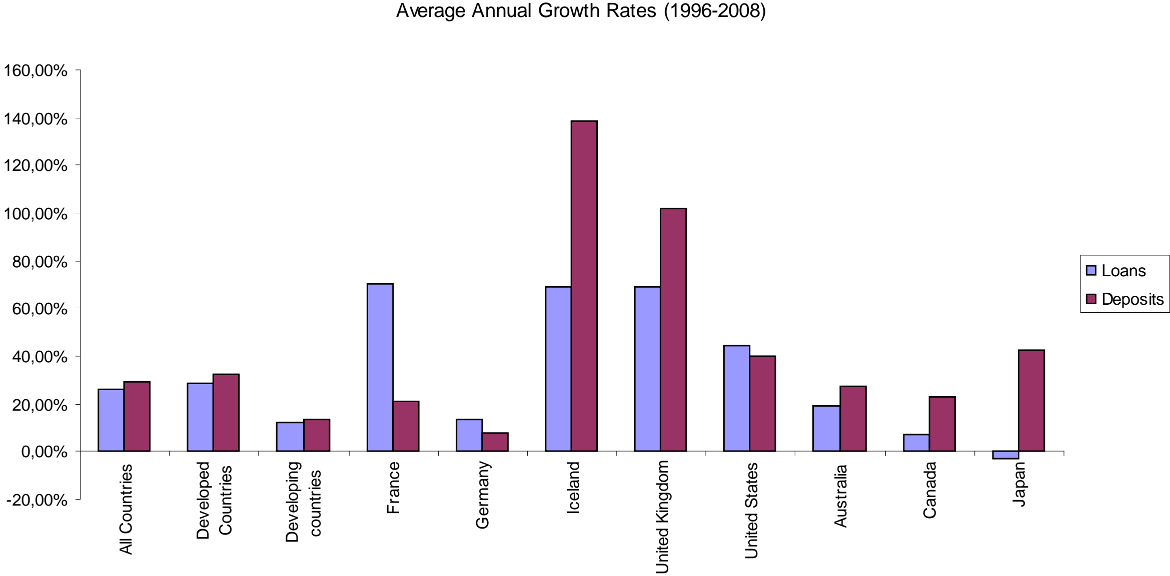
Graph 4

External loans and deposits of reporting banks vis-à-vis the non-bank sector



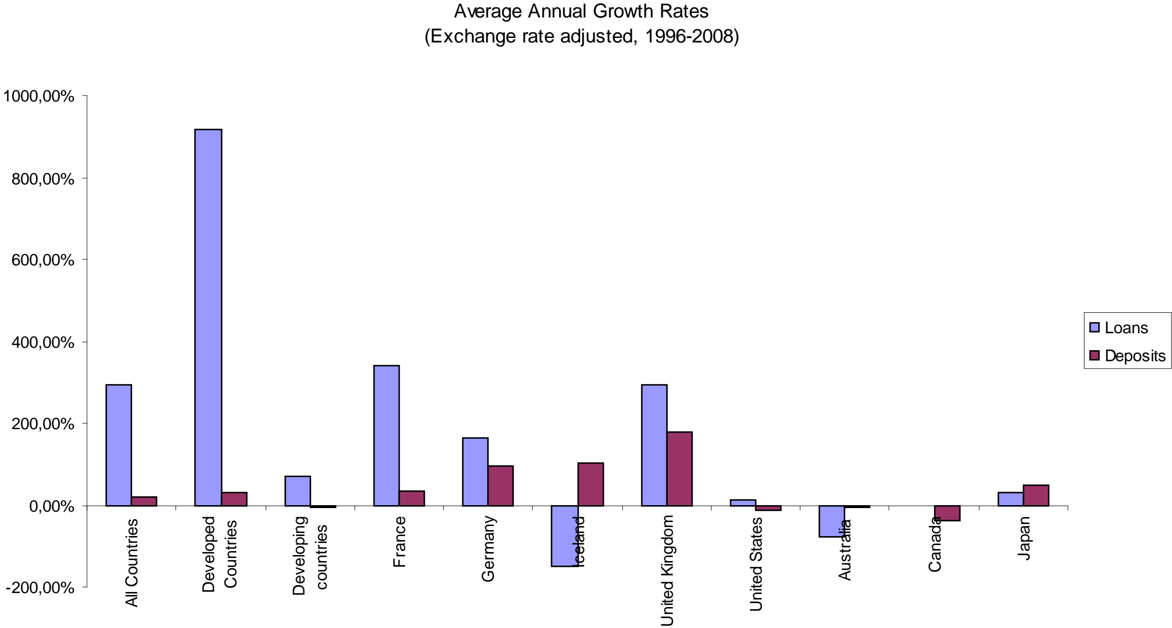
Graph 5

External loans and deposits of reporting banks vis-à-vis the non-bank sector



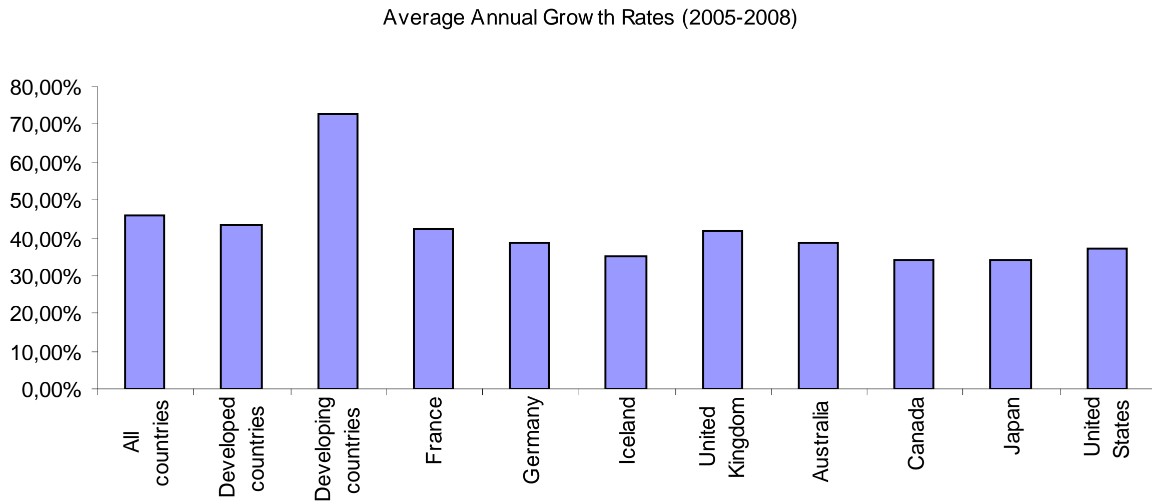
Graph 6

External loans and deposits of reporting banks vis-à-vis the non-bank sector



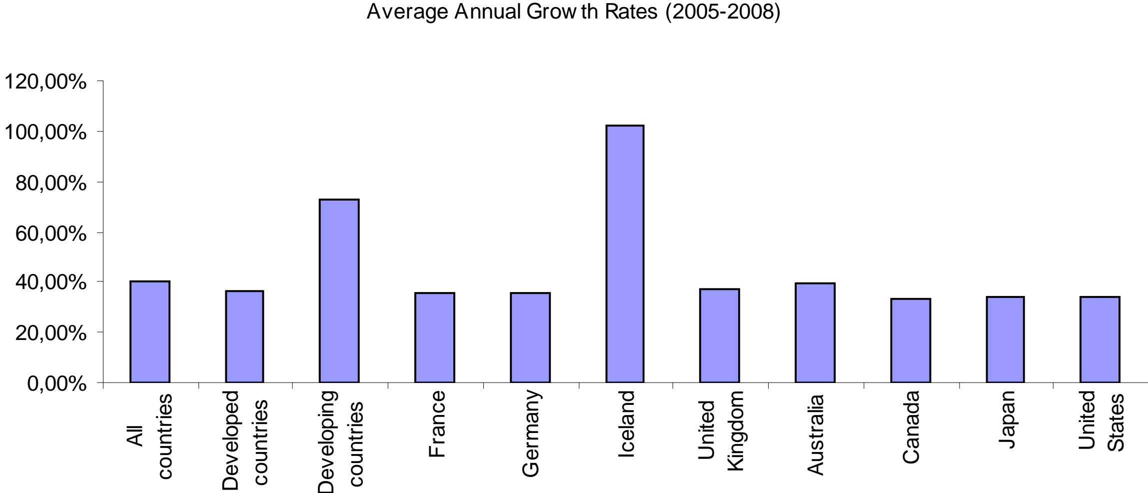
Graph 7

Consolidated foreign claims and other exposures of reporting banks - ultimate risk basis
Local claims of domestic banks foreign affiliates' in all currencies



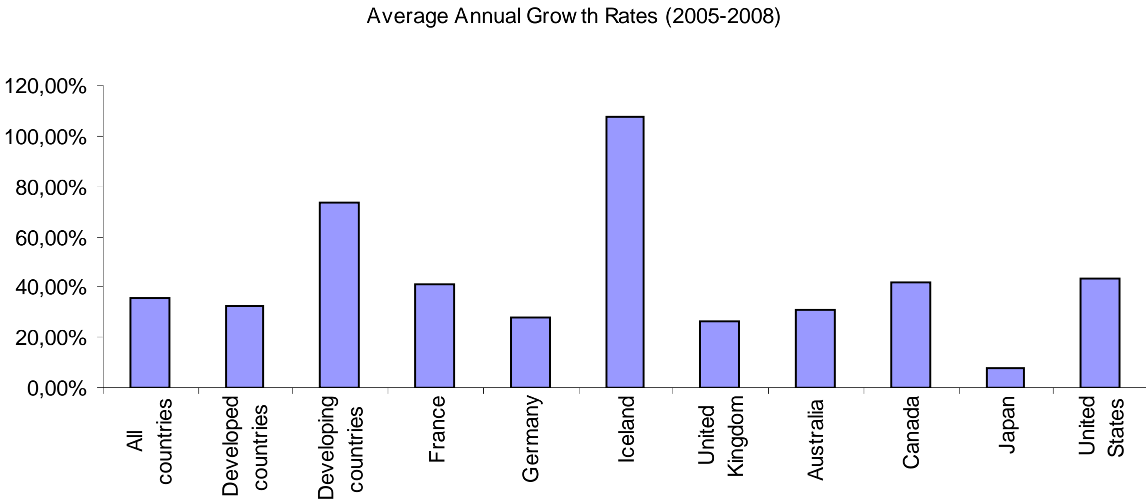
Graph 8

Consolidated foreign claims and other exposures of reporting banks - ultimate risk basis
Total of 24 countries (Total foreign claims on ultimate risk basis



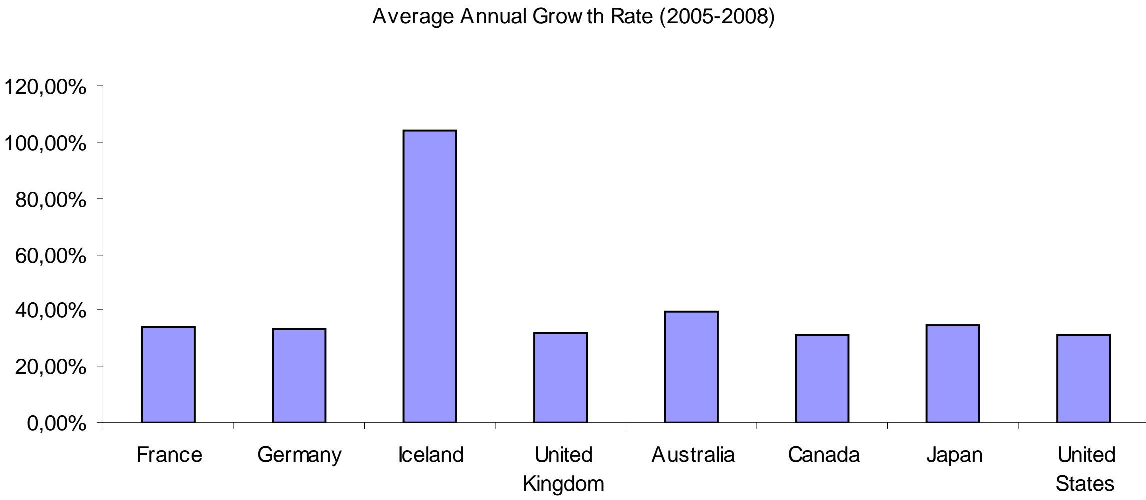
Graph 9

Consolidated foreign claims and other exposures of reporting banks - ultimate risk basis
Banks



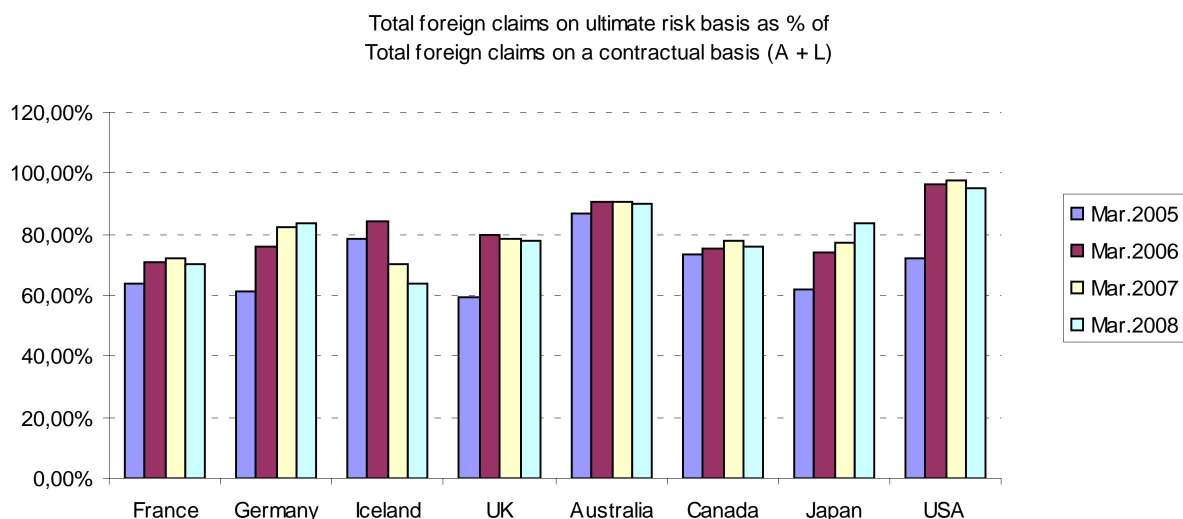
Graph 10

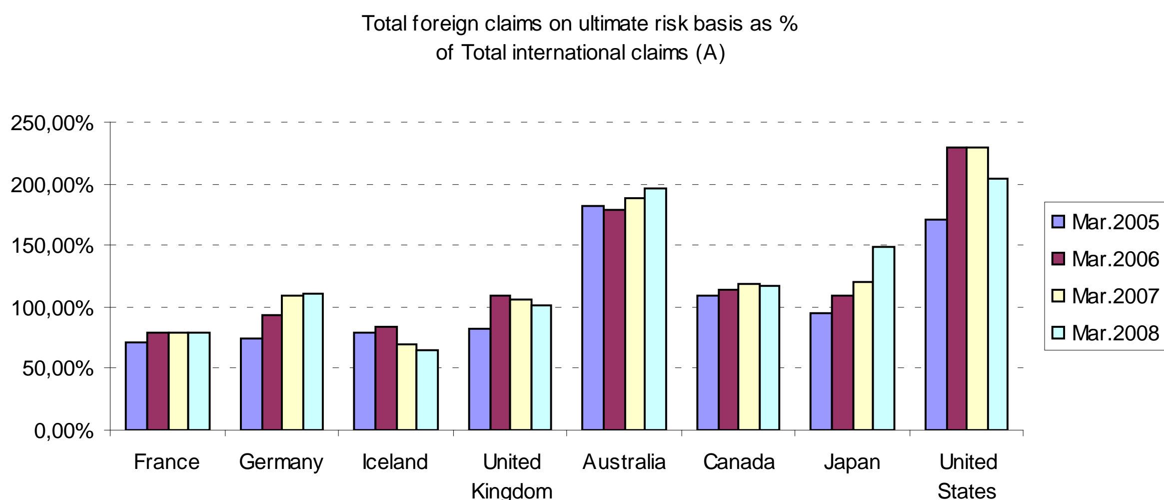
Consolidated foreign claims and other exposures of reporting banks - ultimate risk basis
Cross-border claims



Graph 11

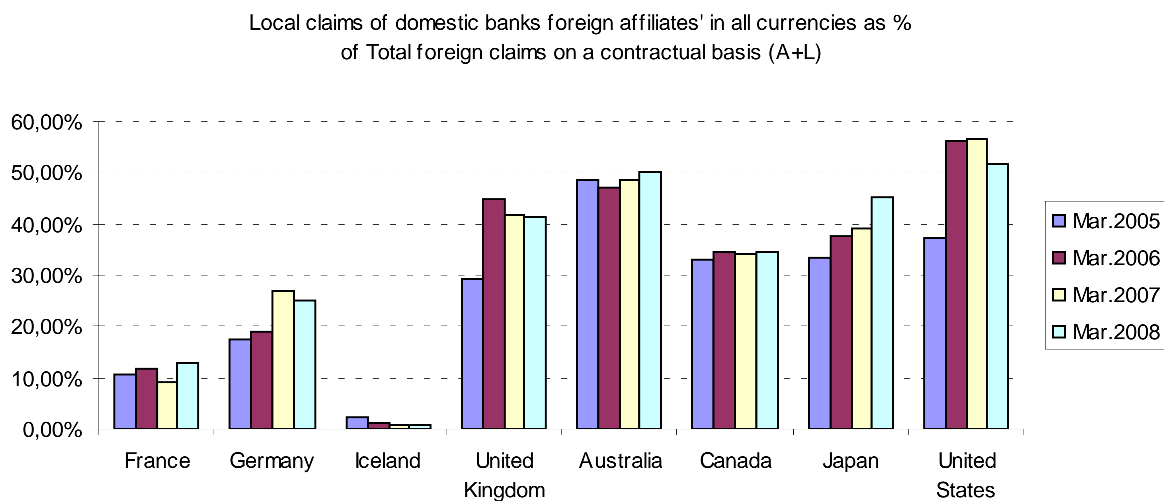
Total foreign claims on ultimate risk basis as % of Total foreign claims on a contractual basis (A + L) &
Total foreign claims on ultimate risk basis as % of Total international claims

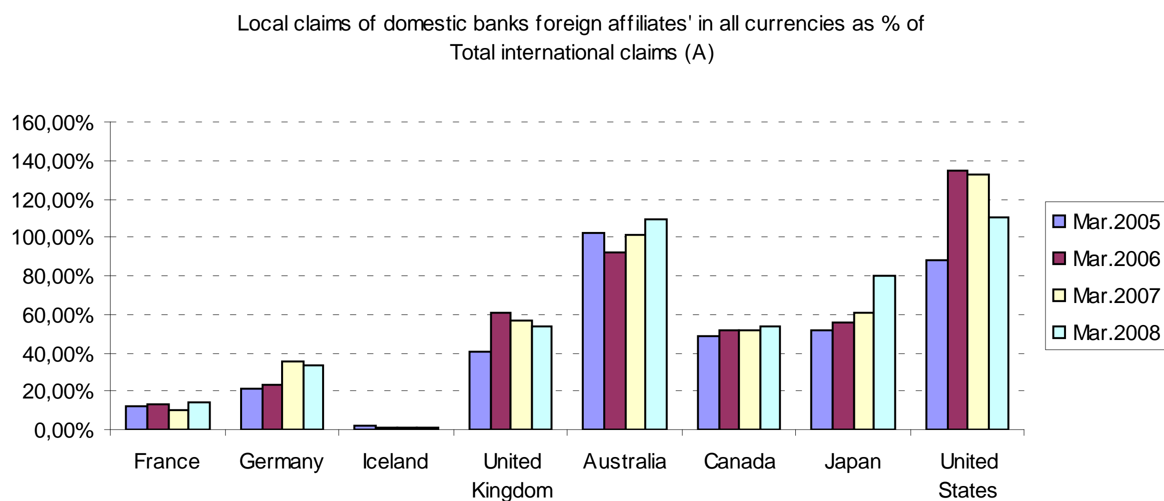




Graph 12

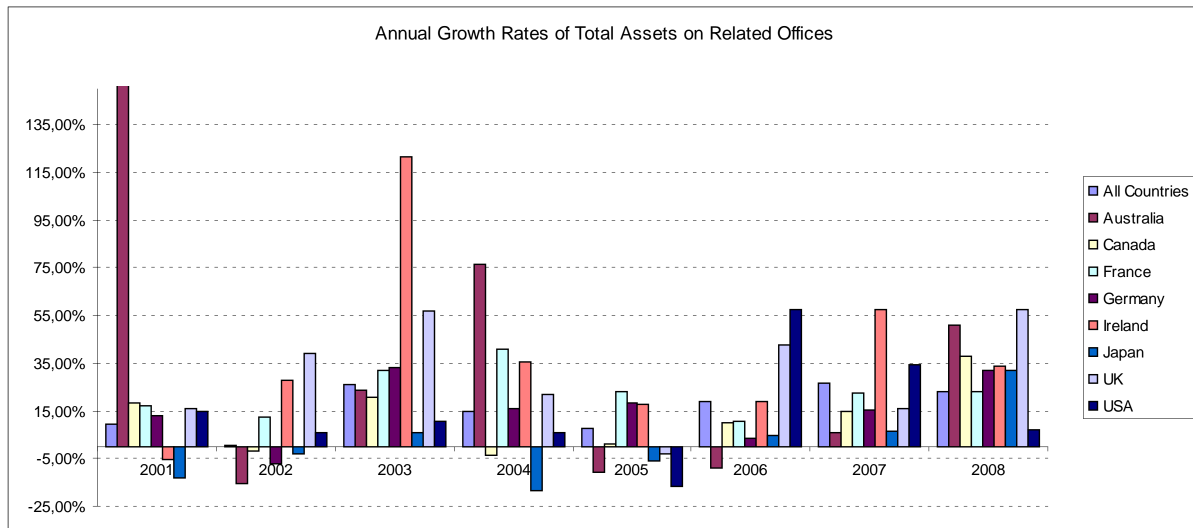
Local claims of domestic banks foreign affiliates' in all currencies as % of Total foreign claims on a contractual basis (A+L) &
Local claims of domestic banks foreign affiliates' in all currencies as % of Total international claims





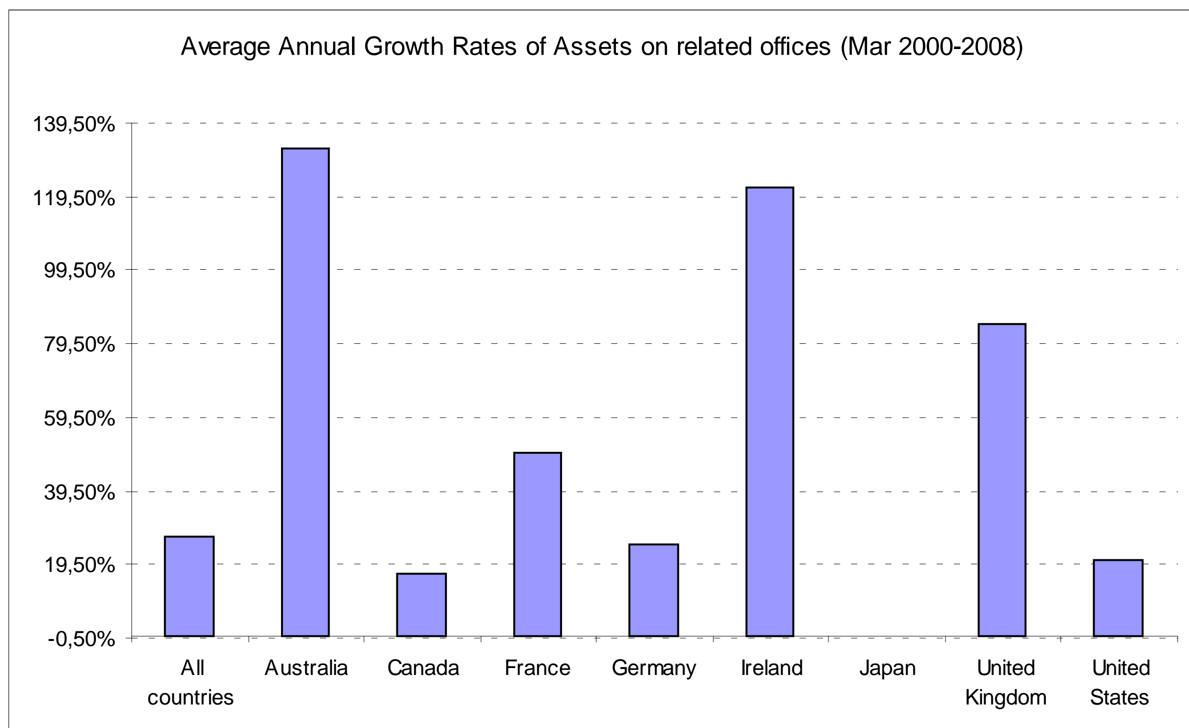
Graph 13

BIS – 8a



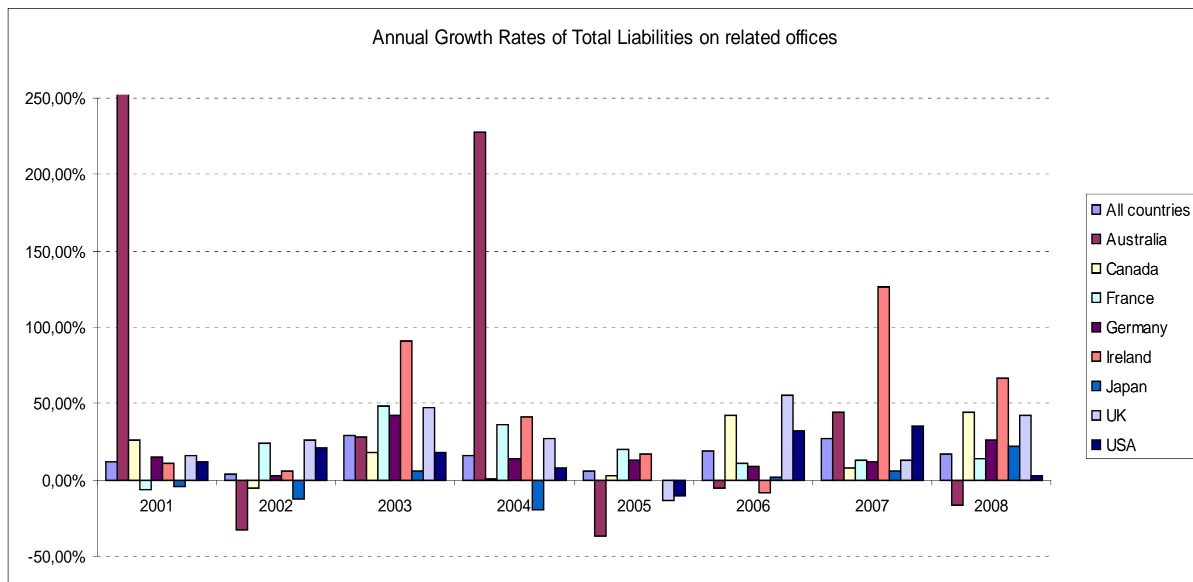
Graph 14

BIS - 8a



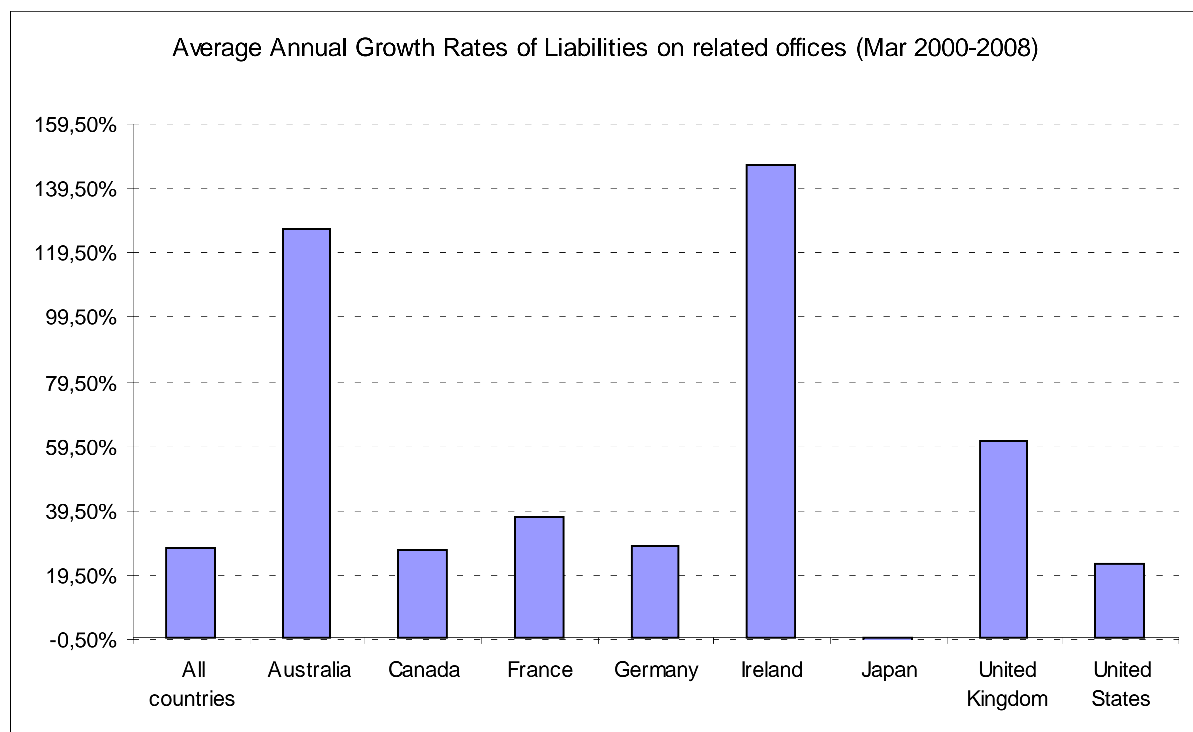
Graph 15

BIS – 8a



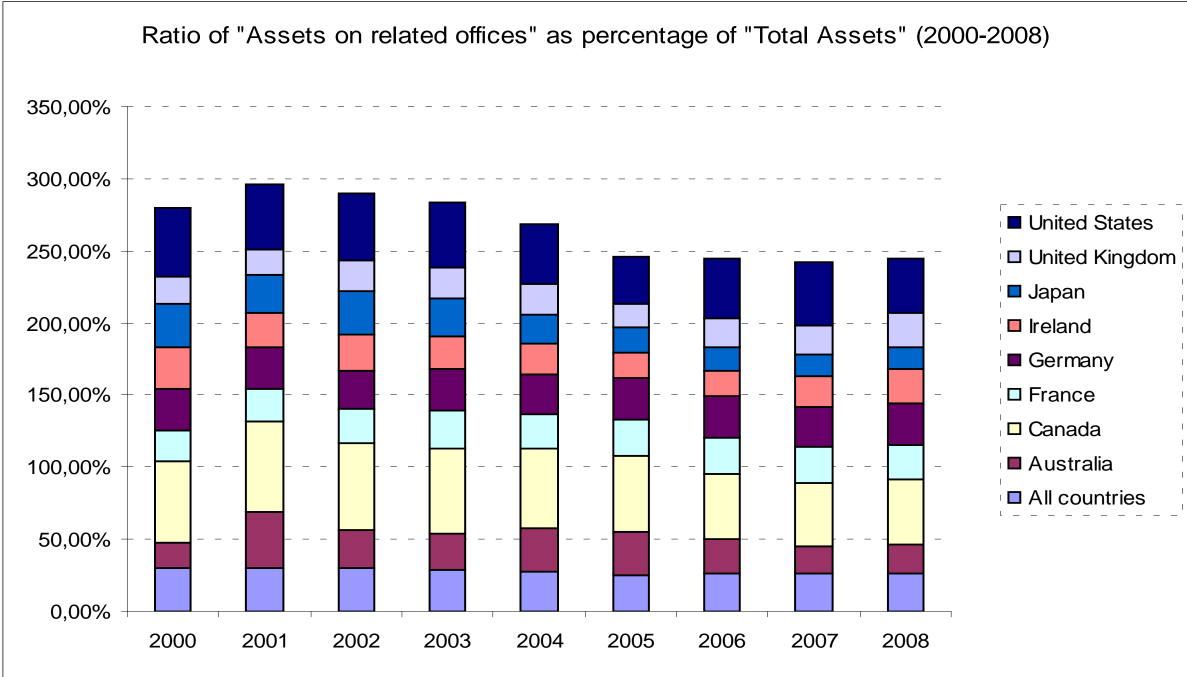
Graph 16

BIS – 8a



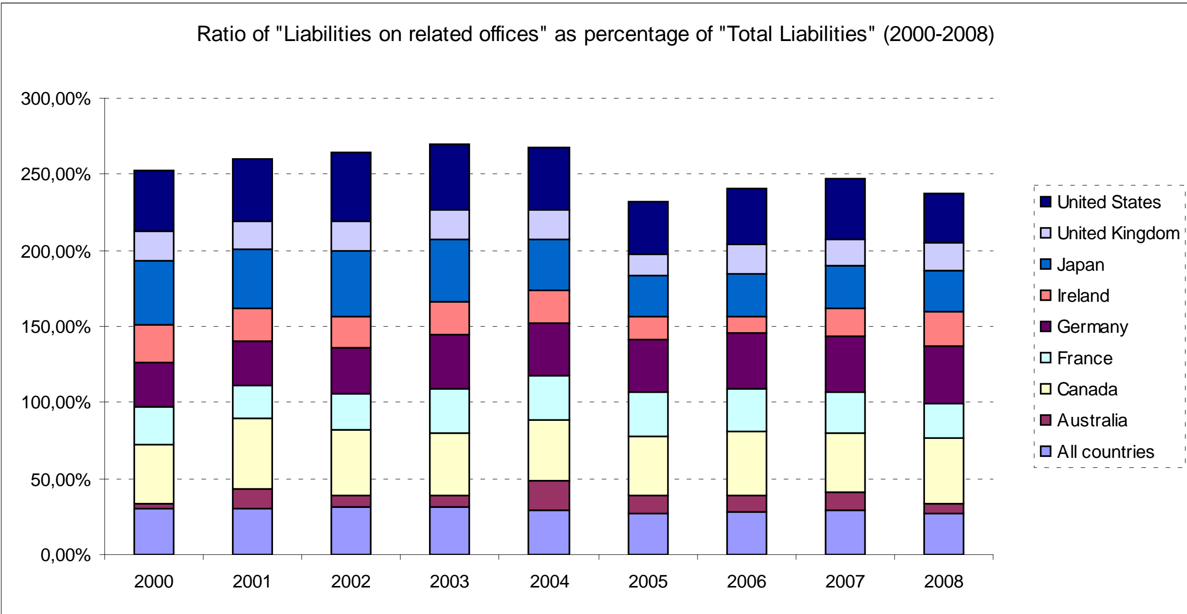
Graph 17

BIS – 8a



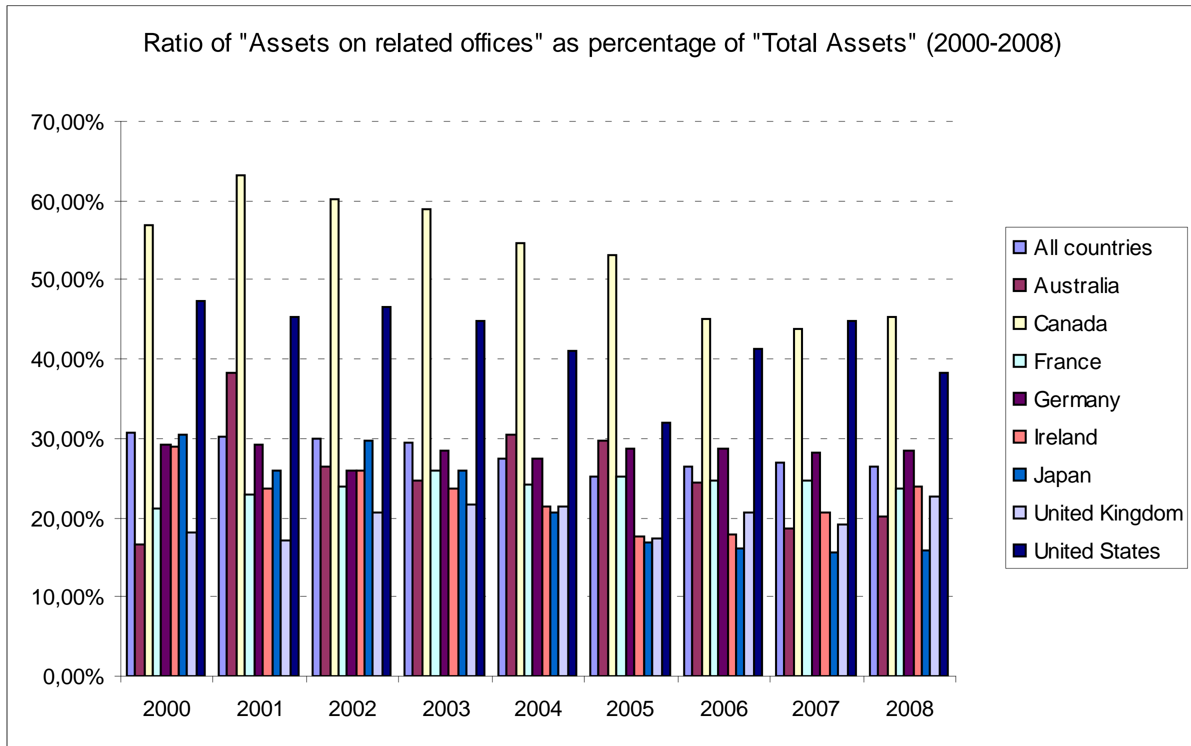
Graph 18

BIS – 8a



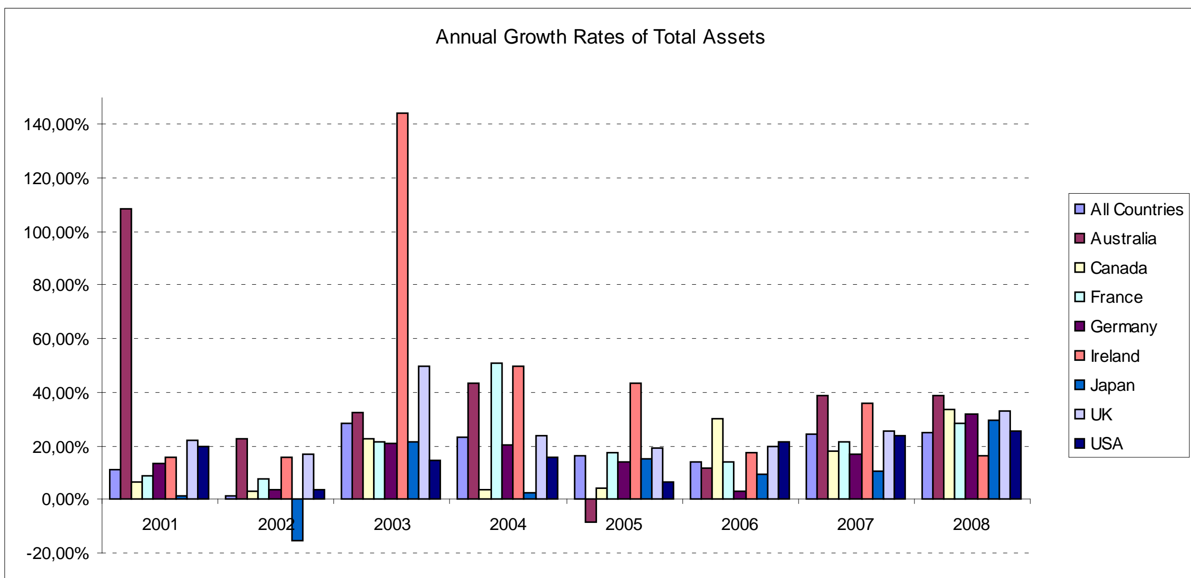
Graph 19

BIS – 8a

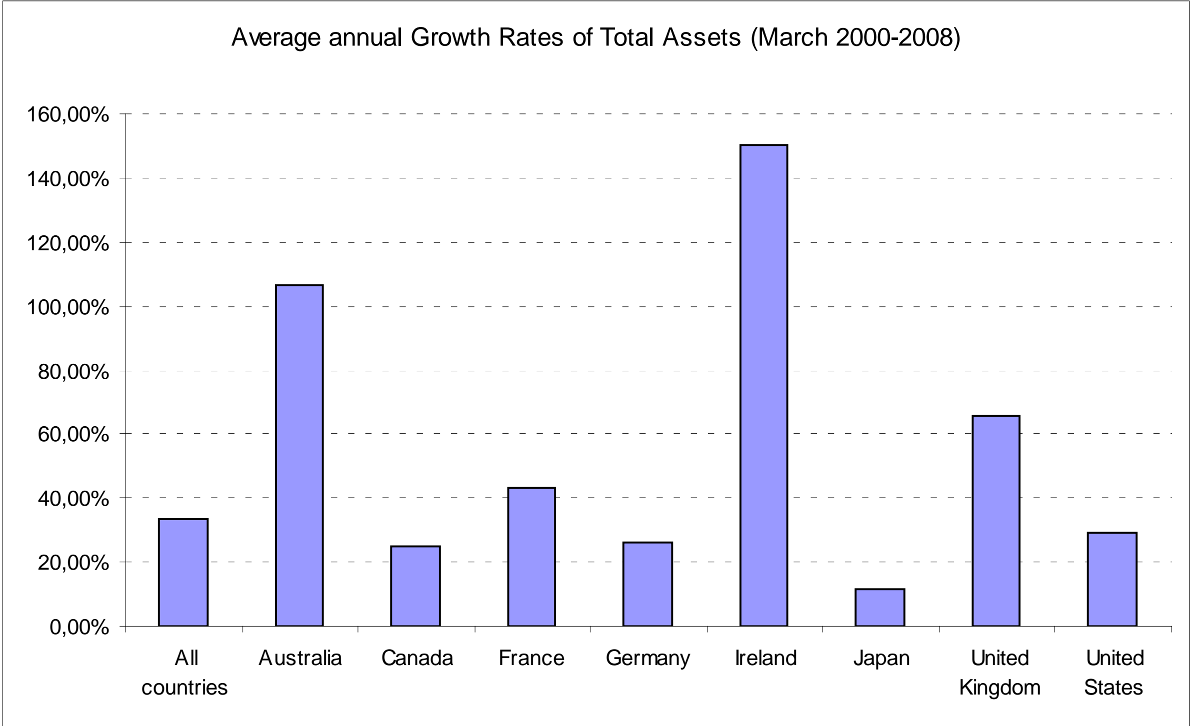


Graph 20

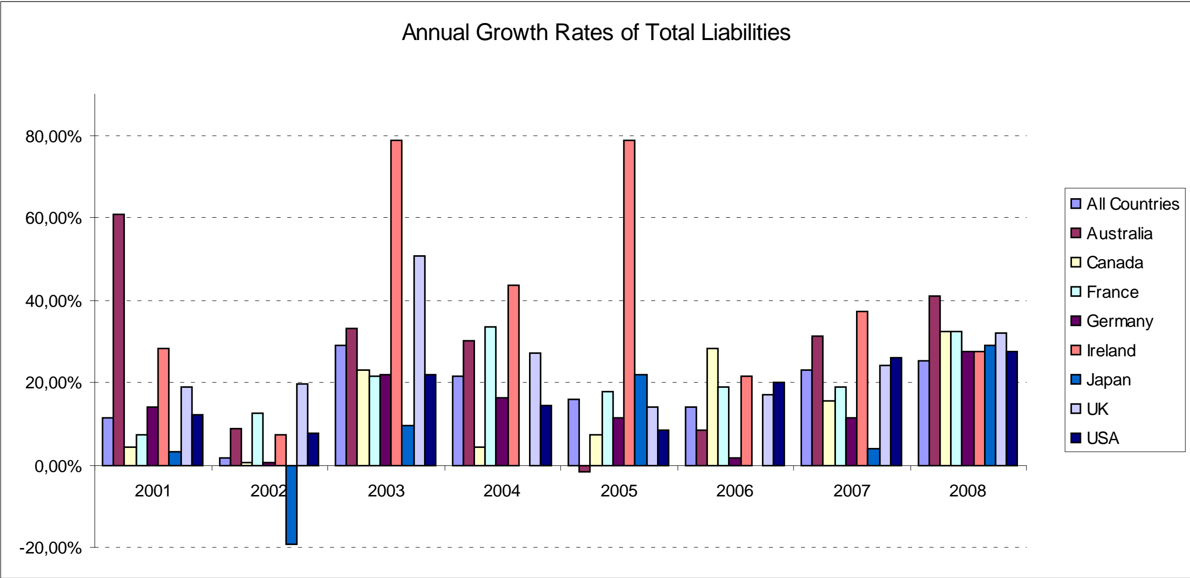
BIS – 8a



Graph 21



Graph 22



Graph 23