A Brief History of Investment Banking from Medieval Times to the Present

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ABSTRACT

Investment banking taken generally to mean the financing of long-term capital needs, came into being with the merchants of medieval trade routes. In almost all developed economies of the world, even those developing late in the 19th century, investment bankers emerged from merchant roots. The provision of investment banking services has come from a variety of institutions over time and across countries. Products and services have evolved to include complex, often derivative, securities; and the legal regulation of investment banking has often changed abruptly, particularly in the last 100 years. Thus, even well-known investment banking names that have endured over the centuries bear little resemblance to their ancestors.

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The term 'investment bank' refers to a class of financial institutions whose fundamental job is to help finance long-term capital needs of business and governments. Typically, an investment bank intermediates between the issuers of and investors in securities, such as stocks and bonds. Investment banks may employ their own capital in investing or not.

Historically, institutions providing investment banking services varied considerably in their structure and scope—both among countries and over time. In some countries, narrowly-defined investment banks constitute a specialized class of financial institution, but in most places, more diversified financial institutions provide investment banking services along with other related services, such as brokerage, securities dealing, investment advising, commercial banking, and even insurance. The latter type of institution comes under the heading "universal bank." Pure investment houses do persist and may further specialize in either wholesale or retail placements. These specialized investment banks typically associate themselves with brokerage houses and commercial banks. Given the variety of institutional forms around the world, we can best analyze the development of "investment banking" as a set of services as opposed to a specific class of institution.

The discussion follows on the basis of three periods of development that we can delineate along relatively general lines: (1) early origins, mostly in merchants and merchant banks, from medieval times up to roughly the mid-19th century; (2) the largely unregulated 'blossoming' of modern investment banking, in tandem with heavy industry and corporate securities, from the mid-19th century up to the inter-war period; (3) the regulated era, starting in the 1920s and 30s up to the present, through the deregulation waves of the 1980s-90s and into the new phase of regulation following the global financial crisis of 2007-08. Each time period brings with it its own organizational forms and changes therein, so each section explains the activities and financial innovations that constitute investment banking in that era and the different types of institutions that provide these services. Each section gives details of several example countries and key institutions, though the heaviest focus and most detailed account remains on the truly formative middle period of roughly the 1850s to the 1930s.

II. Early origins of investment banking: merchant banks from medieval times to the early-19th century

The term 'investment bank' came into common usage in the late 19th – early 20th centuries, particularly in the United States, though clearly the services that one associates with investment banks emerged much earlier within other institutions. Most of the oldest investment banks originated as merchants, who traded in commodities—grains, spices, silk, metals, and so on—on their own account. The earliest examples appeared in Siena, and more grew up in Florence, Genoa, and other cities engaged in medieval trade.[1] Amsterdam arose as a merchant banking center in the 17th century, while London took the lead soon after.[2] Indeed, in the UK, investment banks are still known as 'merchant banks.' Early trade finance bears only a passing resemblance to the business of a modern investment bank. Early merchant bankers typically used instruments like bills of exchange to finance trade in commodities, and they mostly did so based on their own capital.

Gradually, some merchant bankers expanded outside their family confines and took on limited-liability partners. Thus, the earliest merchant banks organized as partnerships, often with predetermined periods of operation (on the order of years), but with repeated renewals. The partnership method, similar to the private limited partnerships of many recent venture capital firms, dominated for centuries. In contrast to modern venture capital firms, the early merchant banks typically borrowed—essentially taking interest-bearing deposits—to finance their investment activities and leverage their investments. They also maintained branches and correspondents in the major trading centers of Europe: London, Antwerp, Lyon, Rome, for example. By the 16th century, merchant bankers began using money market instruments to finance their

[1] See Kohn (1999) and sources cited there.
[2] See Banks (1999).

investments, selling their commercial paper to other merchants and even small investors.

The early merchant banks invested in trade and exchange related instruments: earning profits off of triangular arbitrage trade or forward speculation in international currency movements as well as financing long-distance trade. The merchant banks lent to a range of monarchs, royalty, and the papacy, usually gaining privileges, access, and side payments in return. Famous examples include the Medici of Florence from the late 14th and 15th century and the Fuggers of Augsburg rising to the fore in the mid-15th to 16th centuries. The major British houses start with the Barings in 1763 and Rothschilds later in the 18th century, followed by a string of others over the early to mid- 19th century: Schroders (aka Schröders), Hambros, Kleinwort, Morgan, and others.

Eventually, some merchant banks began selling longer-term securities to outside investors and taking on long-term capital financing business, including early versions of corporate stock. The most famous modern example of corporate stock comes from the East India Companies in the early 17th century, which were government chartered monopolies, in some cases quasi-governmental agencies, engaged in trade in the East Indies. The Dutch version issued the first stock and financed further operations using bonds. Joint-stock companies remained rare and remained the domain of government concessions and charters well into the 19th century. Likewise, early securities markets traded most heavily in government issued securities throughout this period.

Thus, full-fledged investment banking, based on the underwriting and placement of corporate securities, rose in parallel with the liberalization of incorporation and the rise of large-scale corporations in need of external finance. Indeed, modern-day investment banking hinges on the availability of corporate securities and of securities markets to allow arms-length secondary trade.

III. Blossoming of investment banking services and the build-up of universal banks: mid-19th century to World War I

Investment banking evolved into its modern form starting in the early 19th century. At this point, investment banking entailed issuing (underwriting) securitized instruments, usually on large scale compared to the assets of investors. The first such activity involved underwriting and sale of government bonds. While the monarchs of the pre-industrial era often turned out to make poor investments for the merchant bankers, growing credibility of 19th century governments, along with a larger investor base, permitted extension of credit and placement of their bonds with investors. Governments dominated among early investment banking clients, as governments demanded large-scale financing, typically using debt securities, particularly in times of war. The switch to purely financial merchant or investment banking often came in response to an unusually expensive military engagement, such as the Napoleanic Wars in Europe and the Revolutionary War in the United States. In the latter, the War of 1812, the Mexican War in 1846, and most importantly, the Civil War in the early 1860s, created huge demands for government financing and impetus to investment bank formation.

Corporate investment banking activities naturally took hold in places where the demand for long-term capital exceeded that immediately available from an entrepreneur's personal network of family and associates. Such long-term finance could take many forms, including equity and debt instruments. Debt instruments gave investors rights to a defined cash flow (fixed income) without any ownership stake; that is, no control rights. Equity finance, through common or preferred shares, gave the shareholder some less-defined cash-flow rights but also usually included some level of control rights—depending on how the corporate charter spelled out dividend payments to the various classes of shares. Typically, preferred shares came with higher and more definite dividend payments than common stock, but preferred shareholders usually gave up voting rights in return and therefore could exercise little control over corporate management.

Naturally, debt securities held less upside potential than equity shares, but they remained popular with outside investors with little or no knowledge of a company and its management and also with owners (often families) who wanted to maintain control of their firms. Equity shares, on the other hand, allowed risk sharing: founders and their heirs could divest part or all of their ownership and diversify their wealth, while new investors seeking returns could assume that risk.

Virtually any type of firm could issue securitized debt, while only certain classes of corporations could issue equity shares. Most governments constrained incorporation by imposing extensive legal hurdles, lengthy wait times, and high concession fees. Over the early to mid-19th century, however, many countries eliminated complex and arcane chartering requirements, thereby lowering the cost of incorporation.[3] The expansion of limited liability further encouraged investment in corporate equity by allowing entrepreneurs and investors to wall off their personal wealth from their business undertakings and investments.

By the 1830s, the beginnings of the global railroad boom demanded prodigious volumes of long-term capital along with the need to manage the associated risk. Joint-stock corporations financed through both stocks and bonds provided the needed capital and risk sharing and spurred the development of corporate investment banking. The large-scale expansion of railroad networks brought advances in steel production and broader industrialization, followed by the advent of the electrical age and large-scale industry and utilities. Thus, as the 19th century progressed, the need for outside investors and the need to intermediate between them and entrepreneurs increased as well.

In this process of channeling funds from investors to issuers, investment bankers worked hand in hand with and helped promote the development of secondary markets for securities. Stock market liquidity—that is, ease and low cost of trading securities—enhanced the prospects for initial placements, reassuring investors of their ability to liquidate their holdings as needed in the future. Thus, the larger and more liquid the secondary market for a security issue, the easier it is for the investment house to place the security in the primary market. Indeed, all of the most highly developed economies of the 19th and early 20th centuries developed active securities markets along with investment banking.[4] Many early securities markets built on the foundation of existing commodities exchanges, which naturally came into being where merchants needed to

[3] See Hickson and Turner (2005) on the history of the corporation and Morck (2005), which includes chapters covering many different countries.

[4] (Fohlin, 2012)

transact their business: another link or synergy between merchant and investment banking activities.

Structural differences among institutions providing investment banking services

Methods of investment banking, institutional design, and rates of development varied across countries and over time.   Most early investment banks started out as private firms, often individual merchants that then expanded into private partnerships.   The menu of legal structures only broadened with the political and legal liberalization of the nineteenth century, when it became much easier to incorporate and gain limited liability. In the industrializing countries of continental Europe, the largest banks combined investment and commercial banking and by the 1870s became some of the largest joint-stock companies trading on several of the countries' stock exchanges.   By contrast, the major British and American investment banks remained private partnerships throughout the period.

The structure of an institutions balance sheet will partly rest on the scope of services, reflecting the nature—the maturity, liquidity, and risk—of the assets they hold on their balance sheets and of the off-balance sheet activities in which they engage. Since investment banking means long-term capital investment finance, while commercial banking covers the short and medium-term end of financing, investment banks hold fewer short-term, liquid assets than commercial banks and may hold little or no reserves.

Because of this potential asset illiquidity, investment banks primarily fund their activities from long-term liabilities—very often equity capital—and rarely take significant deposits or other short-term liabilities. A typical commercial bank uses a high proportion of deposit funding and holds some portion of its assets in reserves, owing to either government regulation or simple prudence.

In a wide range of cases, however, banks have combined investment banking services with commercial banking activities or other types of services, making them 'universal' banks.   Universal banks may also provide brokerage, short-term lending for stock market transactions, insurance, or other financial services. These mixed banks fund their operations from a mixture of equity capital and deposits.

Universal banks, since they also provide short-term commercial lending, hold liquid assets and assume outside liabilities, even sight deposits. Thus, the financial structure of this class of bank can range anywhere from that of a pure investment bank to that of a pure commercial bank, depending on the services provided and the management principles in place. Moreover, in some countries, commercial banks create investment banking affiliates, investment banks take stakes in commercial banks, and in a whole range of other ways banking and commerce mix in ways difficult to pick up in accounting data.

Even among different investment banks, funding methods may differ based on the manner in which they handle securities issues. Some banks may purchase a complete issue from an issuer and subsequently sell off stakes to investors; others take subscriptions from investors and go forward with the issue once they have garnered sufficient participation. The prevalence of the two methods has varied over time and across countries. The choice of one method over another may significantly impact the structure of the bank and its financial relations with its customers. In particular, investment banks that use the pure underwriting method for corporate issues may require greater equity capital and may become more actively involved in both ownership and control of industrial firms than those using the subscription method.

The structure of a bank's assets and liabilities affects its own profitability and riskiness. Turning deposits and capital into loans and securities, known as qualitative asset transformation (QAT), yields a return to the bank. The more a bank uses its resources to invest in working assets, the greater are the potential profits to the bank. At the same time, such QAT poses risks to the bank if the bank's resources have significantly shorter maturity or greater liquidity than its assets. Although all banks face this trade-off between profit rates and risk, universal banks contend with the additional problem of striking the optimal balance of commercial and investment services. The combination might offer economies of scope or benefits of diversification, but one can equally hypothesize diseconomies of scope, conflicts of interest between the investment and the commercial banking functions, or excessive riskiness stemming from liquidity mismatching.

Government regulation and securities market rules vary in determining what functions investment banks may perform and how they do so. Historically, some governments or stock exchanges have regulated the portion of an equity issue that must be paid up in advance of issue or exchange listing or trading. In some countries and periods, for example, new issues of stock are prohibited from being listed officially without the full value being paid up. Yet in other countries, stock could be listed with a small fraction of the capital actually paid in to the company. In places where a high percentage of capital must be paid in, companies floating new issues would benefit more from underwriting by investment banks and from the associated assurance of placing the shares.

Along with their traditional financing activities, investment banks or universal banks may participate in the governance of nonfinancial corporations, particularly through placement of representatives on boards of directors and sometimes through ownership of equity stakes. In some historical cases, investment banks took direct corporate equity stakes by design, or used their intermediary position to gain voting rights, but many such positions often resulted from the failure to fully dispose of a new issue that the bank underwrote.

Banks in many countries gained seats in corporate boards, gained through direct or proxy control over voting rights or out of reputation and informal relationships. Of all banking-institution types, universal banks or similar multi-product financial institutions could gain access to company boards most easily because they issued and brokered securities and then often held them on deposit or for safekeeping for customers. Pure investment banks, because they tended not to engage in account services for small stakeholders, found a less obvious and ready source of proxy votes. Nonetheless, there are no iron-clad connections between scope of banking services and involvement in corporate governance. Not all universal banks held significant equity stakes or board positions in nonfinancial firms, and many banks that were not universal participated in both ways.

Investment banking in the leading economies of the nineteenth and early twentieth centuries

Investment banking arose in some form in all industrial nations of the world in the nineteenth century, almost by definition. The institutional forms varied, largely based on the origins of the investment banking firm and the needs of the economy in which the investment banker operated. England and most countries with close historical ties to England—for example, Argentina and India—held most closely to the English ideal of specialized investment banks for long-term capital needs and commercial banking based on short-term finance. Most other countries formed explicitly universal banks, and even those with specialized commercial banks, such as the United States, France and the Netherlands, also supported universal or quasi-universal banks. Moreover, financial institutions played wide-ranging roles in corporate governance, from outright equity ownership (which could also work in reverse) to proxy voting rights, to representation of bankers and their associates on industrial corporate boards. A look at several different countries during this period reveals both common patterns and idiosyncratic differences.

England

England began industrializing ahead of most of the rest of the world, and the early industries there used small scale production based on relatively simple technology. Growing industrial development created new demands for investment banking services in England, especially at the turn of the nineteenth century. Infrastructure projects, such as canals, public utilities, and ultimately the massive endeavor of railway construction spurred increasing needs for long-term capital. As in most countries, however, the pool of public share companies—and therefore the business of placing industrial equities—remained constrained until later in the nineteenth century, particularly until the liberalization of joint-stock incorporation under the Limited Liability Act in 1856 and its expansion in the Companies Act of 1862.

Once in place, new corporations formed, many converted from existing private firms.[5] Investment banking services included both pure intermediation and full underwriting of new issues. Outside of railroads, the most significant growth in securitized finance and of investment banking services began in the 1860s, and accelerated in the 1880s and 90s, once the level of technology increased the scale of production and therefore industry's need for external finance. Communications (telegraph and telephone), mining and textiles, chemicals, engineering and breweries all marketed securities to outside investors, as did the bicycle industry that boomed in the 1890s and the automobile sector in the decades to follow.

Specialized investment banking firms, organized as private partnerships, dominated the nineteenth- and early twentieth century investment banking scene in England. The best known institutions came out of the merchant banking tradition: Baring was the first and one of the most highly reputed of the British merchant/investment bankers, having been founded as a merchant house in 1763.[6] Several of England's premier merchant bankers of the period, including Baring, came from immigrants who relocated from the continent, particularly Germany (Baring, Rothschild, Schroeder, and Kleinwort) but also Denmark (Hambros). Even Morgan Grenfell traced its roots to a foreigner: the American banker George Peabody, whose firm eventually became J.P. Morgan & Company. Lazard Freres, arrived in 1870, also from the United States, though the family had originally emigrated from France and had set up an office in Paris in 1854.[7] The merchant banks focused heavily on international trade and finance, as was their founding purpose, and their engagement in investment banking activities picked up along with the increased use of joint-stock companies toward the end of the nineteenth century, but their progress in new issues underwriting remained slow well into the 20th century.[8]

Less famous but earlier participants in corporate investment banking are the finance companies of the mid-19th century, such as the International Financial Society,

[5] See Watson (1996).
[6] See Cassis (2013) at the Baring archive website: http://www.baringarchive.org.uk/materials/yousseff_cassis.pdf
[7] See the historical timeline at http://www.lazard.com/about-lazard/history/
Accessed August 7, 2014.
[8] See Chambers and Dimson (2009).

General Credit and Finance Company, and London Financial Association. [9] The finance companies helped underwrite new corporations, many converted from existing firms, largely in railroads and other industries of the period. The key organizations formed in the early 1860s, following the model of the French Crédit Mobilier (see the subsequent section on France): providing long-term capital to new industry and financing operations mostly from loans and usually a relatively low percentage of share capital. While most of these companies appeared independent of the English merchant banks, the International Financial Society was a creation of several of them in collaboration with the French, Spanish, Italian, and Dutch crédit mobiliers. The General Credit and Finance Company also grew out of an Anglo-French partnership; this time, between British railroad promoters and the syndicate of French bankers responsible for the creation of the Societe Generale.

Another form of institution, the company promoter, also performed investment banking type functions. Rising to the fore in the latter decades of the 19th century, as more English manufacturing firms took on joint-stock limited liability form, company promoters usually bought up an entire private company and sold off equity shares in the public market.[10] Company promoters brought in the necessary lawyers, accountants, and brokers and lined up investors; earned profits via the spread between the price they paid to purchase the company and that at which they could sell off the shares, in some cases racking up a substantial and gain in short order and never taking a personal stake in the new corporation. In the process, the company promoters earned some disrepute for paying too little to founders or passing off poor prospects onto ill-informed investors. Because of the large numbers and informal organization of these entrepreneurial financiers (some performed these functions as an adjunct to other professions), it is difficult to make broad generalizations about their impact, but some gained a reputation for running a serious business that presaged the modern venture capitalist.[11] The most famous of the group was Henry O'Hagan, who floated several major companies in the 1890s, using what appeared to be the unusual practice of holding shares on his own account and working to ensure high quality corporate

[9] See Cottrell (1974) for an in-depth study of the finance companies and particularly of the International Financial Society. See also Cameron (1961) on the French connections.
[10] See Armstrong (1990) and Davis and Gallman (2001).
[11] See Nye (2014) on the relationship between company promoters and the press.

governance and management.[12] O'Hagan also promoted American companies in the London Stock Exchange during the wave of such activity in the late 19th century.[13]

Many English joint-stock companies promoted by the merchant banks and finance companies began trading on English stock exchanges. Due to its global empire and trade connections, London became the center for trading in a full range of securities from around the world. Meanwhile, the provincial exchanges focused on securities issues from local industrial firms, with new exchanges appearing in the industrial centers of Manchester, Liverpool, Birmingham, and Leeds in the 1830s and 40s. The stock exchange placed little constraint on companies wishing to trade shares, and accounting law remained relatively lax until the (re)institution of legally mandated auditing and publicity of joint-stock company accounts in 1900. This law resulted from and encouraged the diversification of share ownership, thereby propelling the further development of investment banking and of secondary trading in securities.

European Continent

Most of the European continent set up some form of universal banks. Universal banking, the combination of investment and commercial banking services within one institution, may take a variety of forms. Universal institutions range in size and complexity and may take on a variety of legal form from private partnerships to publicly-traded joint-stock firms. Historically, until a country liberalized incorporation and limited liability law—in most cases, at some point during the 19th century—nearly all of that country's financial firms remained private. Only banks with special concessions would have incorporated. The advent of limited liability and publicly-traded equity shares allowed risk spreading and further enabled financial institutions to grow and take on outside investors.

Belgium and the Netherlands

Belgium's long tradition in trade and its close connections with England, along with rich coal and iron resources, favored early industrial development. Indeed, Belgium

[12] See Davis and Gallman (2001), p. 174.
[13] Hawkins (2007).

imported its heavy industry directly from England starting with the continent's first steam engine in 1720. Even before its independence from the Netherlands in 1830, Belgium introduced the first large-scale mixed or universal bank. Founded by King William I in 1822, the Société Générale (S.G.) operated in its early years partly as the central bank and monetary authority and partly as the chief development bank. By 1834, S.G. had assumed the role of commercial bank as well, branching across the territory and providing savings accounts as well. The bank provided the blueprint for a number of similar mixed banks elsewhere in continental Europe. Other mixed banks, most notably the Banque de Belgique of 1835, appeared in Belgium in the later 1830s and thereafter. These two banks provided the majority of investment banking services that helped convert smaller private iron working firms into joint-stock companies that could raise the capital necessary to expand their scale of operations. Soon thereafter, the banks helped finance railroad building, steel production, and related industries of the mid-19th century.

In this early period of industrialization, mixed banks sometimes took large direct equity stakes in firms they promoted, and they also placed directors on the companies' boards.[14] A significant portion of these positions, however, originated in the financial crisis of the 1830s and the resulting conversion of bad loans from illiquid industrial borrowers. The practice proved risky and difficult to reverse because tight legal restrictions on the Brussels Stock Exchange kept many firms from trading there, and the banks therefore could not liquidate their positions. Some banks—the Banque de Belgique, in particular—were forced out of the investment side of the business for a time.

Stock market regulations finally relaxed in 1867.[15] Thereafter, the exchange grew rapidly, particularly after the liberalization of incorporation in 1873. The combination of the two forces naturally spurred the need for investment banking services: converting existing firms into joint-stock companies and floating their shares on the exchange. The

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[14] See Conant (1910), citing Banques d'Emission en Europe, Octave Noel, Paris, 1888, pp. 477-488. Van der Wee and Goossens (1991) and Van Nieuwerburgh, Buelens, and Cuyvers (2006) tell essentially the same story. See also Buyst and Maes (2008).

[15] See Van Nieuwerburgh, Buelens, and Cuyvers (2006) on the connection between stock market development and economic growth in Belgium.

largest mixed banks continued to provide the majority of these services for Belgium, and universality of one form or another remained the norm throughout the pre-war period.

In contrast to Belgium, the neighboring areas of the former Dutch Republic (Kingdom of the Netherlands), which now remain as The Netherlands, started out the 19th century considerably wealthier and more urbanized and literate due to its prior commercial success and naval prowess. Similar to the Antwerp merchant bankers, those in Amsterdam rose to prominence in trade finance and focused their investments on these shorter term lines of business and government bonds. Indeed, Amsterdam took over as the premier center for trade finance in the 17th century and kept that position throughout most of the 18th century. The Napoleanic Wars hit the Netherlands hard, dismantling its international trade business, dispersing the Amsterdam merchant banking community, and imposing enormous government debt.[16]

It is argued that the conservatism of the Dutch commercial elite, slowed the adoption of new technology well after the industrial revolution took root in nearby England and Belgium.[17] The Netherlands' extensive canals and waterways tended to make railroads less profitable, thereby removing one of the key 'engines' of continental industrialization, and its manufacturing base had resided largely in what was now Belgium. The country's lack of coal deposits and high interest rates may have further disadvantaged its industrial development.[18] The Netherlands eventually industrialized and developed active coal transport business serving the Ruhr as well as other industries. But its poorer neighbor Belgium rapidly overtook the Netherlands in GDP per capita and remained wealthier from the mid-19th century until the first world war.

Despite its early lead in merchant banking and financial markets, the development of modernized financial system, including incorporation and corporate governance laws, also lagged behind that of its neighbors. Few industrial firms went public, with the first few appearing on the Amsterdam Stock Exchange in the 1880s. Most stock was privately placed and traded unlisted. More finance came from private financing and retained earnings. But little heavy industry emerged in the Netherlands that would have required the capital that demanded large-scale public securities issues.

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[16] De Vries and Van Der Woude (1997).
[17] Mokyr (2000).
[18] The role of coal is still hotly debated among economic historians, with some finding it pivotal (see the recent paper by Fernihough and O'Rourke, 2014) while others (Clark) downplay its importance.

Firms could access short-term, rolled-over loans from a network of notaries, lawyers, and brokers who gathered funds from investors—the so-called *prolongatie* system.[19]

Numerous private bankers operated as brokers and investment bankers throughout the 19th century, mostly in Amsterdam, some descending from the original merchant banking families. Without an extensive domestic demand for investment banking services, many of these bankers helped channel significant volumes of Dutch financing into US railroad securities in the building boom of the mid- to late-19th century.[20]

Domestic industry and banking both began to pick up after 1895, and new stock issues appeared in the market. The banks provided investment banking services, underwriting new issues, but avoided long-term financing with their own resources and did not take direct equity stakes. The banks did place directors in the supervisory boards (similar to outside directors in a unitary board system) of some firms they financed and also maintained indirect relationships via associates holding seats on both a bank and industrial firm's supervisory boards.[21]

While joint-stock banks opened up in the Netherlands, such as the 1863 creation of the Nederlandsche Credit-en Deposito Bank (NCDB) in Amsterdam, the general lack of industrial clientele pushed their business toward Paris and elsewhere. In 1872, the Nederlandsche Credit- en Deposito Bank merged with the French Banque de Paris to form Banque de Paris et des Pays-Bas—commonly known as Paribas. The bank maintained its Amsterdam office as well as a number of Dutch members in its advisory council.

France

France began to industrialize somewhat after Belgium but well before the Netherlands. As in most other countries, investment-banking services first emerged in France among merchant families. This class of *haute banque* arose in stages, mostly from Protestant

[19] See De Jong and Röell (2005)

[20] See Veenendaal (1996) for a complete listing of American rail securities placed by Dutch bankers in the Amsterdam Stock Exchange up to 1914—including a number of fraudulent schemes.

[21] See Jonker (1991) and De Jong and Röell (2005) and Colvin (2014) and sources cited there.

and Jewish immigrants from Germany and Switzerland. Stoskopf (2009) enumerates a (non-exhaustive) list of three groups of Parisian *haute banque* families, arriving in waves from Germany (Rothschilds, d'Eichthals), Switzerland (Hottinguer, Mallet, Hentsch), and other regions with France (Fould, Perier). These merchant banks maintained close connections to the Bank of France and in some cases heavy interest in the issuance in the government's debt.[22] Beginning around 1830, and expanding particularly toward the end of the July monarchy (1848), these private, family-run firms joined together into investment associations and promoted many savings banks, insurance companies, industrial firms (especially in mining and metals), and railways.

With a new law in 1848 allowing incorporation of joint-stock banks, a wave of new banks appeared. The Comptoir National d'Escompte de Paris (CNEP) started in the fallout of the 1848 revolution to provide discount facilities to firms but built up an extensive investment banking business, underwriting both government and corporate securities. Soon after, the first investment bank of the Belgian type—and a key institutional innovation in investment banking targeted at industrialization—arose in the form of the famed Crédit Mobilier. Founded by the Pereire brothers in 1852, in a break from their long-standing relationship with James de Rothschild, the bank immediately became actively engaged in the promotion of industrial companies, particularly railroads and real estate, as well as shipping and even other financial institutions; notably one of the earliest German universal banks, the Bank für Handel und Industrie in Darmstadt. The bank engaged in industry reorganizations, such as that of Parisian gas companies and Loire coal and railroads.[23] The Crédit Mobilier took substantial equity in the companies it financed and also placed its associates on the companies' boards of directors.[24]

A number of joint-stock mixed or universal banks appeared following the Crédit Mobilier, a few of which took a leading role in the long-term finance of railroads and heavy industry in France and abroad: in 1859, the Societe Generale du Credit Industriel et Commercial (Credit Industriel); 1862, the Societe Generale de Credit Lyonnais (Credit Lyonnais); and in 1863, the Societe Generale pour Favoriser l'Indus trie et le Commerce de la France (Societe Generale).

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[22] See Stoskopf (2009) for definition of the haute banque.
[23] See Cameron (1953) and Paulet (2002).
[24] Details of these relationships appear in Paulet (2002).

The boom in investment/universal banking ended in liquidity crunch in 1866–1867. The Crédit Mobilier's highly illiquid position in its own real estate subsidiary proved the downfall of the bank and warning to others to proceed with greater caution. The combination of investment and commercial services subsided considerably after the crisis of 1867, and specialized investment banks began to operate alongside commercial and mixed banks in the 1870s. Most notably, the Paribas merger of 1872 brought together bankers from the Netherlands, Germany, Switzerland, and France, largely out of a desire to compete with the formidable Rothschild bank in the financing of France's enormous war indemnity to Germany. The bank maintained offices in all four of its 'home' countries and grew steadily into the leading investment bank in France. The bank underwrote or participated in underwriting consortia to finance governments and projects around the world, from China to Russia to Latin America. The bank developed a significant portfolio of industrial shares and built long-term relationships with the firms it financed. Although categorized as an investment bank, and earning a majority of its profits from intermediating new issues of a wide range of securities, Paribas also provided lending to industrial firms and asset management to clients. To raise larger capital issues, banks typically worked together in syndicates, including for example, CNEP, Paribas, and Credit Lyonnais. The financial crisis of 1882, brought on by the collapse of the Union Generale, led some banks—notably, Crédit Lyonnais and Société Générale—to shy away from less liquid industrial investments and to turn towards the short-term commercial lending model.

Germany

Like most of the European continent, particularly for a large and diverse country, Germany industrialized in a patchy manner starting from early in the 19th century (at this point still a collection of sovereign states), and it began developing faster with the railroad boom of the middle decades of the century. Private bankers, many descending from the early merchant houses, dominated the investment services sector in Germany until the late 1840s. Without a corporate population to underwrite, their investment banking operations revolved around government finance. In 1848, the Cologne bank of A. Schaaffhausen recovered from near collapse by restructuring into a joint-stock bank, and thus began the era of joint-stock universal banking in Germany. A series of similar banks opened in the 1850s, many of which failed in the succeeding two decades. These early universal banks participated actively in the financing of the first German railroads and a number of key industrial sectors, such as metal working and mining.

The country grew most rapidly from the early 1870s up to World War I. After defeating France in the Franco-Prussian War in 1871, Germany unified under one national government and soon thereafter liberalized company law, created corporate governance regulation. The early 1870s brought a new wave of joint-stock bank creation, many founded by private bankers wishing to expand their capital base, take on new lines of business, and spread their risk. In the early 1870s, new technology spawned new and renewed industries, e.g., in metals, mining, machine tools, and liberalized incorporation allowed a burst of new industrial corporations. A severe bust followed, bringing a period of many failures—of both banks and industry—and a 'great depression' that would last to some degree until the resurgence of the mid-1890s.

Following the bursting of the early 1870s bubble, in 1876, Germany set up a strong central bank, the Reichsbank, with lender of last resort facilities. Growth of the universal banking sector, particularly in joint-stock banking, accelerated with the renewed industrial growth of the mid-1890s. Joint-stock universal banks, particularly the larger ones, along with the leading private banking firms, provided the vast majority of investment-banking services for German firms and government bodies. The largest and most famous of these banks—such as Deutsche Bank, Dresdner Bank, Discontogesellschaft, and the Bank für Industrie und Handel (Darmstädter Bank)—became known collectively as the 'great banks' (Großbanken). Though the German universal banks have been credited with offering a venture-capital like set of financial and managerial services through all stages of development, more recent revisions of the historical accounts suggest that the universal banks' activities looked more like those of other commercial/universal banks of the time.[25] In underwriting, the banks—often working in a consortium or syndicate—usually bought the full value of an offering and then sold off the shares to clients and to the public. While the banks sometimes needed more time than planned to place shares, at least by the 1880s, these banks engaged rather conservatively in the holding of industrial equities for their own account.

Germany led in steelworks, electrical engineering and chemical technology, areas that benefited from scale production and therefore sought external capital. Many firms

[25] See Fohlin (2007).

in these industries converted to joint-stock firms and gained stock market listings between the late 19th and early 20th centuries. Most corporations used a consortium of joint-stock universal banks and private bankers to underwrite their stocks and bonds, and a significant portion returned to the capital market for secondary issues of stock. The active new issues markets of the period went hand-in-hand with growth of the universal banks, and together the system promoted a liquid secondary market in the decades prior to World War I.[26]

The universal banks, including some of the important private bankers, participated actively in the development of the German stock exchanges, most of which were operated by local chambers of commerce. Particularly for the largest joint-stock firms with listings on the Berlin Stock Exchange, ownership structure became quite dispersed and created a class of relatively well-off, minority shareholders. Through their commercial banking and brokerage activities, the banks developed custodial services, offering to keep clients' shares on deposit in the banks' safety deposit boxes (because they were unregistered, bearer shares had to be kept safe from fire and theft). In the process, customers often signed over their voting rights to their bank as proxy. Through this process, banks gained proxy voting rights over much more corporate equity than they actually owned, and thereby exercised significant voting blocks in the supervisory boards of some firms.[27] Banks and industrial firms built up networks of interlocking directorates, especially after the IPO boom starting in the mid-1890s.[28]

Starting with the Deutsche Bank in the 1870s, the universal banks gradually took on more and more demand deposits and opened up branches around the country. A large proportion of joint-stock banks engaged almost entirely in commercial banking activity and actively pursued retail deposit accounts. By the start of World War I, the joint-stock banks as a group maintained a financial structure quite similar to that of a

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[26] See Fohlin (2002) on stock market regulation, taxation, and connections to the growth of the universal banks; Gehrig and Fohlin (2006) on the trading cost improvements at the Berlin Stock Exchange between 1880 and 1910—particularly in the 1890s.

[27] German joint-stock firms (Aktiengesellschaften) maintained a two-part board: the executive board (Vorstand), appointed by the supervisory board (Aufsichtsrat), which itself consisted of of shareholder representatives, ostensibly elected by shareholders and their representatives by proxy.

[28] Fohlin (2007) provides extensive details. See also Fohlin (1998a and 1999). These studies show that the board seats most likely stemmed from new equity issues, as they appeared most in the largest firms with new issues of common stock floated on the Berlin Stock Exchange.

commercial bank and reported less than 20 percent of profits from investment banking and related activities. The largest universal banks averaged around 25 percent, and some of the most active earned a good bit more of their profits from investment banking—rates that naturally varied from year to year, depending on the viability of the new issues market and rates of industrial start-ups and conversions.[29]

Austria and Switzerland

Austria followed a very similar path to Germany's. The first Austrian universal bank, the Credit-Anstalt, was founded in 1855, similar to the German Bank für Handel und Industrie and the French Crédit Mobilier. A small number of similar banks appeared shortly thereafter, mainly in the Austrian portion of the empire. Like many of their counterparts in other countries, the large Austrian banks initially focused on railroad financing and remained primarily engaged in the conversion of large, relatively safe firms. On the commercial side of their business, they secured their credits with the best-quality securities. Thus, the banks' investment services tended to exclude smaller, potentially riskier ventures. The universal banks developed along the lines of the German institutions, with some equity participation and board memberships.

Swiss banking followed the more international merchant tradition, going back to the role of Geneva in international trade as early as the 14th century.[30] The merchant focus, like those in England, Belgium, Netherlands, and Italy, continued well into the 19th century. Moreover, early industrialists managed a substantial proportion of self financing. Yet like most of the continent, Switzerland faced the need for large-scale industrial finance with the onset of railroads and heavy manufacturing industry and began to set up large joint-stock banks by the middle of that century. Crédit Suisse, founded in 1856, followed the model of the French Crédit Mobilier with great success.[31] Later in the nineteenth century, a number of large banks created investment companies to help fund large industrial concerns, such as electrical companies. The leading Swiss

[29] See Fohlin (2007).
[30] Cassis (1994).
[31] Cassis and Tanner (1992).

banks—the likes of Crédit Suisse (Zurich), Swiss Bank Corp (Basel) and Union Bank of Switzerland—ultimately rose to global prominence in the second half of the twentieth century.

Italy

Although Italy followed a pattern of financial development quite similar to that of other European countries in the early nineteenth century, its industrial and financial development proceeded later and more slowly than that of its northern neighbors. It followed the familiar path of private merchant banking early on; but perhaps because of its lateness in developing large-scale industry, the demand for investment banking also lagged. Italy's first investment bank, the Banca Generale (B.G.), appeared only in 1871. The B.G. and the Credito Mobiliare Italiano were the leading investment banks until the financial crisis of the early 1890s. As in other countries, the investment banks tended to concentrate on metals, mining, and engineering; but having overinvested in the building sector, these and several smaller banks failed in the face of liquidity shortages from 1891 to 1893. In the following two years, coalitions of continental European banks—with heavy involvement from Germany—formed two new universal banks, Banca Commerciale Italiana (the Comit) and Credito Italiano (the Credit), both of which closely resembled their founders. The two banks engaged actively in investment banking, yet they balanced those services with a greater proportion of commercial business than had their predecessors. The Comit and Credit, particularly the former, obtained significant numbers of board positions and, as in Germany and Austria, focused on the largest firms. Their involvement with industry, however, spanned a broad range of sectors.

The universal banks made up one part of a broader financial system, and in fact in 1895, the largest four universal banks—dominated by Comit—comprised only two percent of Italian bank assets, and in 1911 about 15 percent. In Italy's thinner markets for industrial capital, the largest two universal banks held the largest concentration of financial assets, giving them greater market share and market power.

Japan

Japan launched into industrialization later than most of northwestern Europe, but it had already set the stage under the Togugawa regime with transportation and agricultural infrastructure. The Meiji Restoration of 1868 marks a natural political start to the country's new era of development, just as unification did in Germany and Italy around the same time. The Meiji government began developing legal and financial institutions to support industrial development in the 1870s and 1880s.[32] It privatized government factories in the 1880s and worked to develop a market-based economy, borrowing and adapting a variety of institutions from the United States and Europe. In 1882, the Bank of Japan began operation and instituted lender of last resort facilities.

Japanese banks formed as joint-stock corporations and provided a range of financial services, including securities dealing, but in the pre-World War I period they almost always stopped short of securities underwriting—the foundation of investment banking. These so-called 'ordinary banks' discounted bills, made advances on real estate, offered loans, and also traded in securities, gold, and foreign exchange. But they engaged to a minor extent in investment banking services in this period. Major banks underwrote public bonds and the small amount of corporate bonds that were issued.[33] They got involved in equity finance at most indirectly, lending extensively on collateral of corporate stock.

In the late 19th century, Japan's merchant families began to develop pyramid-style corporate groups, *zaibatsu*, controlled by a holding company at the top of the structure. The groups expanded and diversified into all manner of industrial enterprise and developed their own financial and insurance institutions. The zaibatsu families—notably the Mitsui, Mitsubishi, Sumitomo, and Yasuda groups—typically kept equity closely held, and financed investment internally, so that outside investors gained little entry into the groups' business. Thus, the family groups essentially mostly supplanted investment banks by placing equity internally and using their associated banks to access external funds via deposits.

[32] See the section on Japan (Miyajima and Yafeh) in Allen et al (2012). Also see Hoshi and Kashyap (2001) and Morck and Nakamura (2005).
[33] See Teranishi (2007).

Independent industrial firms, particularly those in the important cotton spinning industry and other light industries, often started out as joint-stock companies, but they also tended to be closely held by insiders in the industry and related merchants.[34] Compared to zaibatsu companies, however, they used more external finance, dispersed their ownership more, and took on large shareholders as directors. Many early industrial therefore initially placed their stock directly. When companies wanted to raise more capital and attract outside investors, they turned to successful and reputable merchants, sometimes known as 'business coordinators.' The latter operated much like a private investment banker would, supplying capital to the issuing firm, taking over the issue of the shares, and using their built up capital, reputation, and contacts to attract subscriptions from the ultimate investors.[35]

The most famous of the business coordinator/investment bankers is Eiichi Shibusawa, who worked his way up from farming origins to government service and then to lead the ministry of finance in the early Meiji years. In 1873 he took over leadership of the First National Bank (*Dai-Ichi Kokuritsu Ginkō*) and also founded a leading cotton spinning firm. Using his business success and government and finance connections, he began an active career in helping take industrial firms public, ultimately becoming one of Japan's wealthiest investors at the turn of the 20th century.[36] He also sat on the boards of many industrial firms, even when he no longer held personal equity stakes.[37]

Spurred by and, in turn, facilitating these new industrial stock issues, stock markets began developing in 1878 with the opening of the Tokyo Stock Exchange (another project aided by Eiichi Shibusawa). Many other exchanges opened and closed over the succeeding decades, and listings rapidly increased in the pre-World War I years.[38] Notably, the vast majority of listed stocks in the early years came from national banks, which were closely regulated with shareholder rights under the National Bank Act. Listings rose even more in the late 1880s, and railroads and textile companies began replacing some of banks in the market. Company law appeared first in 1893, but

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[34] See Teranishi (2007) and references cited there.
[35] See Allen et al (2012), section on Japan by Miyajima and Yafeh; Miwa and Ramseyer (2002); and Franks, Mayer, and Miyajima (2014).
[36] See Iishi (2007) and sources cited there.
[37] See Miwa and Ramseyer (2002) on the value of prominent directors on corporate boards.
[38] See Harmao, Hoshi, and Okazaki (2005).

it was the 1911 revision that instituted corporate governance regulations that most actively protected small, outside shareholders. In a context of poor legal protections for shareholders, markets remained locally oriented, with investors placing their capital in nearby firms that they could better observe.[39] By 1915, 160 companies listed on the TSE, representing a range of industries from energy (including the newly emerging electrical industry) to textiles to commodities, while nationalization of the main railroads in 1906 reduced the share of that industry.[40]

United States

From the start of the nineteenth century on, a range of intermediaries—merchants, industrial firms, incorporated commercial banks, private bankers, trust companies, lotteries, auctioneers, and brokers—provided some form of investment banking services. Indeed, one of the country's first banks, The Bank of the Manhattan Company, began in 1799 as an adjunct to the parent company's main business of water supply in lower Manhattan. The bank underwrote bonds to finance the Erie Canal in the 1820s. Similar financial institutions emerged from manufacturing and commercial enterprises in the early 19th century, notably Manufacturers Hanover Trust Company (cotton processing equipment manufacturer) and Chemical Bank (manufacturer of dyes, medicines, and paints).[41]

Specialized investment banks came to the fore in the 1850s and, responding to an immense demand for borrowing by the federal government, multiplied with the Civil War. The most prominent of the war financiers, Jay Cooke and Company of Philadelphia, started out in 1861 with Union war bonds and afterwards moved into railroad finance. The firm failed in the panic of 1873, but the founder's son-in-law

[39] Miwa and Ramseyer (2002). See also Morck and Nakamura (2005) for extensive literature on long-run history of corporate governance in Japan.

[40] See Harmao, Hoshi, and Okazaki (2005).
[41] See Carosso (1970) and JP Morgan Chase (2008).

Charles D. Barney reorganized the firm under his own name and took on his brother-in-law, Jay Cooke, Jr. as partner.

Many similar firms appeared over the late nineteenth century, but the most famous American investment banker is undoubtedly John Pierpont Morgan. J. P. Morgan, son of ex-pat London banker Junius Morgan, co-founded his first bank in 1860 and worked with a variety of partners over subsequent decades.[42]

A significant group of US investment bankers also evolved from European immigrant merchants, beginning in the mid- nineteenth century and growing to prominence after the Civil War: Kuhn Loeb, Seligman, Speyer, Goldman Sachs, and Lehman Brothers all from Germany; Lazard Freres from France. Most of the founders of these firms came to the US with little financial means, built up significant savings from peddling and dry goods businesses in active commercial centers around the country, and eventually translated their accumulated wealth into various lines of financial services—eventually moving to New York City. Lehman Brothers began in the 1850s as dry goods merchants and then cotton traders in Montgomery, Alabama. Although it participated in some investment banking activities, the firm focused on commodities trading until the early 20th century. Goldman Sachs, also started by a German immigrant, began life trading largely in commercial paper. Though Lehman Brothers and Goldman Sachs eventually grew to dominate the others, Seligman and Speyer started out as the most significant of the group.[43] And Kuhn Loeb ranked as the leading German-American Jewish private banker and second largest investment banking partnership in the pre-WWI period. These firms, along with several others, formed a close-knit German-Jewish business elite based in New York.[44]

United States law separated banking and commerce activities with the passage of the National Banking Act of 1864, under which nationally chartered commercial banks were technically prohibited from direct participation in investment banking activities. By the late nineteenth century, investment banking largely took place within specialized institutions in the United States, mostly private partnerships, though they worked with and often took stakes in commercial banks.

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[42] See Carosso (1987) for extensive details on the Morgans.

[43] The Seligmans, a family of 8 brothers, became a one-family, multi-product, internationally-branched financial company.

[44] See Supple (1957).

However much the US law worked against the creation of straightforwardly universal banks, entrepreneurial individuals continued to form a variety of institutions that replicated universal banking in its primary services and effects. The investment bankers themselves formed close ties with commercial banks; often owning stock in them or sitting on their boards, in order to insure their access to short-term loans to cover operations during a flotation of securities. In this sense, J.P. Morgan and Co. stands out as the preeminent example of American quasi-universal banking in the pre-WWI era, perhaps acting even more like the stylized view of a German universal banker than the Germans ever did: providing abundant capital to firms with which it had close relationships and monitoring the management of the same.[45] Morgan operated in cooperation with the First National Bank of New York,

Moreover, quasi-universal banks formed through the integration of investment subsidiaries into commercial banks. These banks typically sold shares to their affiliated companies by attaching them to their own shares, which then allowed the bank to engage in a wide range of non-banking activities, including but not limited to securities underwriting, brokerage and investment.[46] The commercial banks really launched into investment banking most significantly after World War I, and a relatively small number of commercial banks created security affiliates (10) or bond departments (62).[47] Still, the largest bankers in the principle commercial centers did engage in investment banking.

As in the early 19th century, corporate firms continued to own controlling stakes in commercial banks, and private investment banking firms collaborated with commercial banks. In one notable example, the Rockefellers took a substantial stake in National City Bank. After James Stillman's sister married William Rockefeller, the brother of John D. Rockefeller and co-founder of Standard Oil and Amalgamated Copper, he became president of the bank. City Bank grew rapidly into a Wall Street force, the largest bank in the city as of 1893, and a lead underwriter of the Union Pacific

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[45] De Long (1992). See Carosso (1987) on the Morgans.

[46] See Haubrich and Santos (2003) for a survey of the variety of ways of mixing banking and commerce in the United States over time.

[47] See White (1986), based on national banks at least. Also complicating the overall picture of an increasingly universal system, by some accounts (see Lamoreaux, 1991) the earliest participants in quasi-universal banking, the New England Banks, transitioned towards more specialized commercial banking at the same time.

reorganization in 1895. Stillman held seats on over 50 corporate boards in the early 1900s, including major rail lines of the Harriman system, and the bank functioned as the main bank of Standard Oil—earning it the title "Oil Bank."[48] When Stillman resigned from the directorate and executive committee of Harriman's Union and Southern Pacific lines in January 1908, Stillman appointed his vice chairman at City, Frank Vanderlip, to succeed him.[49] At the same time, City Bank collaborated regularly with the investment house Kuhn Loeb—tying the banking interests via stakes in many underwriting syndicates and corporate stock pools.

Non-bank financial services companies, such as insurance companies and trust companies, also invested heavily in corporate firms and participated in underwriting syndicates. The latter group became the most actively 'universal' of all the various institutions, as they operated free from the regulations that hamstrung chartered banks.[50] Trust companies provided depository and trust accounts, commercial banking services, and investment advisory to wealthy clients. In this capacity as fiduciaries and savings banks for wealthy clientele, they entered into higher-risk, higher-return investments than did the typical savings bank of the time: holding portfolios of industrial securities and lending on collateral of stocks and bonds. Trust companies also moved into investment banking activities, such as securities issues and placement, and mergers and acquisitions.[51] As trust companies expanded their mix of services, they eroded the market share and profitability of commercial banks in the same markets. The lax regulation on trust companies, however, encouraged many new institutions to take on that form instead of chartered bank.[52] The competition from trusts, pushed commercial banks to seek new avenues for profits and spurred their move into investment banking services.

Thus, when considering the range of institutions engaged in investment banking activities, along with the interconnectedness of private investment banking firms with

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[48] See the obituary of James Stillman in the New York Times (March 16, 1918), http://query.nytimes.com/mem/archive-free/pdf?res=9403E0DF103BEE3ABC4E52DFB5668383609EDE, retrieved from nytimes.com on August 3, 2014.
[49] Los Angeles Herald, January 26, 1908, "Stillman Resigns from Harriman's Directorate."
[50] See Neal (1971) and White (1986), as well as Barnett (1911) as a contemporary observer.
[51] See Carosso (1970), citing an article in the Commercial and Financial Chronicle of October, 1900.
[52] Barnett (1911), p. 234-5, notes that new institutions almost exclusively chose the trust form in some states, especially in Massachusetts.

commercial banks, it appears that by World War I, most US corporations financed through universal-type (or quasi-universal) institutions.

IV. Financial Regulation, Deregulation, and Re-regulation: 1920's to the present

By the time World War I hit, essentially all industrialized countries had developed investment banking of a modern type, and a large proportion of these systems involved universal or mixed financial institutions of some sort along with financial markets in which investment bankers operated.[53]

World War I reshaped global politics and political boundaries and with it the global financial system. The upheaval of the war led to a protracted period of dislocation in international capital and money markets and created enormous debt burdens on combatants. In some countries, the turmoil led to hyperinflation or banking and financial crises and in turn prompted consolidation in the banking industry and government intervention and financial regulation. At the same time, new issues markets expanded rapidly in many countries, spurring new business for investment bankers over the 1920s. The boom of the later 1920s ended with the 1929 crash and the global depression of the 1930s and ushered in an era of financial regulation that lasted for most of the rest of the 20th century.

The largely stable period following the post-World War II reconstruction prompted most financial authorities to loosen the reins on financial markets and institutions, yielding a wave of international 'conglomeration' of financial services into large-scale multinational universal-investment banking groups. The global financial crisis of 2007-08 raised new concerns over the regulation of the investment banking industry and of the financial products it produced as well as the increased linkages between investment banking activities and consumer, deposit-oriented banking. Thus, new regulations and regulatory authorities appeared in the years following the crisis with the intent of mitigating the impact of risky investment banking activities on the rest of the financial system and the economy.

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[53] Fohlin (2012) provides long-run patterns of financial system development for all of the countries for which data exists by 1914.

The 1920s to 1980s: Government regulation era

Already before the 1929 crash, legislators had grown concerned over the power of investment bankers in the industrial economy. Particular unease surrounded the matter of permitting commercial banks to engage in investment banking activities—that is, allowing universal banking or not—and also whether to allow financial institutions to engage in corporate ownership and control. In some places, regulators and the general public raised such concern over the combining of investment with commercial banking, and the attendant mix of retail deposits and equity funding, that the functions were split. The United States, most famously, split investment and commercial banking under the Glass-Steagall Act of 1933, on the argument that the securities affiliates of commercial banks had duped investors and converted the commercial banks' bad loans into equity shares that they could pawn off on their securities customers.[54] The 1956 Bank Holding Company Act extended restrictions on banks, making it even harder for commercial banks to engage in investment banking (or to operate across state lines). Belgium, Greece, Italy, and other countries also enacted similar provisions, also in attempts to protect retail bank customers, depositors, from the potential conflicts of interest and risk that many saw arising between investment and commercial banking activities. Belgium, which had pioneered the creation of universal banking in the 1830s, essentially banned the practice in its 1934 banking 'reform' law, based on the widespread view that the large banks exerted excessive control over industry.[55] Japan continued to allow investment activities within commercial banks until after World War II, when it enacted its 1948 Glass-Steagall-like law to separate these functions.

Likewise, on the corporate governance issues, in most places, directors with financial expertise, notably investment bankers, participated in the governance of corporate firms. Of course, some systems took the banking involvement to a more extreme level than others. In the US, where the largest investment banks had placed

[54] See White (1986) and Kroszner and Rajan (1997) on activities US Investment banks v. investment banking "affiliates" of commercial banks.

[55] According to Buyst and Maes (2008) (see references cited there), at the start of the Great Depression, the Société Générale controlled the entire Belgian copper industry, about two-thirds of the zinc industry, half of the iron and steel sector, and nearly half of the glass industry. They also indicate that the two top banks—Société Générale and Banque de Bruxelles—together held half of Belgium's banking assets at the time.

their own directors and personnel on the boards of railroads and industrial firms in which they held significant interests, the interlocking of directorates grew extensive and tangled and also involved directors and associates of commercial banks, trust companies, and insurance companies. Similar types of interlocking directorates built up in most parts of the world and also involved cross-representation among industrial firms. In some countries, these interconnected groups stemmed from family origins, as in the well-known case of the Japanese Zaibatsu and involved extensive cross-ownership among financial and non-financial firms.

Regulations targeted these relationships to varying extents in different countries, mostly depending on the level of popular agitation against the perceived power of industry and finance. Again, the United States led the charge in restrictive regulation. Trust-busting activity in the US began along with the first waves of industrial mergers at the turn of the 20th century. Public antagonism against the 'Money Trust' simmered for years and in the aftermath of the Panic of 1907 led to the appointment of the well-known Pujo Committee in 1912. The committee's report spurred the passage of the Clayton Antitrust Act in October 1914 and earlier in 1914 contributed to the resignation of J.P. Morgan and his partners from many of their corporate board seats. The Clayton Act banned interlocking directorates among competing firms, which with the proliferation of competing railroad lines in the late 19th and early 20th century had arguably become a tool of coordination by the various investment banking groups. Bankers and other financiers continued to hold board positions, and some even held positions that seemed contrary to the new law. Germany, by contrast, imposed little if any regulation on the corporate governance activities of its universal-investment banks, and interlocking directorate networks proliferated there after World War I and grew to nearly mythic proportions until the 1990s.[56]

The new universal banks and formation of banking conglomerates: 1980s-2007

Already by the 1960s and 70s, financial institutions began the process of expanding and combining into financial conglomerates. The process meant enlarging both scale and scope of financial institutions. In countries that had retained universal banking from the

[56] See Fohlin (2005, 2007) for extensive details on Germany's financial and corporate governance history.

pre-war era, this process followed the growth of the organizational units within the existing bank, often through the absorption of other financial institutions. Most countries underwent renewed merger activity, creating large financial conglomerates. In countries that had split investment and commercial banking, that legal wall began to erode, as global competition in financial services pressured governments to liberalize and allow their domestic institutions to compete worldwide.

The parallel processes of deregulation and amalgamation placed a large proportion of investment banking worldwide into universal institutions.[57] The new universal banks of the late twentieth century, however, bore little resemblance to those of the previous century. The formation of large holding companies allowed the creation of banking conglomerates providing virtually all manner of services, investment banking among them, but in which the various components operated mostly independent of each other.

The developments reached even the most traditionally specialized system of them all, England, with the 'Big Bang' financial deregulation (officially the Financial Services Act of 1986). The new law opened up the London Stock Exchange to international competition and allowed a broader range of activities, including proprietary trading. The Big Bang resulted in many mergers among financial services firms and acquisitions by foreign investment banks and produced large-scale universal banks for the first time. At the same time, the expanding scale of pre-existing universal banks in places like Belgium and Germany tended to separate investment banking operations from commercial banking operations within the same financial conglomerates.

The United States financial sector underwent dramatic change over the period. Commercial banks for years lobbied to end Glass-Steagall, in particular to be allowed to engage in the more profitable lines of investment banking business. The most significant breach in the law came in the late 1980s, when the Federal Reserve loosened its interpretation of the law to allow commercial banks to engage in limited investment banking activities, at first underwriting commercial paper and, beginning with relatively benign municipal bonds. The unraveling of Glass-Steagall accelerated after the transfer

[57] Of the 26 countries examined in Fohlin (2012), all financial systems that combined at least some investment banking within universal banks prior to World War I did so in the 1990s, even in cases where investment banking had been legally separated from commercial banking in the interim.

of Fed leadership from Paul Volker to Alan Greenspan in 1987: the regulators expanded both the scale and scope of activities allowable to commercial banks. With pressure from the financial sector mounting over the years, and with de facto activities already moving toward universal banking, the US formally ended Glass-Steagall separations with the Gramm-Leach-Bliley Act of 1999. The new law yielded few significant changes in the organization of investment banking services, as most of the adoption of securities affiliates had already taken place under earlier exceptions to and reinterpretations of the Glass-Steagall law. While a few commercial banks created new financial holding companies to incorporate securities operations, the specialized investment banks steered away from financial holding company status—and the accompanying regulation and supervision. Introduction of the Euro after 2000, along with related mergers and acquisitions in securities markets globally, spurred further consolidation in the financial industry.

Over the latter decades of the 20th century, investment banks (and investment arms of universal banks) also developed new kinds of business, most of which represented new varieties of long standing products involving securitization and derivatives. New varieties of financial institutions also emerged, typically in the form of smaller private partnerships offering venture capital/private equity and hedge funds. Eyeing the success of some of these firms, some investment banks and financial conglomerates created subsidiaries or departments to perform these functions as well.

Many of the specialized investment banks did change their legal structure during this period, most shifting from private partnerships to publicly-traded joint-stock corporations by the late 20th century. The joint-stock form brought new funding sources and limited liability, enlarging the scale of the investment banks and of deals in which they could engage. The limited liability may also have increased the risk of investments and trading strategies undertaken by investment banks. While private investment banking partnerships remain, they tend to cluster in boutique areas, and some of these ostensibly private banks actually operate under public holding companies.[58]

[58] For example, one of Germany's oldest private banks, Metzler, is a subsidiary of B. Metzler seel. Sohn & Co. Holding AG, an Aktiengesellschaft or joint-stock corporation.

The new era of financial regulation: The global financial crisis of 2007-08 and beyond

The global financial crisis starting in 2007 and deepening throughout 2008 set off a wave of restructuring of financial institutions around the world. The crisis led directly to the failure of a number of prominent investment banks and related institutions, and the near insolvency of many others that were bailed out by governments or taken over in mergers and acquisitions. The crisis raised new concern over the structure, scope, and scale of financial institutions, in particular the mixing of investment banking with commercial banking and the increasing difficulty in unwinding too-big-to-fail institutions that became insolvent. Notably, however, the three US financial institutions most heavily implicated in the beginning of the financial crisis—Bear Stearns, Lehman Brothers, and Merrill Lynch—had all retained independent investment bank status. The US investment banks that remained after the crisis, such as Morgan Stanley and Goldman Sachs, quickly converted into financial holding companies in order to access a greater range of funding sources as well as the Federal Reserve's discount window. And many troubled institutions were merged into healthier ones or forced into liquidation. Thus, the fallout of the financial crisis tended to increase the size and scope of global financial conglomerates and to continue the process of globalization of institutions.

As with the financial crisis of 1929, the crisis of 2008 brought new, far-reaching financial regulation. Most notably, in the US, the Dodd-Frank Act of 2010 stipulated a new array of rules and regulations on financial institutions of many types. For the investment banking industry, one of the key provisions of Dodd-Frank was the Volcker Rule, which would force banks to divest most of their hedge fund, private equity, and proprietary trading (trading for the bank's own account) businesses. The law also regulates derivatives and forces them into more transparent, public trading. The implementation of the complex law has proven difficult, and as of 2014 remains in progress. Likewise, the European Commission has promulgated its own version of several key provisions relating to proprietary trading and hedge fund activities of Europe's large, systemically relevant financial institutions—which in Europe, generally means universal-investment banks of global scope, such as Deutsche Bank, Barclays, and Credit Suisse. Related regulation to increase bank capital adequacy under Basel 2.5

generally cuts into banks' return on equity, but disproportionately hits investment banking due to risk weighting of assets.[59]

Investment banking in the 21st century continues to be a global industry, in which the leading institutions provide wide-ranging financial services in all regions of the world within a financial conglomerate organizational structure. Despite the long history of debate in the United States over allowing the combination of investment and commercial banking, US financial conglomerates, or universal banks—all stemming from one or more of the leading investment or quasi-universal banks of the 19th century—hold the top positions in all areas of investment banking services as of 2014.[60] For the first half of the year, JP Morgan, Bank of America Merrill Lynch, Goldman Sachs, Morgan Stanley, and Citi ranked 1st through 5th in fees, taking in between $2 and 3 billion in fees.

As investment banking has grown into a multinational business, many global financial firms have entered markets around the world, both highly developed and still emerging. In many emerging economies, investment banking has mostly taken the form of government-owned institutions or subsidiaries of foreign and multinational financial institutions, though local institutions have also emerged. In Brazil, for example, the chief investment banking institutions in the 2000s were the Swiss giants UBS and Credit Suisse. US investment (now universal) banks have also launched operations there. But domestic Brazilian institutions, such as BTG Pactual and Itaú Unibanco began to build up their own operations, and government-controlled institutions Banco do Brasil and Caixa Economica Federal are also taking a lead.

V. Conclusion

Investment banking taken generally to mean the financing of long-term capital needs, came into being with the merchants of medieval trade routes. In almost all developed economies of the world, even those developing late in the 19th century, investment bankers emerged from merchant roots. The provision of investment banking services has come from a variety of institutions over time and across countries. Products and

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[59] See http://www.bis.org/publ/bcbs/b3prog_dom_impl.htm (accessed August 30, 2014) for details on the varied implementation of Basel II, 2.5, and III around the world.

[60] See Financial Times League Tables for investment banking services at http://markets.ft.com/investmentBanking/tablesAndTrends.asp, Accessed August 5, 2014.

services have evolved to include complex, often derivative, securities, and the legal regulation of investment banking has often changed abruptly, particularly in the last 100 years. Thus, even well-known investment banking names that have endured over the centuries bear little resemblance to their ancestors.

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