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Keynote Talk

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The United States has a single integrated capital market based in New York. It is large in comparison to the capital markets of other countries, including most European countries. My task is to give some insight into how that came about. This is of interest to Europeans in part because the U.S. has a federal system in which policy formation and regulation are shared responsibilities between the federal and state governments.

One might imagine that the U.S. was able to create a single financial market despite its multiplicity of jurisdictions because federal law cleared out state-level impediments to the creation of a single capital market and integration followed. But that is not correct. In fact, integration was well advanced by the time the federal government became interested in capital markets in the aftermath of the Great Depression of the 1930s. Market forces were the principal driver behind the emergence of a large and integrated capital market.

At the end of the first decade of the 20th century, 90% of trading in U.S. equities took place in New York. By the mid-1920s, the companies traded on the largest exchange, the New York Stock Exchange, had an equity capitalization equal to nearly one-third of U.S. GDP. The first federal law regulating primary securities markets, however, was not enacted until 1933 and the first federal law regulating stock exchanges and listed companies was enacted in 1934.

How, then, did a single capital market develop at a time when each state had its own commercial and company law and the federal government had not yet asserted regulatory jurisdiction over securities markets? I will set the stage by noting the powerful material forces pushing in the direction of capital markets integration. From at least the time of the completion of the Erie Canal in 1825, the United States had an extensive network of low-cost transportation connecting the cities and farms of the interior with the coastal port cities, of which New York was the most important.

Where trade in goods went, trade in commercial paper and other short-term credits naturally followed. Because the United States had a highly decentralized banking system with thousands of banks, information about the creditworthiness of businesses was also decentralized. This created a demand for information providers who gathered data about debtors and sold them to creditors. This credit rating system became one of the ways in which the creation of a national market in short-term credits paved the way for transactions in longer-term debt and ultimately equity securities.

U.S. businesses were enormously capital-intensive at the time. Important industries such as railroads, electric utilities, and natural resources companies engaged in frequent capital projects. The projects were often large enough that a decentralized banking system lacked the capacity easily to finance them and so business turned to the securities markets. As repeat players in the debt and equity markets, they had a strong interest in their perceived integrity. The brokers who owned the New York Stock Exchange recognized that a reputation for fair dealing was a major competitive advantage. Once gained, that reputation enabled the NYSE to grow at the expense of less established exchanges.

There is also a demand side explanation for the rapid growth of capital markets in the United States. In the late nineteenth and early twentieth centuries, a growing middle class was in search of long-term investments as it saved for retirement, unexpected medical expenses, and post-secondary educational expenses for children. These were individual responsibilities. In Europe today, of course, these are seen as collective responsibilities funded on a pay-as-you-go basis through taxation rather than through individual

savings. Thus arguably an important driver of the growth of capital markets in the United States is not present, although there does seem to be a growing demand for individual retirement accounts.

Law is present everywhere in securities markets. The rights attached to a share of stock are determined in large part by company law. The rights attached to a debt security are determined by commercial law, including the law of contracts, negotiable instruments, security interests, and bankruptcy. Laws governing information disclosure, fraud, and contracts are essential parts of the organization of stock exchanges and other centralized markets. Legal differences among jurisdictions can therefore impede the creation of a securities market that spans multiple jurisdictions.

The fact that the American states came from a single legal tradition—in this case, English law—meant that the differences in specific legal rules from one state to another were modest and manageable. One important example is the law of negotiable instruments. Securities are intended to be easily transferable from one investor to another and indeed they must be in order to serve their purpose. In order to be tradeable, the rights of a holder must be clear from the face of the instrument and the applicable legal rules without inquiring into the details of prior transactions in the same instrument or between prior holders of that instrument. Equally important, those rights must be the same regardless of the location of the holder. If a holder of a security in one jurisdiction has different rights than a holder of the same security in another jurisdiction, then the security may not trade at the same price in both places.

Fortunately, the law of negotiable instruments was almost entirely uniform in the United States from the nineteenth century onward. This was not the result of a top-down imposition of uniform standards. Instead, it reflected an important aspect of U.S. legal culture. Like England's, ours was at that time a largely judge-made system of law. And judges were drawn primarily from the ranks of distinguished legal practitioners. The commercial law that they developed was attentive to commercial practice and practical needs. Rules regarding negotiable instruments had evolved over a long period to reflect commercial practice and did not vary materially from one state to another.

As is well known in Europe, it is not always necessary that rules be uniform so long as they are harmonized—that is, so long as a firm is not subject to multiple, conflicting rules on the same subject matter and can know which rule governs in a given situation. And fortunately for American finance in the nineteenth and early twentieth centuries, this was the case on some vitally important rules relating to corporate securities. This was because of the way so-called "choice of law" rules operated.

Imagine, for example, that a Massachusetts resident and a New Jersey resident negotiate and sign a contract in New York. In case of a later dispute over that contract, each of those three states might plausibly claim an interest in having its law resolve the dispute. Choice of law rules tell the judge, whether located in Massachusetts, New Jersey, or New York, which state's law he or she should apply.

Importantly, at the time of interest to us, all states followed a choice of law rule called the "internal affairs" doctrine, which held that a corporate firm is subject to the corporate governance rules of its state of incorporation, regardless of where its operations, officers, directors, and shareholders might be. This guaranteed that, for example, the voting rights attached to a share of stock in a corporation could be known with certainty and would not change as that share changed hands from a seller in Ohio to a buyer in Illinois or as the company expanded its operations from its home state to others.

What about the debt markets? Here, too, all states recognized a choice of law rule that facilitated a national market in debt instruments. A bond is a contract. The choice of law rule for contracts was that the law of the place of formation governed the interpretation of the contract. Bond contracts were typically entered into between the issuing company, which could have been located anywhere, and a New York-based trustee. The contract was created in New York and therefore any litigation involving it, wherever initiated, would apply New York law.

Indeed, in this instance it was not only helpful that it was easy to determine which state's rules would govern. It was also helpful that the state that held the largest commercial center also became the financial center. New York's courts became highly knowledgeable and proficient in commercial disputes which helped them develop a predictable and user-friendly body of law relating to disputes between buyers and sellers of securities.

It is at least arguable that the U.S. federal structure helped create uniformity in choice of law. State legislatures occasionally tried to regulate out-of-state transactions. Prior to the New Deal era, the federal courts frequently invalidated those regulations as inconsistent with the federal constitution. But while federalism was a sufficient condition for judges to block a Georgia legislature's attempt to regulate transactions taking place in Pennsylvania, it was not a necessary condition. Here again, judges throughout the United States shared a common legal culture incorporating a common set of assumptions. One of those assumptions was that a contractual right vests at the time and place of the formation of that contract. A later lawsuit in a different jurisdiction could provide a remedy for the deprivation of a vested right but could not alter it. That this was a fundamental, shared judicial assumption about the nature of law rather than a feature of the U.S. federal system is evidenced by the difficulty federal courts had in identifying the federal constitutional basis for their choice of law decisions.

What about disclosure rules? It is difficult for investors to price securities of different companies if the information they receive from them is not comparable. There was no nation-wide system of government-mandated disclosure prior to the mid-1930s. However, each stock exchange had comprehensive listing standards that included ongoing disclosure obligations. As a result, there was comparability between firms traded on the same exchange but not between firms traded on different exchanges. However, there was also a strong clientele effect. Because it was located in the nation's financial center and had the most stringent disclosure rules, the New York Stock Exchange attracted the largest and most established companies. Younger, smaller companies often began their existence on regional exchanges with less rigorous and therefore less costly disclosure standards.

The determination of accounting and auditing standards was left to the accounting profession itself. Here, too, a shared sense of professional mission contributed to the harmonization of accounting standards. The growth of the accounting profession in the United States was to an important extent a function of cross-border investment. European capital flowed into U.S. investments during the nineteenth and early twentieth century and the distant providers of capital wanted to know how their money was being used. This created a demand for accountants who would audit a company's books to look for evidence of fraud or waste. This early accounting system was more principles-based than rule-based and gave managers significant discretion with respect to balance sheet valuation. Thus financial statements were less comparable from one company to another than they are today.

The federal government's decision to regulate securities markets further concentrated securities trading in New York, but the welfare consequences are certainly debatable. The Securities Exchange Act imposed two important regulatory burdens on stock exchanges. Every exchange had to register with the newly-created Securities and Exchange Commission and its rules and procedures became subject to SEC oversight. The statute also imposed a uniform national set of disclosure rules that essentially replicated the NYSE's disclosure rules, which were more stringent than those of many of the regional exchanges.

Many regional exchanges found themselves unable to bear the cost of compliance with the federal regulatory system. Just before the Securities Exchange Act went into effect in 1935, there were 41 stock exchanges in the United States. Only 20 survived until 1938. A similar phenomenon occurred with respect to broker-dealers; those based in New York were more likely to survive the implementation of the new regulatory system than those outside New York. While New York's financial sector gained market share in the wake of the federal regulatory system, it is not obvious that this was beneficial to investors.

The federal regulatory system also resolved a debate within the accounting community about whether assets should be recorded at market value or historical cost. The SEC had a strong and clear preference for historical cost accounting and imposed that preference on all publicly traded companies, thereby enhancing the comparability of financial statements.

I should also say a few words about clearance and settlement, which also played an important role in consolidating the securities industry and facilitating greatly increased trading volumes. In a 3-year period in the late 1960s, equity trading volumes more than doubled, creating the so-called "paperwork crisis" in which the paper-based clearance and settlement system could not keep up with transaction volume. Exchanges and broker-dealers responded by investing in technology, including the relatively new technology of computers, and made organizational and management changes. These were subject to substantial economies of scale. The result was consolidation; roughly a sixth of the NYSE's member brokers disappeared through liquidation or merger during 1969 and 1970. At the same time, the over-the-counter market, which was large and highly decentralized, began a process of automation and organization that ultimately resulted in its centralization in New York.

This process of integration was evolutionary and driven by the needs of investors, brokers, and exchanges. The NYSE created an in-house custodian to immobilize shares and settle transactions through book entry. In this respect America was well behind Europe, where book-entry settlement was already a half-century old. Although conceived in 1964, the NYSE's Central Certificate Service was not operational until 1969.

Commercial law initially impeded rather than facilitated market integration, but state legislatures responded quickly to the markets' needs. At the outset of the move toward central custodians, commercial law assumed that beneficial owners would physically possess shares and it therefore recognized transfer by delivery of a certificate with proper endorsements. In order to facilitate book entry transfer, each state had to accept the concept that an investor obtains rights to a security through an entry on the books of a financial intermediary. Fortunately, the states had a longstanding method of revising and harmonizing commercial law as necessary. The Uniform Law Commission, a nonprofit entity whose members are practicing lawyers, academics, and judges, promulgates proposed uniform legislation. In 1962, it proposed a legislative change permitting book entry transfer, which was gradually adopted by all 50 states. Additional changes were needed to permit institutional investors to make use of book entry transfer. State and federal regulation of banks, insurance companies, pension plans, and mutual funds often required that they hold physical custody of the securities they owned. These regulations also had to be revised to facilitate centralized custody and settlement. But once done, the creation of a centralized depositary in New York contributed to the integration of the equity markets.

The final step in this process was the creation of a more organized over the counter market. In 1971, the National Association of Securities Dealers, the industry association and self-regulator for the OTC market, created NASDAQ as a centralized quotation system for that market. Having all dealer quotations in a single computer network also facilitated the creation of a nationwide OTC clearing operation. Equally important, a group of brokers and banks created the Depositary Trust Company, a centralized clearing and settlement system not associated with any single exchange or market, in 1973. DTC introduced continuous net settlement across markets, thereby reducing the number of trades that had to settle financially. In 1977, DTC took over the clearance and settlement operations of the NYSE, American Stock Exchange, and NASDAQ. Over the next two decades, DTC absorbed the clearinghouses of all of the remaining regional stock exchanges, enabling the industry to reduce the settlement cycle from 5 to 3 business days and cutting the cost of clearing and settling a trade from 82 cents in 1977 to less than 5 cents in 2002.

In this area, too, federal regulation followed rather than led market developments. In 1975, after the creation of DTC and NASDAQ, Congress for the first time urged the SEC to play a leading role in market structure, clearing and settlement, and the dissemination of trade and quote data.

What are the lessons of this history for Europe? In my view, it is that the creation of an integrated capital market in the U.S. was principally a bottom-up rather than a top-down phenomenon. It was driven by issuing companies, brokers, and investors. That is not to say that policy decisions played no role. From the U.S. founding to the early twentieth century, American voters and politicians outside the major commercial centers were deeply suspicious of banks. Thus states kept banks deliberately small and numerous by prohibiting branching. An entirely unintended consequence was to create space that the capital markets quickly filled. But the record of using policy deliberately to facilitate capital markets integration is mixed at best.