ARTICLES

FINANCIAL INNOVATION AND RECENT DEVELOPMENTS IN THE FRENCH CAPITAL MARKETS*

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1. INTRODUCTION

The purpose of this article is to examine the process of financial innovation and the role of fiscal incentives in accelerating the development of capital markets. This exercise will provide a framework to analyze and evaluate the recent developments that took place in the French capital markets over the eight-year period from 1978 to 1985.

Section 2 is devoted to a brief presentation of the general features of the French capital markets in comparison to those of Japan, the United Kingdom, and the United States. An examination of the process of financial innovation and the role of fiscal incentive schemes is presented in Section 3. This discussion is followed in Section 4 by an analysis of recent financial innovations and an evaluation of the French experience in Section 5.

2. THE FRENCH CAPITAL MARKETS

The French capital markets are small in comparison to the world's three largest domestic markets — those of the United States, Japan, and the United Kingdom (listed in decreasing order of market size).1 Tables 1 and 2, in the Appendix, provide the most recent comparative statistics on the size and activity of organized equity and bond markets in these four countries. Table 3, in the Appendix, gives statistics on the

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1 See, e.g., ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, OECD FINANCIAL STATISTICS PART 2, FINANCIAL ACCOUNTS OF OECD COUNTRIES (1985).

2.1. Composition

2.1.1. The Equity Market

The comparative size (total market capitalization) of French domestic equity markets has changed significantly since the beginning of this century. At the onset of the First World War, the French equity markets accounted for 16% of the world’s equity market capitalization.2 Seventy years later, in 1985, France’s contribution to the world’s equity market capitalization dropped to only 1.5%.3 Over the same seventy-year period, the market capitalization of British equity decreased from 20%4 to 6.4% of the world’s equity market capitalization5 whereas that of the New York Stock Exchange (NYSE) rose from 25%6 to 35%.7 A more significant indicator of comparative market size across countries is given by the ratio of total market capitalization to Gross National Product (GNP).8 This ratio is roughly the same for the United States (51% for NYSE only), Japan (60%), and the United Kingdom (49%), but is considerably smaller in the case of France (11%).9 It is interesting to note that the market value of IBM stock alone is greater than that of all French common stocks.10

The current government, elected in March 1986, has launched a program of denationalization (privatization). This program, however, will be gradually implemented over a five-year period. The market expectation in late 1986 is that the denationalization program will not adversely affect the stock market, which is believed to be quite capable of absorbing the new stock issues the government is ready to sell to the

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3 Table 2, in Appendix; see also Metais, Equity Finance in France after the Monory and Delors Reforms, THE BANKER, Apr. 1985, at 97-105. “The minor role of the financial markets in France, which dates back to the First World War, has many explanations. The most frequently cited are the strong liquidity preferences of French savers — the result of creeping inflation — and their aversion to risky assets, such as industrial shares, to which they have long preferred various savings accounts, bills, property and gold.” Metais, supra, at 97.
4 See de Witt, supra note 2, at 50.
5 Table 2, in Appendix.
6 See de Witt, supra note 2, at 50.
7 Table 2, in Appendix.
8 See Metais, supra note 3, at 97.
9 Table 1, in Appendix.
10 The market value of IBM stock, based on the share price as of March 21, 1986 and multiplied by the latest available shares outstanding, is US$ 91.697 billion. A Profile of the Top 1000, Bus. Wk., Special Issue, 1986, at 62. The market value of all French common stock is US$ 79.096 billion. Table 1, in Appendix.
public.

2.1.2. The Bond Market

In France, the bond market, which includes securities issued by the government, state-controlled firms, and private companies, is larger than the equity market.\textsuperscript{11} From 1949 to 1965, the average annual interest rate on new bonds issued by the French government and firms in the state-controlled sector varied between six percent and seven percent.\textsuperscript{12} Since the 1970s, rates have fluctuated over a much wider range. Although the French bond market is smaller than its counterparts in the United States, Japan, and the United Kingdom, the gap between the size and activity of the French bond market and that of the other major countries is not as wide as in the case of equity markets.\textsuperscript{13}

2.2. Characteristics

2.2.1. Size and Activity

Referring to Table 3, in the Appendix, from 1973 to 1985 the size of the French bond market increased by a factor of eight, whereas that of the equity market grew only by a factor of 3.5. At the end of 1973, the bond market was only 10% larger than the equity market; however, twelve years later, it was 150% larger primarily because of the recent rise in the size of government debt outstanding and the size of state-controlled enterprises.\textsuperscript{14}

The growth in the size of the bond and equity markets has also been accompanied by a rise in the volume of trading. Through 1979, the volume of transactions in bonds was roughly the same as that in equity.\textsuperscript{15} Since then, bond trading has grown considerably, far exceeding trading activity in the equity market, mostly because of increasing interest rate uncertainty and because of growth in the size of the government debt outstanding.\textsuperscript{16}

The growth in the size of the equity market has come primarily

\textsuperscript{11} In 1985, bond market capitalization totalled FF 288.9 billion, whereas equity market capitalization totalled only FF 17.4 billion. Table 3, in Appendix.

\textsuperscript{12} French Finance Ass'n, Information Letter No. 21 (Sept. 1985).

\textsuperscript{13} Equity capitalization in the United States, Japan, and the United Kingdom is, respectively, approximately 25, 12, and 3.5 times greater than in France. Public and private bond market capitalization, however, is only 6.5 and 2.5 times greater in the case of the United States and Japan, and is approximately equal in the case of the United Kingdom. Table 1, in Appendix.

\textsuperscript{14} Table 3, in Appendix.

\textsuperscript{15} Id.

\textsuperscript{16} By the end of 1985, the volume of transactions in the bond market was over 300% larger than in the equity market. Id.
from market appreciation of existing securities. Actually, the number of companies whose shares are listed on the Official Market on the Paris Bourse has been declining steadily\(^\text{17}\) and the volume of new issues of equity (primary market) has been relatively small.\(^\text{18}\) The drop in market size and the number of listed shares in 1982 is explained by the nationalization law of February 11, 1982,\(^\text{19}\) which removed twenty-eight companies from the roster of listed firms and thereby reduced total market capitalization by 12.6%.\(^\text{20}\) Since then, the equity market recovered remarkably, tripling in size over the three-year period from the end of 1982 to the end of 1985.\(^\text{21}\)

2.2.2. Primary Issues

In 1983, new issues of equity reached and surpassed the ten billion French franc (FF) mark for the first time.\(^\text{22}\) New issues of common stocks have amounted to 2.5 to 3.5% of equity market capitalization since 1982, whereas prior to 1982, they constituted only 1.5 to 2.5%.\(^\text{23}\) New issues of bonds (e.g., government issues, state-controlled issues, private issues) have grown regularly over the last thirteen years, dwarfing new equity issues by a ratio of seventeen to one at the end of 1985.\(^\text{24}\)

2.3. Significance

How do French firms finance the growth of their assets and to what extent do they rely on internally generated funds (retained earnings before depreciation) as opposed to external financing in the form of debt (borrowing) and equity (stock issuance)? An answer can be found by examining financial statements of many French industrial enterprises that are published in the Organisation of Economic Cooperation and Development (OECD) financial statistics.\(^\text{25}\) Referring to Table 4, in the Appendix, internal financing through 1980 represented between 50 and 70% of firms' sources of funds. These figures are com-

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\(^{17}\) From 1979 to 1985, the number of listed stocks decreased by 20%. Id.

\(^{18}\) See supra note 11.


\(^{21}\) The volume of transactions in the equity market jumped from FF 65.5 billion in 1982 to FF 166.1 billion in 1985. Table 3, in Appendix.

\(^{22}\) Id.

\(^{23}\) Id.

\(^{24}\) Id.

\(^{25}\) See, e.g., supra note 1.

https://scholarship.law.upenn.edu/jil/vol9/iss2/1
parable to those observed in large industrialized countries such as the United States where internally generated funds account for roughly two-thirds of firms' sources of funds (excluding trade credits). Internal financing dropped to 39% of total financing in 1981 and to 31% in 1982 as a result of the combination of two phenomena: the recent deterioration of French firms' profitability that reduced significantly their ability to generate internal funds, and the increased use of capital markets as a source of debt and equity financing.

It is evident from Table 5, in the Appendix, that financial intermediaries, such as banks and insurance companies, are the primary source of external funds (indirect financing) for French firms, supplying about 90% of the firms' external funds in the form of borrowing. New issues of debt and equity (direct financing) accounted for roughly 5 to 15% of French firms' external financing, except for the years 1971, 1979, and 1982 when it exceeded 20%. These figures clearly indicate that despite their recent growth in size and trading activity, French capital markets play a minor role as a source of external financing even to large firms. In comparison, direct financing accounts for 50 to 60% of the volume of external funds raised by large U.S. firms.

The French capital markets are significantly smaller and less active than their U.S., Japanese, and U.K. counterparts, even after adjusting for the respective size of these countries' economies. Indeed, at the end of 1985, capital market capitalization of listed equity and bonds was 38% of the GNP in France, compared to roughly 80 to 90% of the GNP in the United States, Japan, and the United Kingdom.

Due to an awareness of the deficiencies of French capital markets, various French administrations have introduced several important pieces of legislation since 1978 to accelerate the development of French capital markets. This legislation is surveyed and evaluated in Sections 4 and 5.

The favorable legislative and regulatory climate coupled with structural changes in the debt market has given rise to a series of new developments globally referred to as financial innovations. The following sections analyze financial innovations in France and evaluate their impact on the development of French capital markets.

26 Table 4, in Appendix.
27 Table 5, in Appendix.
29 Table 1, in Appendix.
3. **The Process of Financial Innovation**

3.1. **Defining and Classifying Financial Innovation**

Broadly speaking, a financial innovation is any new development taking place in the domestic or international financial system which (1) increases the rate of financial saving (the flow of savings held in the form of financial assets, expressed as a percentage of disposable income), (2) allocates the available flow of savings more efficiently among its alternative uses, or (3) increases the financial system’s operational efficiency by reducing the cost and/or the risk of transactions in the primary and secondary markets.

Below are suggested classifications for financial innovation that have developed recently in France with examples of each type in parentheses:

(1) new financial intermediaries (venture capital funds),

(2) new financial instruments (negotiable certificates of deposit),

(3) new financial markets (futures and options markets),

(4) new financial services (faster and cheaper trading),

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30 Financial saving is defined as gross saving minus investment in housing minus the investment of individual entrepreneurs. Gross saving is the difference between disposable income and consumption. J. Rosenberg, Dictionary of Banking and Finance 446 (1982) [hereinafter Dictionary].

31 See generally Kane, Microeconomic and Macroeconomic Origins of Financial Innovation, in Financial Innovations: Their Impact on Monetary Policy and Financial Markets 3 (1984) (warning that the myopic view of financial innovation as an autonomous development is hazardous to successful monetary and regulatory policymaking).

32 Venture capital funds are mutual funds invested in securities of firms or enterprises that are newly formed or little known. Dictionary, supra note 30, at 516.

33 Negotiable certificates of deposit are banking tools used to expand loan volume despite government efforts to tighten credit. Certificates of deposit provide a quick and easy way to raise funds. Id. at 347.

34 A financial futures market is any exchange trading in financial futures which can be 1) foreign currencies bought or sold based on a rate that is quoted as of some future date or 2) contracts for the sale and delivery of financial assets at some future time made with the expectation that no financial instrument will be received immediately. Id. at 242-43. An option is a negotiable contract in which the writer, for a certain sum of money called the option premium, gives the buyer the right to demand, within a specified time, the purchase or sale by the writer of a specified number of shares of stock at a fixed price called the striking price. Unless otherwise stated, options are written for units of 100 shares and ordinarily are issued for periods of less than one year. Gastineau, Options Markets and Instruments, in Financial Handbook § 20 (E. Altman 5th ed. 1981).

35 Faster and cheaper trading results from technological advances that increase the convenience of customer access to financial products and lower the cost to institutions of
(5) new financing techniques and special financial arrangements (leveraged buyouts).38

Venture capital funds are financial intermediaries that direct scarce financial resources toward entrepreneurs who have promising but risky projects and who are in search of capital.37 In addition, these funds may also increase the country’s financial savings rate.38 Negotiable certificates of deposit are financial instruments that allow banks to raise short-term wholesale funds in the money market by issuing negotiable (liquid) debt.39 Futures and options markets are financial markets that allow market participants to share risk efficiently.40 Also, several new financial services have lowered the transaction costs in the financial markets.41 Finally, new financial techniques, such as leveraged buyouts, allow managers or outsiders to acquire firms with relatively little equity of their own.42 As in the case of venture capital funds, this technique facilitates the transfer of scarce financial resources from cash surplus agents to qualified entrepreneurs with insufficient capital of their own.

Three observations are in order. First, there is some overlapping between the five types of innovations listed above. For example, financial intermediaries such as venture capital funds issue securities in the form of fund shares. But we classify them as intermediaries because they were created in response to an “intermediation” need; the issuance

36 A leveraged buyout is a transaction in which most of the purchase price is provided by borrowings from one or more outside lenders and, at times, in part from the seller in the form of a deferred purchase price. For a collection of essays on the subject, see LEVERAGED BUYOUTS (S. Diamond ed. 1985). See also PRACTISING LAW INSTITUTE, LEVERAGED ACQUISITIONS: PRIVATE AND PUBLIC (Jan.-Feb. 1985).

37 DICTIONARY, supra note 30, at 516.

38 Financial intermediaries mobilize saving by drawing attention to the benefits of financial assets and by encouraging individuals to save through the financial system rather than through buying land, jewelry, or other tangible assets. Financial intermediaries enable individuals to convert present income into future income without themselves directly participating in productive investment. See A.D. BAIN, THE ECONOMICS OF THE FINANCIAL SYSTEM 9 (1981).

39 See supra note 33.

40 See supra note 34.

41 An example of a new financial service that lowers transaction costs is the automated teller machine. See Kane, supra note 31, at 8.

42 See supra note 36.
of fund shares is only a means of carrying out the intermediation process.\textsuperscript{43} New financial instruments include new \textit{indirect} securities issued by existing financial intermediaries as well as \textit{direct} (primary) securities issued by the ultimate users of funds (e.g., government, firms, households).\textsuperscript{44} New financial markets include institutions that were created both to provide liquidity and to facilitate the secondary trading of existing securities (futures and options contracts).\textsuperscript{45} Second, most financial innovations are simply modified versions of existing institutions, products, and procedures that have been adapted to meet the constraints and conditions imposed by a new economic environment. Third, new developments in a domestic financial system are still referred to as financial innovations even if a similar or identical institution, product, or procedure was first created in another domestic financial system or in the international financial system.

3.2. \textit{The Determinants of Financial Innovation}

Why do financial innovations occur at a particular moment in the history of a financial system, and what are the forces that generate innovative financial institutions, instruments, and procedures?

The process of financial innovation has been examined by several authors.\textsuperscript{46} I propose here a general framework that draws on some of their work. A financial innovation will occur whenever an opportunity exists to reduce or shift the cost and/or the risk imposed by the market environment and by legislation on existing participants and potential entrants in the financial system.\textsuperscript{47}

With the adoption of a supply-and-demand approach to financial innovation, the "production" of financial innovation can be considered the outcome of the interplay of supply and demand forces that are themselves the outcome of both the economic environment (e.g., inflation, the level and variability of interest rates, the profitability of firms) and the political environment (e.g., legislation, regulation, taxation, the

\textsuperscript{43} Financial intermediaries are third-party facilitators that permit buyers and sellers, or borrowers and lenders, to interact more readily by issuing claims against themselves, thus transforming the risk of investment. See Kane, supra note 31, at 6; see also A.D. Bain, supra note 38, at 9-12.

\textsuperscript{44} There are two types of security markets. The primary or new issue market is concerned with raising new capital. The secondary market is concerned with trading in existing securities. See A.D. Bain, supra note 38, at 194.

\textsuperscript{45} See A.D. Bain, supra note 38, at 204-06.


\textsuperscript{47} See Kane, Policy Implications of Structural Changes in Financial Markets, 73 AM. ECON. REV., May 1983, at 96, 97-98.
size of the government debt). The various elements underlying this process of financial innovation are shown in Exhibit 1, in the Appendix.

On the supply side, at least three factors lead to financial innovation:

(1) the rate of technological change,
(2) the degree of competition among financial institutions, and
(3) the legislative and regulatory climate.

On the demand side, two basic factors lead to financial innovation:

(1) the expected relative risk-adjusted pre-tax yield on financial assets and on real assets relative to financial assets, and
(2) taxation and fiscal incentives.

3.2.1. The Rate of Technological Change

Electronic communication networks facilitate and accelerate the transfer of funds and financial information. These networks are the major force behind the growth of low-cost, high-speed secondary trading systems that have greatly improved the operational efficiency of secondary markets. In France, technological change has given rise to a series of new financial services, such as home videobanking, electronic registration and transfer of securities, and use of "memory" cards. The provision of low-cost, efficient financial services is essentially supply-driven; demand factors generally play a marginal role.

3.2.2. Competition Among Financial Institutions

Competition is a major agent of financial innovation. Competing financial institutions will use innovation as a means to increase profitability and gain market share. Competition may be initiated by local institutions or by foreign institutions operating in the domestic markets. For example, foreign banks have been a major agent of financial innovation in Italy in the late 1970s and in Spain since 1979. In France,
however, strict regulation of both domestic and foreign financial institutions has interfered with financial innovation by limiting competitive forces.

3.2.3. The Legislative and Regulatory Climate

The question of whether legislation precedes financial innovation or ratifies it is still unsettled. In tightly regulated financial systems, the development of financial innovation is often directly related to the legislative and regulatory climate. When this climate is favorable, innovation and supporting legislation may occur simultaneously. The scenario could be as follows: the initiative to innovate would come from within the financial system in response to domestic and international competitive pressures; legislators and regulators would then be pressured to accept innovative financial institutions, products, and procedures; after a period of bargaining between legislators/regulators and various interest groups (e.g., banks, brokers), the innovation would develop and simultaneously be ratified by authorities in the form of laws, decrees, or rulings.

3.2.4. Relative Yields

It is the expected relative risk-adjusted yield on financial assets that will determine the relative demand for existing as well as new innovative financial assets. Moreover, the demand for financial assets will depend generally on their risk-adjusted yield relative to that of real assets, such as real estate and commodities. This is particularly important in France where, for historical reasons, the demand for real estate and gold relative to that for financial assets has generally been strong.

3.2.5. Taxation and Fiscal Incentives

Taxation and fiscal incentives are probably the principal agents of financial innovation and development at the disposal of legislators. This is because the demand for financial assets is determined by their after-tax yields, a variable that can be controlled by the taxing authority.

54 See, e.g., Kane, supra note 47.
55 See id. at 96-97.
56 See A.D. BAIN, supra note 38, at 49-59.
57 See id. at 7-9.
4. Recent Financial Innovations and Incentive Programs to Accelerate the Development of French Capital Markets

4.1. The Recent Legislative and Regulatory Climate in France

Most of the new developments and innovations that have taken place in the French capital markets in recent years can be traced to two important pieces of legislation. As discussed in Section 3.2.3., it should not be inferred, however, that financial innovation in France is legislated; it simply implies that innovation and legislation often occur concurrently.

These two laws are the Loi d'Orientation de l'Epargne of July 1978, known as the Monory Law, and the Loi sur le Développement des Investissements et la Protection de l'Epargne of January 1983, referred to as the Delors Law. The first was enacted under the Conservative government of President Giscard; the second was passed under the Socialist government of President Mitterrand. Despite the change in political control that occurred in June 1981, both laws shared a common objective — the acceleration of the development of French capital markets. They also used similar tools to achieve this goal — essentially tax incentives and deregulation.

4.2. Demand-Side Fiscal Incentives

As summarized in Exhibit 2, in the Appendix, fiscal incentives in France are of four types: (1) tax exemption for certain financial revenues, (2) limited taxation of interest and dividend income, (3) limited taxation of capital gains, and (4) limited deductibility from taxable income of investments in French companies' stocks.

Banks and financial intermediaries were quick to capitalize on the fiscal advantages offered by the Monory Law. Soon after the law was passed, these institutions created new mutual funds whose shares qualified for the Monory Law tax deductibility: as long as the funds had at least sixty percent of their assets invested in stocks of French-listed companies.

To further redirect short-term savings toward investment in long-term financial assets (e.g., bonds, equity), the Monory Law raised the tax rate on income from short-term assets (e.g., bank savings accounts, treasury bills, certificates of deposit) from 33⅓% to 40%.
since late 1979, the government's monetary policy has aimed at maintaining high long-term interest rates relative to short-term rates. Finally, to further discourage investment in short-term assets, a 1981 ruling prevented banks from offering competitive short-term yields on certificates of deposit having a denomination of less than FF 500,000 and a maturity of less than six months.

4.3. Financial Innovation in France

A number of financial innovations that recently occurred in France are listed in Exhibit 3, in the Appendix. Most of these arose in 1983 after receiving official approval from the Delors Law.

4.3.1. Financial Intermediaries

Two recently developed financial intermediaries are cash management funds (Sociétés d'Investissement à Capital Variable de Trésorerie) (SICAV) and venture capital funds (Fonds Communs de Placement à Risques). The cash management funds were created in 1981 primarily in response to the deliberate governmental policy of preventing banks from offering competitive short-term yields on certificates of deposit. These funds were allowed to grow from FF 13 billion at the end of 1982 to FF 204 billion at the end of 1985. In 1985, these funds received 50.5% of net capital invested in all French mutual funds. This growth was not checked by the authorities for the most part because these funds invested a large part of the proceeds of the sales of their shares in medium-and long-term bonds, thus redirecting short-term savings towards the capital markets and helping the government finance its debt. Interestingly, banks were allowed in March 1985 to issue negotiable certificates of deposit in order to provide a liquid short-term investment outlet to cash management funds as well as firms with excess cash.

Venture capital funds, created in 1983 through the Delors Law,

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62 Metais, supra note 3, at 99. This policy resulted in a rising yield curve although, in 1985, the yield curve in France flattened out due to a drop in long-term interest rates with short-term rates remaining relatively high.
66 Id. at 237.
67 See C.O.B., 18TH ANNUAL REPORT (1985) (discussing the Ministry of Finance ruling permitting banks to issue the certificates).
must hold at least forty percent of their assets in the form of unlisted securities (regular mutual funds can only hold listed securities). Additionally, there are no constraints on either the minimum number of shares they can hold or the proportion of their capital that they can invest in a single firm. Shareholders cannot withdraw their investment for a period of five years, but all their capital gains are tax-free. There were fifty-five venture capital funds operating at the end of 1985 with net assets worth FF 1,347 million.

4.3.2. Financial Instruments

Many of the more recent French financial instruments have existed in foreign financial systems for a long time. Two such instruments in the long-term debt market are zero-coupon bonds and subordinated perpetual bonds. In addition, new financial instruments have also developed in the French money market.

Up until early 1985, the French money market was essentially a market for short-term transactions among banks, the Central Bank, and the Treasury. The general public (e.g., individuals, firms, non-bank financial institutions) was excluded from this market. In 1985, a new money market was established whereby banks could raise short-term funds by issuing negotiable certificates of deposit, firms could do the same by issuing commercial paper, and the Treasury by issuing negotiable treasury bills. The minimum denomination on negotiable certificates of deposit and commercial paper is five million French francs. Negotiable certificates of deposit have a one-day minimum maturity, whereas treasury bills and commercial paper have a ten-day minimum maturity. The establishment of the new money market is another step toward the liberalization of the French financial markets; rather than having an interbank money market operating separately from the bond market, there is now a market for negotiable debt instruments with maturities ranging from as short as one day to as long as perpetuity (perpetual bonds).

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69 1983 J.O. 162, 1983 D.S.L. 94; see also Metais, supra note 3, at 104.
71 For a discussion of new financial instruments in France, see 60 ANALYSE FINANCIÈRE (1985).
72 Exhibit 3, in Appendix.
73 See C.O.B., 18TH ANNUAL REPORT (1985) (discussing the Ministry of Finance ruling establishing the money market).
74 See id.
75 See id.
Truly new instruments are the participating perpetual subordinated notes (Titres Participatifs) and the investment certificates (Certificats d'Investissement). The participating perpetual subordinated notes were designed to help nationalized enterprises and firms in the cooperative sector raise funds from the public. These notes are considered close substitutes for equity even though they are legally treated as debt. The government, as well as certified public accountants, allow issuing firms to treat these notes as equity on their balance sheets and to have them listed on the Paris Stock Exchange. Holders of these notes, however, have no voting rights. The notes' hybrid characteristic stems from the fact that their return on investment depends on two components, agreed upon at the time of issue. The first is a fixed rate of return that is equivalent to interest. The second is a variable rate of return linked to an index of the issuing firm's activity or performance. Activity indices are usually based upon sales or added value, whereas performance indices are based upon net earnings or cash flow. In general, the variable rate of return cannot exceed forty percent of the note's nominal value. The earnings from participating perpetual subordinated notes are, like those on bonds, tax exempt up to FF 5,000 and are then taxed at a rate of twenty-five percent. The first issue of participating perpetual subordinated notes was made by St. Gobain in April 1983 for FF 700 million. As of the end of 1985, there were thirty-one issues outstanding with a market value of FF 21.6 billion and with monthly trading volume varying between half a billion and one billion French francs.

Investment certificates are quasi-equity instruments. Their holders possess all the pecuniary rights attached to common stocks but lack the right to vote. A firm can issue up to twenty-five percent of its equity in the form of investment certificates and can have them listed on the Paris Stock Exchange. These certificates can also be created by con-

78 See 30 A.L.F.E. 305.
80 1983 J.O. 162, 1983 D.S.L. 93; see also 30 A.L.F.E. 305.
82 Metais, supra note 3, at 101.
83 C.O.B., 16th Annual Report 122 (1983). In addition to St. Gobain, four other corporations issued participating perpetual subordinated notes in 1983: Rhone-Poulenc (June, FF 600 million), Thomson-Brandt (July, FF 750 million), C.G.E. (September, FF 100 million), R.N.U.R. (October, FF 1,000 million). Id.
86 1983 J.O. 162, 1983 D.S.L. 93; see also 30 A.L.F.E. 304; C.O.B., 16th An-
Converting existing common stocks. Contrary to participating perpetual subordinated notes, investment certificates have not been well received by the financial markets primarily because they are perceived as inferior to nonvoting preferred stock. Indeed, nonvoting preferred stock has most of the characteristics of investment certificates but offers, in addition, a priority dividend.

4.3.3. Financial Markets

Financial futures markets opened in February 1986. Initially, a single contract (a long-term bond) was traded. Until September 1986, only stockbrokers were permitted to participate in this long-term bond futures market. After that date, the market was opened to other intermediaries, including banks. In June 1986, a futures contract on a short-term debt instrument was introduced with trading open to all investors. A secondary market for financial options is planned to open in 1987.

The most important recent financial innovation in French capital markets was the establishment of the Second Market (Second Marché) in February 1983. The largest French companies outside the public sector have their shares listed on the Paris Stock Exchange. Smaller regional firms usually have their shares listed on one of six regional exchanges.

As noted in Table 3, in the Appendix, the number of firms listed on the Paris Stock Exchange (Official Market) has been declining steadily as a result of mergers and acquisitions, and the required delisting of companies that no longer meet the minimum listing requirements. This dwindling in the number of official firms quoted has not been offset by a sufficient number of new listings because companies seeking admission to the Official Market find the procedure selective, lengthy, and costly.

One attempted solution to this problem was the creation of the Second Market. Its purpose was to attract to the exchanges small- to medium-sized companies with potential for growth. Until February 1983, these companies had only one alternative: they could have their shares traded in the Over-the-Counter Market (Marché Hors-Cote), which has existed in France since 1973. This market, however, has

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88 See Metais, supra note 3, at 103.
89 See id. at 104.
not functioned satisfactorily and has not fulfilled its intended role of serving as a first step toward quotation on the Official Market. At the end of 1982, one month before the opening of the Second Market, only twelve firms were listed on this Over-the-Counter Market. Thus, the Second Market was created on the Paris and the regional exchanges essentially to provide a viable alternative to a faltering Over-the-Counter Market and to stem the decline in the number of companies listed on the Official Market.

As set forth in Exhibit 4, in the Appendix, it was necessary to remove several barriers in order to induce smaller companies to list their securities on the Second Market. Three changes were most significant.

First, there was a reduction of the minimum percentage of a company's total equity capital that must be offered in the public market from twenty-five percent in the case of the Official Market to ten percent in the case of the Second Market. This characteristic of the Second Market is important because owners of small French companies, fearing a gradual loss of control, are generally reluctant to open up their firms to outside shareholders. A recent survey indicates that two-thirds of the firms currently on the Second Market are family-owned.

Second, unlike the Official Market and the Over-the-Counter Market, which are essentially brokered markets, the Second Market allows dealer-type activities in order to provide liquidity for listed shares. This greater liquidity is achieved by permitting companies listed on this market to enter into a special agreement with a "sponsor" who is either an official broker (Agent de Change) or a bank. This sponsor is then authorized to act as a dealer by buying and selling shares on its own account and hence providing a liquid and orderly market for designated stocks. The sponsorship arrangement is a novelty in French capital markets.

Third, the procedure to gain admission to the Second Market has been simplified, accelerated a few weeks, and made significantly less costly. Furthermore, the cost of informing shareholders is considerably less for firms listed on the Second Market than those listed on the Offi-

\[91 \text{ See id.}\]
\[92 \text{ See id.}\]
\[93 \text{ See id. at 105 ("[t]o enter the second marché, companies now need to offer publicly only 10\% of their equity . . . ").}\]
\[94 \text{ See id. at 103 (noting that reluctance of many firms to accept new partners into their businesses is a factor impeding the raising of equity capital by French firms).}\]
\[95 \text{ C.O.B., SERVICE ÉTUDES ET DÉVELOPPEMENT DU MARCHÉ, BILAN DU SECOND MARCHÉ (Dec. 1986) (internal staff study made available to the public).}\]
cial Market.98

So far, the Second Market has been a success. At the end of February 1986, three years after it was inaugurated, 138 French and 4 foreign companies were listed on this market, helping to offset the decline in the number of shares listed on the Official Market.97 In 1986, new firms were seeking admission to the Second Market at an average rate of five per month. The demand for the shares of these firms is generally very strong and is often ten times greater than the number available for sale. This imbalance is reflected in the above-average increase in share prices following their introduction into the Second Market.

The Second Market has not yet attracted a significant number of newly founded, high-risk firms. Most companies listed on the Second Market are usually well-established, successful small- to medium-sized regional firms that often do not have an urgent need for fresh equity capital. They probably enter the Second Market to acquaint themselves with the capital markets, to create a secondary market for their equity capital, and to gain some national exposure before joining the Official Market. These motivations fall within the spirit of the original mission of the Second Market, which stipulated that after a trial period of three years, firms could either remain on the Second Market if they complied with all the requirements and rules imposed by regulators or could apply for an official listing if they met the admission requirements.98 Two firms moved from the Second Market to the Official Market in 1984, and none did in 1985.99

4.3.4. Financial Services, Financing Techniques, and Financial Arrangements

France has been at the forefront of technology-based financial services primarily under the government’s leadership. Home videobanking was introduced in 1983 and credit cards using memory chips (microprocessors) were launched on an experimental basis in 1985 with the goal of twelve million cards in use by 1988.100 Another technology-

---

98 Exhibit 4, in Appendix.
97 Table 6, in Appendix.
98 See Metais, supra note 3, at 105 (observing that after a three-year probationary period, a firm may apply for an Official Market listing if the requirements of the Commission des Opérations de Bourse are complied with and if the secondary market for the firm’s shares has proven sufficiently liquid).
100 See Marton, 250,000 Frenchmen Can’t Be Wrong, 20 Institutional In-
based innovation is the complete dematerialization of securities (i.e., change to certificateless book entry) since November 1984. The trading of securities is being significantly improved with the introduction of unified quotations, limited dealer-type activities, and, as of late 1985, continuous trading over extended hours using the latest computer technology. Finally, new financial techniques and special financial arrangements have been recently introduced, including leveraged management buyouts, automatic dividend reinvestment plans, employee profit-sharing plans, and employee stock-option plans.

5. AN EVALUATION OF THE FRENCH EXPERIENCE AND ITS IMPLICATIONS

5.1. Impact on the Structure and Performance of the Market

Did the incentives and reforms contained in the Monory and Delors Laws have any effect on the development of the French capital markets? The growth of the bond market, the rise in the proportion of French households who invest in listed securities, the creation of the Second Market, the growth in mutual funds, the significant increase in new issues of debt and equity, and the unprecedented rise in the value of listed stocks are all signs of a vigorous capital market. The performance of French listed stocks over the last two and a half years is indeed exceptional. Between 1913 and 1976, the “market” portfolio grew at an annual mean rate of return of only one percent in real terms, including dividend reinvestment.

Although it is difficult to identify a precise cause and effect relationship between incentives and reforms on the one hand and the structure and performance of capital markets on the other, it seems that fiscal incentives have greatly contributed to the improved market performance. The performance of French listed shares, however, cannot

VESTOR, Aug. 1986 at 229 (stating that the number of French private and business customers of home videobanking has reached 250,000 and is increasing).

101 Exhibit 3, in Appendix; see also Lewis, No Paper, THE BANKER, May 1985, at 104 (noting that transfers are made by book entries and thus no share or bond certificates exist).


103 See id. at 105 (observing that the number of French households investing in listed securities has increased from 7% in 1977 to 17% in 1982).

104 Table 3, in Appendix. From 1980 to 1985, market capitalization equity has increased from FF 257.5 billion to FF 598 billion. Id. For a discussion of changes in financing in the French economy, see Metais, supra note 3.

105 Metais, supra note 3, at 97.

106 For a discussion of financial incentive strategies for attracting the French
be explained by domestic factors alone. Foreign investment in French shares has also contributed to their recent rise in value.

5.2. Impact on Saving Rates

Over the past ten years, the gross saving rate (disposable income minus consumption expressed as a percentage of disposable income) has declined steadily in France. But the gross saving rate is not a good indicator of the propensity of French households to hold financial assets. Indeed, gross saving includes individual investment in housing and the investment of individual entrepreneurs. Excluding these two items from gross saving yields financial saving which, expressed as a percentage of disposable income, gives the financial saving rate.

The four-year period from 1981 to 1984 corresponds to the period over which the French capital markets were being stimulated by the incentives offered by the Monory Law and the Delors Law. It is also the period of time over which the development of financial innovations had been relatively high. Again, it is tempting to link the two phenomena in a cause-and-effect relationship.

5.3. Impact on Saving Allocation

As shown in Table 8, in the Appendix, there is a noticeable movement away from investment in liquid assets (e.g., savings accounts, money) and a shift toward financial assets. More importantly, however, is the increasing proportion of investment in financial assets that is held in the form of long-term securities (excluding life insurance). This is the result which both the Monory and Delors Laws were designed to achieve. Finally, it is worth noting that the movement away from real estate investment has been accelerated by two factors: (1) the Loi Relative aux Droits et Obligations des Locataires et Bailleurs of June 1982, the Quillot Law, which has diminished real es-

---

107 Table 7, in Appendix. The gross saving rate has declined from a high of 18.6% in 1975 to a low of 13.7% in 1984, the lowest figure since 1959. Id.
108 The financial saving rate declined from a high of 7.5% in 1975 to a low of 4.4% in 1980. Id. Since then, it has risen to about 5.5% and has remained at that level over the last four years despite the decline in the gross saving rate over the same period. Id. For a detailed derivation and explanation of these terms, see id. at nn.1-2.
109 Exhibit 3, in Appendix.
110 Savings account assets in the percentage distribution of annual flow in French households have decreased from 36.2% in 1973 to 23.7% in 1984. Table 8, in Appendix. Assets invested in securities have increased from 8.7% to 18.2% during that same interval. Id. See also Metais, supra note 3, at 105.
111 See Metais, supra note 3, at 98.
tate investment relative to financial investment and (2) the decline in the rate of inflation.\textsuperscript{113}

6. **Implications and Conclusion**

What lesson can we draw from the French experience? Tax incentives can be a powerful tool to reallocate savings and accelerate the development of capital markets; however, alone they are insufficient. In order to stimulate investment in long-term financial assets and to accelerate the development of capital markets, demand-side tax incentives must be accompanied by supply-side measures aimed at deregulating the financial system and increasing the degree of competition among financial intermediaries. Gradual deregulation coupled with a controlled dose of competition — including some foreign competition — may be the best medicine, provided that it is administered with care.

\textsuperscript{113} Table 7, in Appendix. The inflation rate in France has decreased from 9.6% in 1975 to a low of 6.7% in 1984, having peaked in 1981 at 14%. \textit{Id.}
<table>
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</thead>
<tbody>
<tr>
<td><strong>UNITED STATES</strong>&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Equity</td>
<td>1,950,322</td>
<td>970,479</td>
<td>49.76%</td>
<td>51.33%</td>
<td>25.53%</td>
</tr>
<tr>
<td>Bonds (Private)</td>
<td>273,838</td>
<td>—</td>
<td>—</td>
<td>7.21%</td>
<td>—</td>
</tr>
<tr>
<td>Bonds (Gov't)</td>
<td>1,040,034</td>
<td>—</td>
<td>—</td>
<td>27.37%</td>
<td>—</td>
</tr>
<tr>
<td><strong>JAPAN</strong>&lt;sup&gt;4&lt;/sup&gt;</td>
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</tr>
<tr>
<td>Equity</td>
<td>948,263</td>
<td>392,291</td>
<td>41.37%</td>
<td>60.42%</td>
<td>24.98%</td>
</tr>
<tr>
<td>Bonds (Private)</td>
<td>29,685</td>
<td>—</td>
<td>—</td>
<td>1.89%</td>
<td>—</td>
</tr>
<tr>
<td>Bonds (Gov't)</td>
<td>459,255</td>
<td>—</td>
<td>—</td>
<td>29.25%</td>
<td>—</td>
</tr>
<tr>
<td><strong>UNITED KINGDOM</strong></td>
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</tr>
<tr>
<td>Equity</td>
<td>353,475</td>
<td>76,356</td>
<td>21.60%</td>
<td>49.44%</td>
<td>10.68%</td>
</tr>
<tr>
<td>Bonds (Private)</td>
<td>22,149</td>
<td>—</td>
<td>—</td>
<td>4.00%</td>
<td>—</td>
</tr>
<tr>
<td>Bonds (Gov't)</td>
<td>184,586</td>
<td>—</td>
<td>—</td>
<td>25.82%</td>
<td>—</td>
</tr>
<tr>
<td><strong>FRANCE</strong></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Equity</td>
<td>79,096</td>
<td>19,824</td>
<td>25.06%</td>
<td>10.78%</td>
<td>2.70%</td>
</tr>
<tr>
<td>Bonds (Private)</td>
<td>36,674</td>
<td>—</td>
<td>—</td>
<td>5.00%</td>
<td>—</td>
</tr>
<tr>
<td>Bonds (Gov't)</td>
<td>163,431</td>
<td>—</td>
<td>—</td>
<td>22.29%</td>
<td>—</td>
</tr>
</tbody>
</table>

**Sources:** International Federation of Stock Exchanges, 1985 Statistics (1986); Organisation for Economic Cooperation and Development, OECD Annual Statistics (1986).

<sup>1</sup> Market capitalization is for domestic firms only (translated at year-end exchange rates).

<sup>3</sup> Volume of transactions if for domestic firms only (translated at average exchange rates for the year).

<sup>3</sup> New York Stock Exchange.

<sup>4</sup> Tokyo Stock Exchange.
### TABLE 2

COMPARISON OF EQUITY MARKETS IN THE UNITED STATES, JAPAN, THE UNITED KINGDOM AND FRANCE (LISTED SECURITIES ONLY)

(December 1985)

<table>
<thead>
<tr>
<th></th>
<th>UNITED STATES¹</th>
<th>JAPAN²</th>
<th>UNITED KINGDOM</th>
<th>FRANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market capitalization³ (in millions of U.S. dollars)</td>
<td>1,950,322</td>
<td>948,263</td>
<td>353,475</td>
<td>79,096</td>
</tr>
<tr>
<td>Capitalization as percentage of world portfolio</td>
<td>35%</td>
<td>17%</td>
<td>6.4%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Concentration of 10 largest companies⁴</td>
<td>15%</td>
<td>18%</td>
<td>28%</td>
<td>24%</td>
</tr>
<tr>
<td>Number of listed domestic companies</td>
<td>1,487</td>
<td>1,455</td>
<td>2,116</td>
<td>489</td>
</tr>
<tr>
<td>Average market value of domestic companies (in millions of U.S. dollars)</td>
<td>1,311</td>
<td>652</td>
<td>167</td>
<td>162</td>
</tr>
</tbody>
</table>


¹ New York Stock Exchange.
² First section of Tokyo Stock Exchange only.
³ Total market capitalization for each country is an estimate of the aggregate market value of all listed shares, excluding foreign securities and investment trusts.
⁴ In the Netherlands, the 10 largest companies represent 81.5% of total market capitalization, with Royal Dutch Petroleum accounting for 43.4% of the total.
TABLE 3

STATISTICS ON THE SIZE AND ACTIVITY OF FRENCH CAPITAL MARKETS
(in billions of French francs)

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</thead>
<tbody>
<tr>
<td><strong>Market Capitalization</strong></td>
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</tr>
<tr>
<td>Equity (Official Market)</td>
<td>169.1</td>
<td>123.8</td>
<td>.163.0</td>
<td>140.9</td>
<td>135.9</td>
<td>198.9</td>
<td>234.8</td>
<td>257.5</td>
<td>227.8</td>
<td>206.9</td>
<td>328.7</td>
<td>393.8</td>
</tr>
<tr>
<td>Bonds (Official Market)</td>
<td>186.8</td>
<td>201.9</td>
<td>251.3</td>
<td>291.1</td>
<td>337.5</td>
<td>421.1</td>
<td>470.1</td>
<td>585.3</td>
<td>604.6</td>
<td>815.6</td>
<td>1026.1</td>
<td>1212.8</td>
</tr>
<tr>
<td><strong>Number of listed stocks</strong></td>
<td></td>
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</tr>
<tr>
<td>Official Market</td>
<td>802</td>
<td>794</td>
<td>773</td>
<td>712</td>
<td>688</td>
<td>665</td>
<td>642</td>
<td></td>
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<tr>
<td>Second Market</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>42</td>
<td>72</td>
<td>127</td>
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<tr>
<td><strong>Volume of new issues</strong></td>
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<tr>
<td>Equity (all markets)</td>
<td>2.1</td>
<td>2.0</td>
<td>2.2</td>
<td>1.6</td>
<td>2.7</td>
<td>5.3</td>
<td>3.2</td>
<td>3.5</td>
<td>3.1</td>
<td>3.5</td>
<td>10.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Bonds (excluding government)</td>
<td>30.0</td>
<td>23.1</td>
<td>42.7</td>
<td>38.6</td>
<td>41.6</td>
<td>43.6</td>
<td>49.7</td>
<td>79.3</td>
<td>81.8</td>
<td>114.1</td>
<td>140.4</td>
<td>149.9</td>
</tr>
<tr>
<td>Government bonds</td>
<td>6.5</td>
<td>—</td>
<td>—</td>
<td>2.5</td>
<td>8.0</td>
<td>13.5</td>
<td>15.0</td>
<td>31.0</td>
<td>25.0</td>
<td>40.0</td>
<td>51.0</td>
<td>84.9</td>
</tr>
<tr>
<td><strong>Volume of transactions</strong></td>
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<tr>
<td>Equity (Paris Bourse)</td>
<td>44.8</td>
<td>25.3</td>
<td>31.3</td>
<td>26.8</td>
<td>22.0</td>
<td>46.5</td>
<td>47.3</td>
<td>58.5</td>
<td>65.9</td>
<td>65.5</td>
<td>99.5</td>
<td>94.1</td>
</tr>
<tr>
<td>Bonds (Paris Bourse)</td>
<td>23.5</td>
<td>28.5</td>
<td>26.9</td>
<td>28.3</td>
<td>26.2</td>
<td>38.7</td>
<td>48.8</td>
<td>63.2</td>
<td>83.8</td>
<td>151.3</td>
<td>221.8</td>
<td>409.7</td>
</tr>
<tr>
<td>Equity Market Index</td>
<td>94.5</td>
<td>65.4</td>
<td>85.5</td>
<td>71</td>
<td>64.4</td>
<td>97.4</td>
<td>113.9</td>
<td>124.2</td>
<td>100</td>
<td>100.2</td>
<td>156.7</td>
<td>182.4</td>
</tr>
<tr>
<td>New Equity/Capitalization</td>
<td>1.2%</td>
<td>1.6%</td>
<td>1.4%</td>
<td>1.2%</td>
<td>2.0%</td>
<td>2.7%</td>
<td>1.4%</td>
<td>1.4%</td>
<td>1.7%</td>
<td>3.3%</td>
<td>2.5%</td>
<td>2.9%</td>
</tr>
<tr>
<td>New Bonds/Capitalization</td>
<td>19.5%</td>
<td>11.4%</td>
<td>11.7%</td>
<td>14%</td>
<td>14.7%</td>
<td>13.6%</td>
<td>13.8%</td>
<td>17%</td>
<td>17.7%</td>
<td>19%</td>
<td>18.7%</td>
<td>19.4%</td>
</tr>
</tbody>
</table>


1 French companies only (Paris and regional stock exchanges).
### TABLE 4

**INTERNAL VERSUS EXTERNAL FINANCING OF FRENCH INDUSTRIAL COMPANIES**

(in millions of French francs)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Internal</strong></td>
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<tr>
<td></td>
<td>4969 (50%)</td>
<td>5995 (56%)</td>
<td>8769 (60%)</td>
<td>12705 (50%)</td>
<td>8612 (60%)</td>
<td>11206 (56%)</td>
<td>9902 (56%)</td>
<td>11203 (67%)</td>
<td>20618 (68%)</td>
<td>19455 (49%)</td>
<td>14980 (39%)</td>
<td>12835 (31%)</td>
</tr>
<tr>
<td><strong>External</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>— Financial Intermediaries*</td>
<td>3886 (39%)</td>
<td>4095 (38%)</td>
<td>5287 (37%)</td>
<td>12289 (48%)</td>
<td>5302 (37%)</td>
<td>8151 (41%)</td>
<td>6673 (38%)</td>
<td>5012 (30%)</td>
<td>7244 (24%)</td>
<td>18466 (46%)</td>
<td>21229 (35%)</td>
<td>21721 (52%)</td>
</tr>
<tr>
<td>(Indirect Financing)</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>— Capital Markets*</td>
<td>1004 (11%)</td>
<td>614 (6%)</td>
<td>394 (2%)</td>
<td>697 (2%)</td>
<td>518 (3%)</td>
<td>499 (3%)</td>
<td>1149 (6%)</td>
<td>546 (3%)</td>
<td>2214 (8%)</td>
<td>2213 (5%)</td>
<td>2455 (6%)</td>
<td>6944 (17%)</td>
</tr>
<tr>
<td>(Direct Financing)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>9859</td>
<td>10704</td>
<td>14450</td>
<td>25691</td>
<td>14432</td>
<td>19856</td>
<td>17724</td>
<td>16761</td>
<td>30076</td>
<td>40154</td>
<td>38664</td>
<td>41500</td>
</tr>
</tbody>
</table>

Number of Firms | 514 | 577 | 573 | 573 | 664 | 664 | 664 | 664 | 664 |


* Excludes trade credits.
* Short-term and long-term debt raised from banks and other financial institutions.
* Equity and long-term bonds (i.e., more than one-year initial maturity) raised in capital markets.
### TABLE 5

**SOURCES OF EXTERNAL FUNDS TO FRENCH INDUSTRIAL COMPANIES**

(in billions of French francs)

<table>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Financing (raised in the capital markets — equity and bond)</td>
<td>1004</td>
<td>614</td>
<td>394</td>
<td>697</td>
<td>518</td>
<td>499</td>
<td>1149</td>
<td>546</td>
<td>2214</td>
<td>2213</td>
<td>2455</td>
<td>6944</td>
</tr>
<tr>
<td>Indirect Financing (borrowed from intermediaries — short-term and long-term debt)</td>
<td>3886</td>
<td>4095</td>
<td>5287</td>
<td>12,289</td>
<td>5302</td>
<td>8151</td>
<td>6673</td>
<td>5012</td>
<td>7244</td>
<td>18,486</td>
<td>21,229</td>
<td>21,721</td>
</tr>
<tr>
<td>Percent of total which is raised in capital markets</td>
<td>20.53%</td>
<td>13.04%</td>
<td>6.94%</td>
<td>5.37%</td>
<td>8.90%</td>
<td>5.99%</td>
<td>14.69%</td>
<td>9.82%</td>
<td>23.41%</td>
<td>10.69%</td>
<td>10.36%</td>
<td>24.22%</td>
</tr>
<tr>
<td>Number of Firms</td>
<td>514</td>
<td>577</td>
<td>573</td>
<td>573</td>
<td>664</td>
<td>664</td>
<td>664</td>
<td>664</td>
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<table>
<thead>
<tr>
<th></th>
<th>OFFICIAL MARKET</th>
<th>SECOND MARKET</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>PARIS</td>
<td>REGIONALS</td>
</tr>
<tr>
<td><strong>Number of listed companies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>516</td>
<td>172</td>
</tr>
<tr>
<td>1984</td>
<td>501</td>
<td>164</td>
</tr>
<tr>
<td>1985</td>
<td>489</td>
<td>153</td>
</tr>
<tr>
<td><strong>Market capitalization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>318</td>
<td>10</td>
</tr>
<tr>
<td>1984</td>
<td>394</td>
<td>14</td>
</tr>
<tr>
<td>1985</td>
<td>598</td>
<td>19</td>
</tr>
<tr>
<td><strong>Volume of transactions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>63.60</td>
<td>0.75</td>
</tr>
<tr>
<td>1984</td>
<td>67.21</td>
<td>1.26</td>
</tr>
<tr>
<td>1985</td>
<td>131.80</td>
<td>3.26</td>
</tr>
<tr>
<td><strong>Volume/Market capitalization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>20%</td>
<td>7%</td>
</tr>
<tr>
<td>1984</td>
<td>17%</td>
<td>9%</td>
</tr>
<tr>
<td>1985</td>
<td>22%</td>
<td>17%</td>
</tr>
<tr>
<td><strong>Average market capitalization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>.617</td>
<td>.060</td>
</tr>
<tr>
<td>1984</td>
<td>.786</td>
<td>.085</td>
</tr>
<tr>
<td>1985</td>
<td>1.223</td>
<td>1.26</td>
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<table>
<thead>
<tr>
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<th></th>
<th></th>
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<tbody>
<tr>
<td>Savings Rate¹</td>
<td>18.6</td>
<td>16.4</td>
<td>16.6</td>
<td>17.5</td>
<td>16.2</td>
<td>14.9</td>
<td>15.8</td>
<td>15.7</td>
<td>14.4</td>
<td>13.7</td>
</tr>
<tr>
<td>Financial Savings Rate²</td>
<td>7.5</td>
<td>5.2</td>
<td>5.8</td>
<td>6.9</td>
<td>5.1</td>
<td>4.4</td>
<td>5.8</td>
<td>6.1</td>
<td>5.4</td>
<td>5.2</td>
</tr>
<tr>
<td>Inflation Rate</td>
<td>9.6</td>
<td>9.6</td>
<td>9.0</td>
<td>9.7</td>
<td>11.8</td>
<td>13.6</td>
<td>14.0</td>
<td>9.7</td>
<td>9.3</td>
<td>6.7</td>
</tr>
</tbody>
</table>


¹ Savings Rate = Gross Savings
                Disposable Income

(Gross Savings = Disposable Income - Consumption)

² Financial Savings Rate = Gross Savings
                          Disposable Income - (Investment in Housing + Investment in Individual Entrepreneurs)
<table>
<thead>
<tr>
<th>Year</th>
<th>Financing of housing</th>
<th>Securities</th>
<th>Life insurance</th>
<th>Deposit-type savings</th>
<th>Liquid assets (currency and checking accounts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>39.2%</td>
<td>15.0%</td>
<td>8.7%</td>
<td>4.5%</td>
<td>36.2%</td>
</tr>
<tr>
<td>1980</td>
<td>40.5%</td>
<td>14.1%</td>
<td>8.7%</td>
<td>4.5%</td>
<td>36.2%</td>
</tr>
<tr>
<td>1981</td>
<td>39.3%</td>
<td>11.4%</td>
<td>8.7%</td>
<td>4.5%</td>
<td>36.2%</td>
</tr>
<tr>
<td>1982</td>
<td>37.0%</td>
<td>11.4%</td>
<td>8.7%</td>
<td>4.5%</td>
<td>36.2%</td>
</tr>
<tr>
<td>1983</td>
<td>37.0%</td>
<td>11.4%</td>
<td>8.7%</td>
<td>4.5%</td>
<td>36.2%</td>
</tr>
<tr>
<td>1984</td>
<td>37.7%</td>
<td>11.4%</td>
<td>8.7%</td>
<td>4.5%</td>
<td>36.2%</td>
</tr>
</tbody>
</table>

Source: *COMPTES DE LA NATION, ANNUAL REPORTS (1981-1984); CONSEIL NATIONAL DU CRÉDIT, ANNUAL REPORTS (1981-1984).*

https://scholarship.law.upenn.edu/jil/vol9/iss2/1
EXHIBIT 1

FINANCIAL INNOVATION IS THE OUTCOME OF THE INTERPLAY OF SEVERAL FACTORS

DEMAND-SIDE FACTORS

1. Expected relative risk-adjusted pretax yield on financial and real assets
2. Taxation

THE MARKET ENVIRONMENT

1. Economic environment
   - Inflation
   - Level and variability of interest rates
2. Political environment

SUPPLY-SIDE FACTORS

1. Technological change
2. Competition among financial institutions
3. Legislation

Source: Prepared by the author.
**EXHIBIT 2**

*TAXATION OF FINANCIAL REVENUES AND FISCAL INCENTIVES IN FRANCE*

(1985)

**I. TAX-EXEMPT REVENUES**

1. Interest income from various savings accounts, including LEPs and CODEVIs (see EXHIBIT 3).

2. Interest income from specific government bonds (the first FF 1,000 on the "emprunt BARRE," the "emprunt 4.5% 1973," and the "emprunt 3.5% 1952").

3. The first FF 5,000 of revenue from bonds (can be cumulated with items 2 and 3 above).

4. The first FF 3,000 of revenue from stocks (if taxable income in 1984 did not exceed FF 310,000).

5. Revenue from life insurance contracts.

**II. TAXATION OF INTEREST AND DIVIDEND INCOME**

1. *Interest income:* Choice between (a) withholding of 10% to 12% of interest income which is recoverable in the form of a tax credit^1^ or (b) withholding of 25% of interest income with no further tax to pay *prélèvement obligatoire*.

2. *Dividend income:* Tax credit^1^ of 50% on dividend income (*avoir fiscal*).

**III. TAXATION OF CAPITAL GAINS**

1. Capital gains of up to FF 251,500 in 1984 are tax-exempt.

2. Beyond FF 251,500, capital gains are taxed at a rate of 16%.

3. Capital losses incurred in one year can be carried forward over the following five years.

**IV. TAX CREDITS AND TAX DEDUCTIBILITY**

1. *The Delors Law of 1983:* Under special equity savings accounts known as *Compte d’Epargne en Action* (CEA), 25% of the amount of French stocks purchased between January 1, 1983 and December 31, 1987 is deductible as a tax credit. The maximum amount of
purchases to which the 25% deduction applies is FF 7,000 per individual and FF 14,000 per household (can be cumulated with the tax-exemption on the first FF 3,000 of revenue from stocks). ²

2. The Monory Law of 1978: Individuals born before January 1, 1932 who did not open a CEA and who made a deduction over the period of 1978-1981 can deduct from their taxable income up to FF 5,000 (plus FF 500 for each of the first two children plus FF 1,000 for each child thereafter) worth of French stocks. ³ The limit is raised to FF 6,000 in the fifth year of deductions.

3. Under certain conditions, premiums paid under a life insurance policy may give rise to a tax credit.

Source: Compiled by the author.

¹ The tax credit works as follows: taxes are payable on an individual’s income, which includes all interest and dividend payments as well as the tax credit, and then the tax credit is deducted from the amount of taxes owed.

² Provided the funds remain invested for five years. Divesting without penalty before the end of the five-year period is only allowed in the case of unemployment or death. In case of early withdrawal, the tax deduction has to be paid back according to a special schedule.

³ Provided the funds remain invested for five years. Net withdrawals before the end of the five-year period are added back to taxable income in the withdrawal year. Gross withdrawals reinvested during the same year are not taxable.
EXHIBIT 3

RECENT FINANCIAL INNOVATIONS IN FRANCE

(Dates of Origin in Parentheses)

I. FINANCIAL INTERMEDIARIES

2. Venture Capital Funds (June 1983) (Fonds Commun de Placement à Risques).

II. FINANCIAL INSTRUMENTS

1. Non-Negotiable Debt Instruments (Deposit Type)
   i. Passbook Savings Account (June 1982) (Livret d'Épargne Populaire or LEP).
   ii. Industrial Development Accounts (June 1983) (Compte pour le Développement Industriel or CODEVI).

2. Negotiable Long-Term Debt Instruments
   i. Floating and Variable Rate Bonds.
   ii. Callable/Putable Bonds (1982).
   iv. Subordinated Perpetual Bonds (Fall 1985).

3. Negotiable Money Market Instruments
   i. Negotiable Certificates of Deposit (March 1985).
   iii. Treasury Bills (January 1986).

4. Performance-Linked Negotiable Debt Instruments
   i. Participating Perpetual Subordinated Notes (June 1983) (Titres Participatifs).

5. Equity-Linked Negotiable Debt Instruments

6. Quasi-Equity Instruments
   i. Investment Certificates (1983) (Certificats d'Investissement).
III. **FINANCIAL MARKETS**
1. The Second Market (February 1983).
2. Financial Futures Market (February 1986).

IV. **FINANCIAL SERVICES**
2. Limited Dealer-Based Activities When Market is Open (February 1983).
3. Unified Quotations (Stocks which were traded on both the forward settlement market and the spot market are not traded exclusively on a forward market with monthly settlement) (October 1983).
5. Memory or "Smart" Cards (1985).
6. Continuous Trading (Fall 1986).

V. **FINANCIAL TECHNIQUES AND SPECIAL FINANCIAL ARRANGEMENTS**
3. Employee Profit-Sharing Plans (early 1980s).

Source: Compiled by the author.

1 SICAV stands for Société d'Investissement à Capital Variable or Open-Ended Investment Company.
**EXHIBIT 4**

**COMPARISON BETWEEN THE OFFICIAL EQUITY MARKET AND THE SECOND MARKET**

<table>
<thead>
<tr>
<th>REQUIREMENTS FOR ADMISSION</th>
<th>OFFICIAL MARKET (Paris and six regional exchanges)</th>
<th>SECOND MARKET (Established in February 1983)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum market capitalization</td>
<td>About FF 150 million in Paris and about FF 30 million in the regional markets.</td>
<td>About FF 10 million.</td>
</tr>
<tr>
<td>Minimum number of shares</td>
<td>25% of capital and either 80,000 shares in Paris or 20,000 shares in the regional markets.</td>
<td>10% of capital.</td>
</tr>
<tr>
<td>Profitability</td>
<td>Company must have made a profit over the last three years.</td>
<td>No particular requirement.</td>
</tr>
<tr>
<td>Dividend policy</td>
<td>Company must have paid a cash dividend over the last three years.</td>
<td>No particular requirement.</td>
</tr>
<tr>
<td>Audit</td>
<td>Complete audit must be available for the most recent fiscal year.</td>
<td>Audit is not required until three years after admission.</td>
</tr>
<tr>
<td>Shareholders’ information</td>
<td>Companies must keep their shareholders informed about major events affecting them (e.g., labor relations) and release all relevant financial information.</td>
<td>Less stringent requirements — the release of semi-annual financial statements is not required.</td>
</tr>
<tr>
<td>Cost of listing</td>
<td>Varies from a</td>
<td>Reduced and spread</td>
</tr>
</tbody>
</table>

[https://scholarship.law.upenn.edu/jil/vol9/iss2/1](https://scholarship.law.upenn.edu/jil/vol9/iss2/1)
| **Liquidity and trading arrangement** | Relatively high liquidity. Auction market without dealer-type activities; it is essentially a broker-based market. | Guaranteed by a financial intermediary (a bank or a broker) that acts as a dealer and market maker for designated securities. |
| **Settlement** | Forward settlement (end of month) for most active stocks. Less active stocks are settled in cash (immediate settlement or spot market). | Immediate cash settlement for all stocks traded in the Second Market. |
| **Profile of listed companies** | The largest private firms in France are traded on the Paris Stock Exchange. Regional companies are traded on one of six regional exchanges. Securities, however, can be quoted in only one market. | The largest medium-sized companies are quoted on the Second Market of the Paris Stock Exchange; the others are quoted on regional exchanges. |

Source: Compiled by the author.