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The Industrial Finance Systems; Europe, U.S. and Japan

by

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INDUSTRIAL FINANCE SYSTEM IN EUROPE, U.S. AND JAPAN

Industrial finance has been discussed in the recent years with increasing intensity in the academic, financial, industrial and political arenas. The discussion has covered various aspects of the subject, including the role of financing arrangements in macro-policy as well as micro-policy, especially in relation to the so-called industrial policy. In view of the wealth and breadth of various studies in this area the aims of this paper are modest. They are, first, to give a rather succinct description of the way external finance is provided to firms in the U.S., the mature countries in Europe, and in Japan, in the wider framework of the evolution of the financial system; secondly, to comment briefly on why there are differences in the financial system and on the recent changes and the attitude of policy-makers to the evolution of financial systems; finally, to endeavour to link in a summary and preliminary way the evolution of financial systems and the arrangements of providing finance to firms, the process of economic change, capital accumulation and risk-taking, as seen in the Schumpeterian perspective, and the present day development.

Transfer of Savings and Financial System

The way finance is obtained by industry in Europe, the U.S. and Japan - the term "industry" being used here to denote firms engaged in activities carried on on a basis of profit and loss and comprising not only those in manufacturing industry but also in distribution and services - must be looked at against the background of the evolution of financial systems and the way the process of the economic development has proceeded in the past and is proceeding at present.

At the risk of over-simplifying, one can say that "financial system" can be defined as institutional arrangements designed to transfer savings from those who generate them to those who are willing to make use of them, above all wishing to invest, on terms and conditions inclusive of the degree of percentage risk mutually acceptable to both parties. Such institutional arrangements comprise in the first place the collection and transfer of savings by banks and other depositary institutions and the use they make of credit and allied markets; secondly, those covering the activities of capital markets and relating to the issue of and trading in marketable and transferable securities; and, finally, the activities of the markets complementary to the credit and capital markets, such as those providing hedging (or risk insurance) facilities such as the new futures markets, etc.

The character, functions and the role of a financial system changes as the economy in which it operates and the world economy change. Indeed, the evolution of a financial system is an integral and important element of the process of economic growth.

Looked upon from a highly simplified point of view we would say that in a low income and under-developed economy where savings are scarce, arrangements facilitating the transfer of savings are virtually non-existent. Those wishing to invest - excluding royalty and the state with their coercive powers of taxation - have to generate their own savings by abstaining from consumption and supplementing them by borrowing from other members of family, friends, acquaintances and moneylenders, who on the whole are few and have limited resources.

As an economy advances the transfer of savings is increasingly effected by financial intermediaries. Financial intermediaries are firms which collect savings and make them available to others at a price intended to provide them with adequate rate of return. They comprise at the early stage of development and indeed in some cases later on predominantly banks. Banks provide facilities for indiviuals and firms to place their savings with them in a liquid or semi-liquid form by way of demand and time deposits and they re-lend them mainly in the form of non-marketable short-term loans, (mainly for the financing of inventory), but secured in one way or another. As a rule at this stage of the development of an economy and of a financial system banks do not provide risk capital needed by firms, Such risk capital must be obtained by them from retained profits or raised by the owners of firms by recourse to friends and acquaintances. What banks do in this phase of evolution of the financial system and later on, apart from creating money and managing the payments system, is essentially to engage in the transformation of maturity of savings they collect and re-lend in the form of loans and also in the diversification of risk they are willing to incur and associated with the provision of short-term loans. During this phase of economic development a financial system is made almost entirely of financial intermediaries, as defined above, and, especially banks, behaving in the way described.

The extent to which "industry" will be able to undertake new investment during this stage of evolution of a financial system will be determined by profitability of the existing investment and the proportion of profits retained and the perception of banks (and other depositary institutions) of the risk involved in providing working capital needed for the employment of fixed capital.

As an economy expands the financial system changes. The process of evolution involves the emergence - alongside financial intermediaries, as defined above - also of capital markets and market intermediaries. The basic function they perform in the financial system is to offer to potential providers of funds opportunities to place part of their savings with potential users of funds in the form of long marketable loans and in the form of risk capital (equity), on terms acceptable to both sides and involving different degree of risk on the part of fund providers. The users of such funds invest them in new real productive and also in financial assets.

Accompanying the emergence of capital markets and market intermediaries there may also be a growing involvement of banks and other financial intermediaries (i.e. financial institutions) in the provision to the ultimate users of funds of long-term marketable and non-marketable debt finance and also in the provision of risk finance by way of purchase of equity and participations.

As economic growth proceeds a financial system changes again. First, alongside financial intermediaries and credit and capital markets and market intermediaries there come into existence new financial markets providing facilities for hedging financial risk (i.e. interest rate and exchange rate risk). Secondly, the financial intermediaries, above all banks and other depositary institutions, increasingly rely on funds obtained not from the ultimate savers but from other financial intermediaries using credit markets.

The evolution of the financial system as outlined in a stylised form above in addition to being influenced by and in turn influencing the process of economic growth is to a large extent determined by the technological advance as it works in the financial area, by regulatory framework which in fact determines the institutional structure and the division of various functions, and the process of financial innovation involving the creation of new financial instruments and techniques employed by those in the financial area.

Bank-orientated and Market-orientated Financial Systems and the Position of Main Industrial Countries

Against this background, financial systems in Europe, the U.S. and Japan can be divided, broadly speaking, into two different types. They are: the "bank-orientated" systems, the "market-orienated" system and the "strongly market-orientated" system. The bank-orientated systems appear to be associated with the first phase of the evolution of financial system and the first phase of economic development when savings are transferred from those who generate them almost entirely through the medium of financial intermediaries (i.e. banks and similar financial institutions) to those wishing to use them, mainly through non-marketable short-term debt instruments and also through medium-term non-marketable loans extended especially by banks and depositary institutions but also through these and other financial intermediaries taking direct participations and holdings in industry and commerce.

Bank-orientated systems are characterised by large degree of dependence of non-financial firms on finance obtained predominantly in the form of non-marketable loans from financial intermediaries and above all banks. However, some bank-orientated systems are also characterised by banks and other depositary institutions and other financial intermediaries taking equity holdings in industry and commerce.

Market-orientated systems are characterised by a large degree of dependence of non-financial firms on capital markets, that is to say, on capital, especially risk capital (equities), obtained through the medium of capital markets and market intermediaries and also long-term marketable debt (debentures and unsecured loans). In such a system financial intermediaries, and above all depositary institutions, obtain the bulk of their funds from ultimate savers.

In such a system the degree of risk-taking by way of undertaking investment projects is determined - as mentioned before - first, by the funds individuals can mobilise from their own resources including retained profits and funds directly raised for such purposes from other individuals; secondly, by the ability and willingness of financial intermediaries to complement such risk funds by secured "self-liquidating" short-term and medium-term lending and by so doing incur the degree of risk considered by them as appropriate; and, finally, by the degree of willingness and ability by depositary institutions to take participations in non-marketable risk capital needed for new projects and new enterprises.

In the market-orientated systems, which tend to be associated with advanced economies, the transfer of savings is effected not only through financial intermediaries but increasingly so by market intermediaries who operate in capital markets. Such transfers take the form in the first instance of sales in the primary capital markets of long-term marketable debt and also of risk capital (equities) needed by firms to supplement their internally-generated funds, and then by trading of such securities in the secondary markets, which in effect determine the cost of capital of individual firms. In such a system, the degree of risk-taking depends not only on the risk funds in the possession of those wishing to embark on new projects and complementary debt extended by financial intermediaries as well as direct participations by them, if permissible, but also on the risk

capital directly provided by the savers or through non-depositary financial intermediaries through the medium of capital markets in the light of their perception of risk. For the participants in capital market assets the risk is reflected by the relative prices (and yields) attaching to various listed securities. Capital markets, in addition to facilitating evaluation of risk and the raising of risk and secured capital, also facilitate transfer of resources to the new holders who think they can make better use of them by way of take-overs and mergers.

The main difference between a "strongly market-orientated" system and a "market-orientated" system is that in the former system "industry" can avail itself of the facilities of the new risk hedging markets and by so doing limit its risk exposure (at a cost) while the ability of financial intermediaries to provide secured capital is somewhat enhanced inasmuch as they can mobilise the funds which they wish to provide by raising them from other financial intermediaries which may not wish to incur additional risk.

Industry's dependence on funds raised through capital markets is as important as under a market-orientated system and the evaluation of risk by providers of funds is essentially the same but the cost of funds raised by financial intermediaries - and consequently the cost of such finance obtained by industry - is more market-determined, affecting financial intermediaries' perception of risk.

As the position is at present one can say, subject to the usual provisos, that a bank-orientated system is characteristic of the advanced countries on the Continent of Europe and also Japan and that in some of these countries banks have appreciable direct holdings and participations in industry. The U.K. and the U.S. have a market-orientated financial system, both of them moving now into strongly market-orientated phase but the U.S. being more advanced in this respect than the U.K.

In a bank-orientated system such as on the Continent of Europe and Japan risk capital in the form of equity listed on stock exchanges plays relatively small role for individual firms as does also marketable long-term debt in the form of long-term borrowing instruments issued through the medium of capital markets. This can be seen from a relatively small ratio of the value of equity in these countries as compared with the Gross National Product, and the relatively small importance of equity and long-term debt in the total of liabilities of non-financial enterprises.

In a market-orientated system prevailing in the U.S. and the U.K. the value of risk capital (equity) amounts to about 40% to 60% respectively of their Gross National Product. In these two countries risk capital represents about fifty per cent of the total liabilities of non-financial corporations and the remainder is made up approximately equally of long-term marketable debt and other types of debt.

Both in the U.S. and the U.K. banks and similar depositary institutions are now increasingly dependent on funds provided by other financial intermediaries which may have funds which they do not wish to use in the light of their perception of risk. This development is resulting in closer links between risk and cost of funds and has been accompanied by the rapid growth of new financial markets, such as futures, etc., which offer facilities for hedging financial risk associated with variability of interest rates and exchange rates. These facilities are used increasing by industry (i.e. non-financial corporations) for reducing risk relating to their current transactions. However, these markets cannot provide facilities for reducing economic risk attaching to a new investment.

Some Reasons responsible for differences in Financial Systems

Why do the financial systems and, consequently, the financing of firms differ in industrial countries? There is no simple answer to this question. The present position, as outlined above, can be said to be a result of an interaction of a number of different factors which have exerted their influence over a long period of time, going back to the beginning of the Industrial Revolution and in some cases before.

Among these factors there appear to be some which have played and continue to play a more significant role than others, even though it is not possible to quantify them. The more important ones, which have exerted and continue to exert a marked impact on the nature of a financial system are, first, the way various economies have grown; secondly, the attitude of regulatory authorities; thirdly, their experience of inflation; fourthly, technological advance applicable to the financial area; and, finally, the tax and other institutional arrangements as they have evolved in various countries.

The fact that industrialisation in the U.K. and in the U.S. was a result of private efforts and endeavours in which the State did not participate has been instrumental in the evolution of their market-orientated financial system. In these two countries firms which spontaneously decided to invest in new ventures and in the process of doing so created what were then new industries relied for the risk capital and long-term funds they needed, first, on retentions and then on capital markets. The existence of relatively large capital markets in these two countries - initially facilitating investment abroad or from overseas - enabled firms to raise long-debt and risk capital but on terms developed by participants in capital markets who evolved various criteria ("leverage", interest and dividend cover, etc.) in the light of their experience. These and other

criteria facilitated the assessment of risk. Furthermore, banks in England - by choice - concentrated on the provision of finance for working capital only, leaving firms to obtain permanent capital from other sources. This specialisation of functions was later reinforced by informal understanding until recently with the Bank of England, which, as a regulatory authority, preferred to see different types of finance being provided by different institutions and, above all, deposit banks abstaining from investment banking functions, that is to say the issue of risk and long-term debt on the primary capital markets (i.e. underwriting) and the taking up of participations in equity and debt capital.

In the U.S. banks, until the Glass-Steagall legislation of 1933, in addition to providing short-term working capital finance also engaged in underwriting and taking up themselves risk capital and long-term debt. Since 1933, when their functions were restricted they have limited in principle their activities to the provision of working capital finance.

The evolution of these two market-orientated financial systems has been also assisted, especially in the U.K., by the absence of "galloping" inflation, rapid growth in total and per capita income until the early twentieth century exceeding significantly that experienced by other countries, concentration of wealth accompanied by willingness to take risk, knowledge of opportunities made available through the operation of capital markets and a favourable tax climate (both as regards company and personal) taxation.

In the U.K. the evolution of the financial system accompanying the process of economic growth of a non-state-assisted type had been accompanied until World War II by an informal regulatory framework which was conducive to the separation of banking and investment banking functions. Banks concentrated on the provision of working capital and Issuing Houses and capital markets provided risk and long-term capital.

In the U.S., where until the early 'thirties there had been unit separation of investment banking and deposit banking and where economic growth was by and large of a non-state-assisted type, banks' involvement in the provision of risk capital and long-term debt had tended to be limited because of the regulations issued by the relevant authorities and because of the existence of capital markets which facilitated the flow of risk-bearing and long-term funds

In contrast to the spontaneously generated process of economic growth and informally supervised or only partially and weakly regulated evolution of market-determined financial systems in the U.S. and the U.K. one can say, at the risk of over-simplification, that the process of industrialisation on the Continent of Europe and in Japan has been actively State-assisted and sometimes State-engendered. It was assisted not only by protectionism, relying on the infant industry argument, but also by specific measures in the financial area, such as the creation of special banks designed to provide finance for industry, as well as encouragement given to financial institutions, in one way or another, to channel the savings to industry including provision of risk capital mainly by way of participations.

The way financial systems were expected to assist industry to expand differed in the main countries of Continental Europe. In France special banks were set up for that purpose; in Germany and also Austria and to a smaller extent Sweden, banks were free to have holdings of risk capital and long-term debt. While capital markets also came into existence, having been set up by the State, their use by domestic firms tended to be limited.

The way special investment banks in France operated has been discussed at length in literature and notwithstanding some difference of views it is accepted that they did perform a useful seminal role in setting up quite a few firms and industries. Their and other banks' role had tended to be limited by a strict control on the power of money creation, restricted by way of cover requirements.

In Germany and to a certain extent in Sweden and later on also in Austia, banks took direct participations of risk capital and long-term capital of various firms embarking on new investment projects. Thus banks had been providers of risk capital because of their connections with local firms and industries.

The important role played by banks in the provision of risk and long-term capital and which had been instrumental in the process of industrialisation can thus be ascribed to different regulatory framework associated with the role of the State but until World War I in conditions of Free Trade supported by protective measures designed to help infant industries.

The dependence of industry on bank finance in general and the provision of seminal risk capital and long-term capital also by banks was further reinforced by the experience of galloping inflation after World Wars I and II.

Recent Developments

While there are at present marked differences between bank-orientated financial systems on the Continent of Europe and Japan on the one hand and market-orientated systems in the U.K. and strongly market-orientated system in the U.S., strong forces have been at work in the recent years working toward slow convergence. On the Continent of Europe the broad thrust of policy has been above all to increase the role played by capital markets as regards the provision of external funds by way of risk capital and long-term debt by assisting the creation of a single and sufficiently large capital market ultimately envisaged to cater for all the European countries with the E.E.C. at its centre.

The policy has taken the form of offering by individual countries of special tax incentives to savers to channel their savings directly to firms in the form of risk capital and long-term debt, of making savers aware of the opportunities for such investment and of improving the machinery for transferring such savings. Special tax incentives have included exemption from personal taxes up to a certain amount - as exemplified by the Monay Law in France - and similar legislation in Belgium. Assistance to spread knowledge of opportunities available has comprised greater disclosure on the part of companies, while measures to widen capital markets have extended restrictions on banks' holdings of equities in Germany. At the same time all countries in one way or another have also aimed at the improvement of the machinery of transferring securities and reducing the cost of doing so ("real" and "informational" efficiency designed to improve "allocative" efficiency).

However, it cannot be stressed too strongly that despite the advance made towards raising the relative importance of capital markets financial systems on the Continent of Europe still retain their previous character and above all the close links between banking and finance in Germany, Austria, Switzerland, Sweden and somewhat different, but not very dissimilar, relationships in France.

Banks are still in the position where they are providers of risk funds but are closely involved in the evaluation of risk undertaken by individual firms and to a certain extent in the monitoring of performance and the control of risk and such remedial measures as may be required and involving changes in management. In addition to being closely involved in such tasks in relation to existing enterprises banks continue to be the predominant source of risk finance to new enterprises.

In the market-orientated system in the U.K. and the strongly market-orientated system in the U.S. the position is different, even though both countries provide special tax incentives designed to induce savers to channel their savings in the form of risk capital to small and large firms and have special Government-sponsored schemes to assist small firms.

The dependence of industry on risk capital raised on capital markets continues to characterise their financial arrangements though it has been increasingly supplemented by special firms providing risk funds to new firms ("venture capital").

In the case of large firms the evaluation of risk remains in the hands of existing firms but the decision whether or not to proceed with any investment will depend on evaluation of performance of a company by capital markets which determine the cost of capital of individual firms.

New and small firms, especially those of an innovative character, have now - especially in the U.S. - access to "venture capital" provided by special institutions concentrating in this area and obtaining their funds to a large extent from savers through the medium of capital markets.

Thus, the link between the provision of risk capital for new investment through the capital markets is maintained, resulting in the cost of capital of "venture capital" institutions being determined by capital markets but such bodies diversifying their risk, with financial depositaries providing secured working capital.

Thus, in countries with the market-orientated financial system, capital markets play a pivotal role in channelling risk funds directly from investors or using financial institutions as intermediaries.

Finance in the Schumpeterian Approach

The highly-compressed and simplified bird's-eye view of financial systems in the main industrial countries and the way non-financial firms are financed, outlined above, is essentially an overall picture. It has neither described nor attempted to discuss the links at a micro-level and their relationship to the macro-developments - the two features at the centre of the Schumpeterian approach.

The Schumpeterian approach - as emphasised by him and the students of Schumpeterian economics - was essentially concerned with the dynamics of re-allocation of resources between different firms and industries and consequently the process of economic growth as a whole in which technological advance, proceeding in a wave-like fashion, played an important role. But it was not only basic innovations themselves but their interaction with social changes and the ability of firms to raise and invest capital which are, in the Schumpeterian framework, responsible for rapid increases in productivity, markets and per capita income.

Both the students of Schumpeterian economics and students of growth economies as well as serious students of finance and financial economics would all agree that financial arrangements are merely one element in the complex process of economic growth and embodies in it economic adjustments.

With his Continental background Schumpeter's approach to the role of finance in the process of innovation, adjustment and growth was conditioned by the bank-orientated financial system as it evolved, above all in Germany and later on in Austria. In this system banks performed entrepreneurial function inasmuch as by virtue of their existing industrial holdings and participations they came across new investment projects which they considered worth undertaking and consequently financing both by way of providing risk

finance and long-term debt as well as short-term working capital finance with part of long-term debt and risk capital being subsequently re-sold, above all to long-term financing institutions such as insurance and similar companies.

Banks in this system were primary underwriters and buyers of the risk capital - being helped by the power of credit creation and contributing to the upward phase of the "Juglar and Kondratieff" cycle.

The entrepreneurial role performed by banks derived, first, from their role originally assigned to them by the State, from absence of significant capital markets, from the State-supported institutional arrangements allowing banks to combine deposit bank, underwriting and provision of risk capital, and also from their power of money-creation.

Acting as financial intermediaries banks in these conditions diversified their risk, but also monitored the performance of their investment and, it can be argued, endeavoured to control the degree of risk they would incur by ensuring that the entry of new firms was not too rapid.

However, it must be emphasised that, looked upon in the growth and adjustment framework, at least as originally perceived, once the original investment had been financed it was retained profits - obtained from temporary monopoly position associated with basic innovations and their application - that were the basic propellants of further investment.

As prior to World War I industry tended to be composed of a large number of small and medium size firms, once new invention had been financed the process of investment and the channelling of savings proceeded almost automatically until the peak of the cycle - the entrepreneurial and the original risk capital-providing functions being carried almost simultaneously.

As brought out in "Capitalism, Socialism and Democracy", published in 1943, Schumpeter was aware and indeed apprehensive of the increasing importance of a shift of innovation to and institutionalisation of such activity in large corporations, which started growing after World War I, and was accompanied by increasing concentration in the financial area. This trend has continued and indeed has been gathering momentum since the end of World War II.

A trend towards institutionalisation of innovations in the inter-war period and towards concentration in the financial area in the inter-war period was associated with the downward phase of "the Kondratieff cycle" which assumed the form of a world-wide deep depression in the 'thirties, the need for rationalisation of industrial structure rather than its expansion and basic change in the regulatory framework applicable to finance in the U.S. and involving the creation of special Government-owned financial institutions and the rescue of the financial system in Germany and Austria by the State.

Despite the involvement of the State in industrial finance the basic systems, as they had evolved before, remained unchanged, except for the formal separation of underwriting and deposit banking in the U.S., preceded by legislation restricting geographic expansion of deposit banking.

In retrospect in the second half of the inter-war period, characterised by a deep world recession and rationalisation and contraction of industry - apart from the planned economies including Germany - the question of the availability of access to savings for purposes of industrial investment was not of great importance, and the financial system had to deal with industrial re-structuring domestically and internationally. Innovative activity and such investment as was deemed desirable had been financed from retained profits being determined by financial arrangement available and the approach toward the role and importance of firms adopted by Schumpeter and based on pre-World War I experience on the Continent must be qualified very considerably.

The three basic features of post-World War II period in the Schumpeterian framework, viz. large increase in R. and D. spending undertaken directly and indirectly by Governments, the continuing concentration of innovative activity in the hands of large corporations, but also the flowering of new technologically advanced firms as illustrated by the emergence of Route 127 and Silicone Valley in the U.S. and similar developments elsewhere raise the issue of how to assess the role and place of finance from the Schumpeterian point of view. Should banks and other depositary institutions assume entrepreneurial functions as regards seeking out and selecting new investment projects and providing risk finance for them?

This problem is of the utmost importance at the present time when industrial economies are passing through a period of profound structural change involving contraction of old industries and the emergence of new industries. What are the institutional arrangements best suited to facilitate the process of re-allocation of resources among firms, that is to say the transfer of new savings and old savings embodied in the form of fixed assets?

In a modern, highly complex and sophisticated economy characterised by more equal distribution of income and wealth and experiencing profound changes in its industrial structure, the provision of finance and above all of risk capital to individual firms necessary to re-allocate resources becomes of primary significance.

What are the most efficacious ways of doing so depends also on the institutional arrangements governing the nature of the financial system, including the role of various financial intermediaries and, above all, banks; the role of capital markets and market intermediaries; and the way they function. This question applies as much to the Government-sponsored and financed R. and D. on the one hand - i.e. up

to what point should Government finance "basic" research and where should commercially-based firms begin to be involved - and on the other as to what should be the character of the financial system, i.e. should it be "bank-orientated" or "market-orientated"; whether or not there should be demarcation lines among various functions performed by financial intermediaries and market intermediaries, and what should be the stance of public policy to ensure an adequate degree of competition.

These are important questions of how to provide risk funds for new investment in a way that stimulates economic advance which is consistent with risk-taking proclivities of the savers yet makes it possible to undertake more risky ventures than they would be prepared to do themselves.

Ultimately, as planned economies are discovering now, unless market forces are allowed to exert their influence the progress may be slowed down and virtually brought to a halt.

While recognising that the State has a role to play in facilitating technological advance, that a large part of R. and D. will probably continue to be concentrated in the hands of large companies Schumpeter, if faced with the problems we face to-day, would probably support market-orientated financial systems. What are the detailed guidelines for setting up such a system in the present conditions, how to ensure that it functions efficaciously is the task which, though already tackled, is as yet still to be completed. It presents a challenge to those interested in finance, industry and the dynamics of the system and order which the Swedish Industrial Research Institute ranks so highly.

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